Hewlett-Packard Technical Computers HP and HP + Software Catalog

HEWLETT PACKARD

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1:4 Software Solutions 

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### **General Information**

Technical Computer Software Catalog for HP/HP-PLUS

- How, When to Reorder Your Catalog
- About This Catalog
- Additional Information about HP-PLUS

### **GENERAL INFORMATION**



### How, When to Reorder Your Catalog

The Technical Computer Software Catalogs are a two volume reference set of (1) all HP and HP-PLUS software available for the Series 9800, 1000, and 80 Technical Computers, and (2) all Desktop Computer Exchange Library contributed programs. Both volumes will be updated, revised, and reprinted every four months with planned issuance dates of July '82, November '82, March '83, July '83, etc. These catalogs are orderable only as a set and are listed on the HP Parts Price List under part number 5957-4315. Please do not attempt to order using the catalog part numbers shown on the individual catalogs. Before ordering your next catalog, insure you will be receiving the newest catalog by first checking the issue date with your nearest HP Sales Office. Or, as an alternative, you can call the 800 number shown in the next paragraph.

The Technical Computer Software Catalogs are available only from H-P's Computer Supplies Operation. CSO can take your catalog orders any of three ways:

- US purchasers with HP open account or VISA, Master Card, or American Express can order by calling CSO at 800-538-8787. In CA, AK, or HI call 408-738-4133.
- US or International purchasers can issue orders to their nearest HP Sales Office. The orders will be transmitted and shipped—from CSO.
- US purchasers can mail orders if payment is by credit card or check. No minimum size order applies, but there is a \$3.00 handling charge. Check the latest CSO catalog for more information about this method of ordering. You can obtain a catalog by calling your nearest HP Sales Office.

### **About This Catalog**

This catalog is your single reference source of software for HP Desktops, HP 1000's, and selected HP Series 80 computers.

#### It includes:

- Hewlett-Packard technical computer software developed, sold, and supported by HP worldwide.
- HP PLUS—professionally developed and supported software by approved third party software suppliers for use on HP technical computers. HP-PLUS Listed and Referenced software is purchased and supported directly from the supplier; HP PLUS Distributed software is purchased from HP and supported by the supplier.

To use this catalog, first refer to the HP/HP PLUS Index where the following information is provided:

- Nine major functional sections and a number of subsections within each section.
- Title listing of each HP/HP PLUS software offering.
- Computer series the software operates on: DCD is Series 9800, DSD is Series 1000, Cor. is Series 80.
- New listings are marked with a ★, HP PLUS listings are marked with a +.

When you have found a software listing of interest, refer to the appropriate software summary sheet using the seven digit application code number. The summary sheets will tell you who developed and markets the software (HP or HP PLUS supplier), complete description of the software, prices, support arrangements, applicable mainframes and peripherals, how to order, and who to contact for more information.

### Additional information About HP PLUS

The chart below summarizes important distinctions between Listed, Referenced, and Distributed software in the HP PLUS program

TYPE	QUALIFICATIONS	TARGET SOFTWARE	SOFTWARE SUPPORT	SOFTWARE SELLER
Listed	General evaluation on applications expertise, experience, support resources, marketing followup, credit and business stability.	Any application area	Software Supplier	Software Supplier
Referenced	Same as Listed plus Area Sales Mgr. recommendation. Financial stability and support plan approved by HP. Good ratings from 6 users (of which 2 are current HP computer users). HP SE recommendation and in business one year or more.	CAE,CAD,CAM CAT,CAW primarily	Software Supplier	Software Supplier
Distributed	Same as Referenced	Tools, Utilities, Languages primarily	Software Supplier	H-P/ Software Supplier

Software Suppliers interested in the HP PLUS program and HP PLUS merchandising should contact their HP Sales Representative for additional details.

## **HP/HP PLUS INDEX**

## HP/HP PLUS SOFTWARE INDEX

**KEY** — N indicates NEW listing

U indicates update (capability/equip., etc.)

+ indicates HP PLUS Software Supplier Listing

DCD = Series 9800 DSD = Series 1000 COR = Series 80 ESO = Series 9000

INS = Various instrument div's. applications and computers

### 1 COMPUTER—AIDED ENGINEERING AND DESIGN (CAE, CAD)

```
11 ELECTRONIC
   11.12001
              DSD
                     HP SPICE Circuit Simulation Program
 U11.21001
              DCD + MICRO-AMPSYN
              DCD + MICRO-COMPACT
 U11.21002
              DCD + High Speed AC Circuit Analysis (Formerly Comtran)
 U11.21003
 U11.21004
              DCD + High Speed FFT Waveform Analysis (Formerly Comtran)
   11.21005
              DCD + AC Power Source Analyzer
 U11.21006
              DCD + CADEC (optimization of circuits)
 N11.21007
              DCD + CADEC II
 U11.21008
              DCD + MAMA (Microwave Analysis)
   11.22005
              DCD + Waveform Analysis (9835/9845)
   11.22006
              DCD
                     Digital Simulation
              DCD
                     AC Circuit Analysis
 U11.22007
 U11.22008
              DCD
                     Linear Systems Analysis
 U11.22009
              DCD
                     Digital Filter Design
                     Waveform Analysis (9826/9836)
 U11.22010
              DCD
              DCD
                    HPL-FFT Binary Program
   11.22011
   11.31001
              Cor + Transient Response-Two Pole System
              Cor + Analysis and Design of Digital Filters and Discrete-Time Systems
   11.31002
              Cor + Linear System Analysis and Feedback Compensator Design
   11.31003
              Cor + SERCAL-Calculates Size of Electrical Services to Commercial Buildings
 U11.31004
              Cor + NICOLET/85
COR AC Circuit Analysis
   11.31005
 N11.32001
              COR
                    Waveform Analysis
 N11.32002
 N11.32003
              COR
                     Electronics Engineering Pac
 N11.42001
              ESO
                     HP Spice Circuit Simulation
12 MECHANICAL
   12.11001
              DSD + NISA Numerically Integrated Systems Analysis
   12.11002
              DSD + DISPLAY/DIGIT Finite Element Analysis
  U12.11003
              DSD + Structural Dynamics Modification TM (SDM)
   12.21001
              DCD + FESDEC (Finite Element System for Desktop Computers)
   12.21002
              DCD + THETA (Non-Linear Thermal Analysis)
  U12.21003
              DCD + Structural Dynamics Modification TM (SDM)
   12.21004
              DCD + MADAM (Model Analysis and Data Management)
              DCD + AIMS (Acoustic Intensity Measurement System)
   12.21005
   12.21006
              DCD + SMAP (Spectrum Mapping System)
   12.21007
              DCD + VUFAC (Thermal Radiation Viewfactor Calculations)
   12.21008
              DCD + EPRAN (ENTEK Programmable Spectrum Analyzer)
   12.21009
              DCD + EMAP (ENTEK Mapping System)
   12.21010
              DCD + EMODAL (ENTEK Modal Analysis)
   12.21011
              DCD + ESIM (ENTEK Sound Intensity Measurement)
 N12.21012
              DCD + ENESH (ENTEK Mesh Generation) 9825/26/36/45/Series 80
 N12.21013
              DCD + EBALANCE (Entek Multiplane Balancing) 9825/26/36/45/Series 80
13 CHEMICAL
 U13.31001
              Cor + Chemical Engineering Pac 1
  U13.31002
              Cor + Multicomponent Distillation
 N 13.31003
              COR + Flow Network Analysis
```

```
14 ARCHITECTURAL/STRUCTURAL
 N14.31001
              COR + Beam Span Analysis
 N14.31002
              COR + General Section Properties
 N14.31003
              COR + Composite Steel Beam Design
 N14.31004
              COR + Shear Wall Analysis
 N14.31005
              COR + Dynamic Load Analysis
 N14.31006
              COR + SD-2A (Steel Tube and Pipe Column)
 N14.31007
              COR + SP-1 (Snow Load Analysis)
              COR + SP-2 (Stepped Column Analysis)
 N14.31008
              COR + SP-3 (Bolted Framed Beam Connection)
 N14.31009
              COR + DF-3 (Re-Run Data Storage)
 N14.31010
 N14.31011
              COR + SAP-2D (Planar Trusses, Frames Analysis)
              COR + ODGAS (Numerical Gas Well Simulator)
 N14.31012
15 CIVIL
              DSD + GES/1000 General Earthworks System
   15.11001
 N15.11002
              DSD + Survey/Design
              DCD + SA-1/45 Shear Wall Analysis
   15.21001
   15.21002
              DCD + FA-1/45 Continuous Frame Analysis
   15.21003
              DCD + FA-2/45 Multi-Story Frame Analysis
   15.21004
              DCD + FA-3/45 General Frame Analysis
   15.21005
              DCD + FA-4/45 Beam Span Analysis
   15.21006
              DCD + FA-7/45 Space Frame Analysis
              DCD + TA-1/45 Truss Analysis
   15.21007
   15.21008
              DCD + DA-1/45 Dynamic Load Analysis
   15.21009
              DCD + GS-1/45 General Section Properties
   15.21010
              DCD + SD-1/45 Steel Beam Design
   15.21011
              DCD + SD-2/45 Steel Column and Base Plate Design
              DCD + SD-3/45 Composite Steel Design
   15.21012
              DCD + CD-1/45 Concrete Beam Design
   15.21013
   15.21014
              DCD + CD-2/45 Concrete Column Design
   15.21015
              DCD + CD-3/45 Flat Slab Analysis and Design
   15.21016
              DCD + CD-4/45 Footing Design
   15.21017
              DCD + PD-1/45 Prestressed Concrete Beam Analysis and Design
   15.21018
              DCD + GFD-1 Gravity Frame Design-1
              DCD + STRAAD Structural Analysis and Design
   15.21019
   15.21020
              DCD + CEADS
              DCD + Flow Network Analysis
   15.21021
   15.21022
              DCD + Fluid Flow Analysis
 N15.21023
              DCD + PINON (Pipe Network Organization)
 N15.21024
              DCD + PINEA (Pipe Network Analysis)
 N15.21025
              DCD + SEDAN (Sprinkler System Design and Optimization)
 U15.31005
              Cor + 85/CD-2 Reinforced Concrete Column Design
 U15.31006
              Cor + 85/FA-3 Plane Frame and Truss Analysis
              Cor + 85/CD-3 Flat Slab Analysis and Design
 U15.31007
              Cor + 85/SD-1 Steel Beam Design
 U15.31008
              Cor + 85/SD-2 Steel Column Design
 U15.31009
 U15.31010
              Cor + 85/CD-1 Reinforced Concrete Beam
              Cor + Civil Soft
 U15.31011
              Cor + PIPWAT
   15.31012
              Cor + P + MGEN
   15.31013
              Cor + L Trans
   15.31014
              Cor + HYDROL
   15.31015
   15.31016
              Cor + BACWAT-Backwater in Prismatic Channels
              Cor + HYDRAU
   15.31018
   15.31019
              Cor + R-WALL
   15.31020
              Cor + P + MCUL
 N15.31021
              COR + 3-D Projections Series 80, 9835/45
 N15.31022
              COR + Earthwork Series 80, 9835/45
              COR + Contour Mapping Series 80, 9835/45
 N15.31023
              COR + Topography Series 80, 9835/45
 N 15.31024
              COR + Profiles and Cross Section Series 80, 9835/45
 N15.31025
              COR + HP87 Civilsoft (Site Design Package)
 N15.31026
              COR Surveying Application
 N15.32001
16 GENERAL CAE/CAD
              DSD + CEADS-CADD Computer-Aided Design and Drafting
   16.11001
   16.11003
              DSD + ILS-Interactive Laboratory System
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```
DCD + OSLO-45 G Optical Design Program
      16.21001
      16.21002
                 DCD + Drafting Package-1 (DP-1)
      16.21003
                 DCD + Optical Concentrators of Solar Energy
      16.21004
                 DCD + Concentrator Solar Cell Modelling
      16.21005
                 DCD + Multi-Layer Dielectric Optical Filter Design
      16.21006
                 DCD + RDI V Roll Design System
     U16.21007
                 DCD + UDRAW
     N16.21008
                 DCD + PLOT Udraw Utility
                 DCD + XY Chart Udraw Utility
     N 16.21009
      16.22001
                 DCD + Engineering Graphics System/45
                 Cor + OSLO-85 Optical Design Program
     U16.31001
      19.31001
                 Cor + Radius of Curvature Well Survey Program
2 FACTORY AND PLANT AUTOMATION (CAM)
   21 MANUFACTURING ENGINEERING
   22 AUTOMATION MANAGEMENT
      22.11004
                 DSD + Message Dispatcher
     U22.11005
                 DSD + Vendor Rating - 1000
     U22.11006
                 DSD + Incoming Quality Management - 1000
                 DSD + Process Analysis - 1000
     U22.11007
     U22.11008
                 DSD + Acceptance Sampling - 1000
                 DSD + Production Quality Management - 1000
     U22.11009
                 DSD + Zeiss CMM Quality Management - 1000
     U22.11010
     U22.11011
                 DSD + Calibration - 1000
     U22.11012
                 DSD + Instruction Management - 1000
   23 FACILITY MANAGEMENT
      23.11001
                 DSD + CEMS/1000 (Centralized Energy Management System)
     N23.11002
                 DSD + Power Plant Supervisory System
      23.12002
                 DSD
                        DATACAP/1000-II Data Capture Software
   24 MATERIAL HANDLING
      24.21001
                 DCD + PROTRASTORES
   25 MACHINE CONTROL
      25.11001
                 DSD + UCC-Apt Numerical Control Software
     N25.11002
                  DSD + ABPLC/1000 Allen Bradley PLC Subsystems
      25.21001
                 DCD + Compound Surface Milling (CSM-2)
   26 PROCESS CONTROL AND MONITORING
                 DSD + J/PICS Process Information and Control System
      26.11001
                 DSD + EDOCON/1000 Process Supervisory System
     N26.11002
      26.21001
                 DCD + Natural Gas Flow Management and Accounting System
   27 PRODUCTION LINE CONTROL
3 COMPUTER-AIDED TESTING (CAT)
   31 LABORATORY TEST AUTOMATION
                 DCD + Digital Oscilloscope Simulator
      31.21001
      31.31001
                 Cor + Computer Coal
     N31.92001
                 INS
                        RF Test System Operating Software 9835/45
     N31.92002
                 INS
                        19800 Waveform Measurement Library 9826/36
   32 PRODUCTION TEST AUTOMATION
      32.11001
                 DSD + ATLAS/1000 Entry Level Compilation System (Model 92111E)
                  DSD + ATLAS/1000 Software Compilation System for Digital Applications
      32.11002
                        (Model 92111D)
      32.11003
                  DSD + ATLAS-80 Compilation System (Model 1080)
      32.11004
                  DSD + PLANA/1000
     N32.21001
                  DCD + Meter (Automated Meter Calibrator) 9826/36/1000
     N32.92001
                  INS
                        RF Test Set Starter Software 85F
                        RF Test Set Starter Software 9826/36
     N32.92002
                  INS
4 MATHEMATICS, STATISTICS
   41 MATHEMATICS
      41.11001
                  DSD + MATH/1000
      41.21001
                  DCD + PROTRATABLE
      41.21002
                  DCD + Simultaneous Non—Linear Equations
                  DSD + Protratables: 6 (Spread Sheet)
     N41.21003
```

Numerical Analysis Library, Vol. 1

U41.22001

DCD

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41.22002
                  DCD
                         Visi Calc®
     N41.31001
                  COR
                         muMATH/muSIMP-80
     N41.32001
                  COR
                         MATH Application PAC
   42 STATISTICS
       42.11001
                  DSD + IMSL Library
       42.11002
                  DSD + Minitab
     N42.11003
                  DSD + STAT/1000 (Statistical Analysis Tool)
       42.21001
                  DCD + Linear Equivalent Regressions (LINREG)
       42.21002
                  DCD + Cyber Box and Jenkins Time Series Analysis: Forecasting and Control
                  DCD + Cyber Deterministic Time Series Analysis
       42.21003
       42.21004
                  DCD + Cyber State Space Time Series Analysis
       42.22002
                  DCD
                         Basic Statistics and Data Manipulation
       42.22003
                  DCD
                         Regression Analysis Methods
       42.22004
                  DCD
                         Statistical Graphics
      42.22005
                  DCD
                         General Statistics
       42.22006
                  DCD
                         Nonlinear Regression
      42.22007
                  DCD
                         Monte Carle Simulation Utilities
      42.22008
                  DCD
                         Analysis of Variance
       42.22009
                  DCD
                         Principal Components and Factors Analysis
     U42.22010
                  DCD
                         Statistics Library
       42.31001
                  Cor + Data Evaluation Program for the HP85
     N42.32001
                  COR
                         General Statistics Application Pac
     N42.32002
                  COR
                         Basic Statistics/Data Manipulation
                         Regression Analysis
     N42.32003
                  COR
     N42.32004
                  COR
                         Statistical Analysis
   43 MODELING
     N43.11001
                  DSD + LINDO (Linear Programming System)
     N43.32001
                  COR Linear Programming
5 UTILITIES, TOOLS, OPERATING SYSTEMS
   51 UTILITIES
     U51.11001
                  DSD + Terminal Manager
     N51.11002
                  DSD + DOTPLOT/1000 (Dot Matrix Graphics Library)
     N51.11003
                  DSD + ATAPLOT/1000 (Autoplot Utility)
       51.21001
                  DCD + OEMSEC Program Security System
       51.21002
                  DCD + NODUP Program Security System
       51.21003
                  DCD + Memory Mapper Binary Program
       51.21004
                  DCD + Symbol Finder Binary Program
       51.21005
                  DCD + Dump Alpha Binary Program
       51.21006
                  DCD + Cross Reference Binary Program
       51.21008
                  DCD + Symbol Table Scrubber Binary Program
       51.21009
                  DCD + Comment Stripper Binary Program
       51.21010
                  DCD + Search and Replace Binary Program
       51.21011
                  DCD + Load Sub Binary Program
     U51.21012
                  DCD + Text Editor for BASIC Program SAVE Data Files
       51.21013
                  DCD + Master String Editor
       51.21014
                  DCD + Memory Mass Storage Binary Program
       51.21015
                  DCD + Performance Monitor Binary Program
                  DCD + Move and Copy Binary Program
     U51.21016
     U51.21017
                  DCD + LIF Utilities
                  DCD + 9826/9836 Utilities Package
     U51.21018
       51.21019
                  DCD + Programmers Aids
       51.21020
                  DCD + Security and Revision Utility
                  DCD + Programmers 'Aids' Package
       51.21021
     N51.21022
                  DCD + File Easy 45 (Extensive File Handling Functions)
                  DCD + Command File/Memory Mass Storage ROM
     N51.21023
                  DCD + Programmer's Tool Kit ROM
     N51.21024
     N51.21025
                  DCD + Start-Up (Autostart Utility)
     N51.21026
                  DCD + Screen Dump (HP 8566/68 Screen-To-Copy Util.) 9826/35/36/45/1000
       51.22001
                  DCD
                         IBM Flexible Disk Utility
       51.22002
                  DCD
                         Hard Disk Utility
                         Flexible Disk Utilities
       51.22003
                  DCD
       51.22004
                  DCD
                         9111A Graphics Tablet Utility
       51.22005
                  DCD
                         Utility Library
                         85 to 9835/9845 Data Utilities
       51.22006
                  DCD
                         Graphics Utilities (2D)
       51.22007
                  DCD
       51.22008
                  DCD
                         Graphics Utilities (3D)
```

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51.22009
              DCD
                     Advanced Graphics Utilities
   51.22010
              DCD
                     Utility II Library
   51.22011
              DCD
                     Forms Utility
   51.22012
              DCD
                     QUERY/45 Data Base Management
              DCD
                     DBM Statistics Linkage
   51.22013
                     9826/9836 BASIC Utilities Library
              DCD
 U51.22014
   51.22015
              DCD
                     7908/9845 B/C Integrated Backup Utility
              Cor + SEC 85/Program Security System
 U51.31001
52 TOOLS
   52.11001
              DSD + SCONS/1000 Source Control System
                                                                        Computer
                                                                        Museum
   52.11002
              DSD + DELTA/1000 File Difference Locator
   52.11003
              DSD + FBUG/1000 Source-Level Fortran Debug
   52.11004
              DSD + TFORM/1000 Text Formatter
              DSD + VEDIT/1000 Text Editor
   52.11005
   52.11006
              DSD + SPELL 1000 Automatic Proofreader
              DSD + Cross Assemblers for Microprocessors
   52.11008
   52.11009
              DSD + Meta-Assemblers for Bit-Slice or Microprogrammed Processors
   52.11010
              DSD + Simulators for Microprocessors
   52.11011
              DSD + ATLASCAN ATLAS Syntex Checker/Verifier
   52.11012
              DSD + Pascal Development System
   52.11013
              DSD + SCREEN/1000
   52.11014
              DSD + SORT/1000
   52.11015
              DSD + Dimension (IMAGE Transaction Generator)
   52.11016
              DSD + VIEW 1000 On-Line Forms & Data Entry System
   52.11017
              DSD + NDX-Sort
              DSD + QUESTOR
   52.11018
   52.11019
              DSD + Q FORM
   52.11020
              DSD + Q TEST
              DSD + Q MAIL
   52.11021
   52.11022
              DSD + Q SORT
 N52.11023
              DSD + WPIT/1000 Word Processing Package
 N52.11024
              DSD + Insight (Programmer's Tool for Reports)
              DSD + TASP (Transparent Activity Sampling Program)
 N52.11025
 N52.11026
              DSD + SLIP (Software Library Indexing Program)
 N52.11027
              DSD + CLU (Cartridge List Utility)
   52.12001
              DSD
                     RTE Profile Monitor
   52.12002
              DSD
                     RTE Microprogramming Package
   52.12003
              DSD
                     Signal/1000 Digital Signal Processing Package
  U52.12004
              DSD
                     Graphics/1000-II Device Independent Graphics Library (DGL)
  U52.12005
              DSD
                     Graphics/1000-II Advanced Graphics Package 3D (APG-3)
 N52.12006
               DSD + Symbolic DeBug/1000
   52.21001
              DCD + AP445 Array Processor
   52.22003
              DCD
                    HPL to BASIC Translator
   52.22004
              DCD
                     Model 9030 System Exerciser
  U52.22005
              DCD
                     9835/9845 to 9826/9836 BASIC Language Translator
 N52.42001
               ESO
                     Graphics/9000 Device—Independent Graphics Library (DGL)
 N52.42002
               ESO
                     Basic 3D Graphics
               ESO
 N52.42003
                     Graphics/9000 Advanced Graphics
 N52.92001
              INS
                     InteGral/60 Interactive Graphics Library
53 OPERATING SYSTEMS
   53.12001
              DSD
                     RTE-L and RTE-XL Real Time Executive Operating Systems
   53.12002
              DSD
                     RTE-IV B Real-Time Executive Operating System with Session Monitor and
                     RTE IV B Executive-Only System
   53.12003
               DSD
                     RTE-6/VM Real-Time Executive Operating System
                     RTE-A.1 Real-Time Executive Operating System
   53.12004
               DSD
               COR
  N53.32001
                     UCSD p-System® /FORTRAN-77
 N53.32002
               COR
                     UCSD p-System® /PASCAL
  N53.42001
               ESO
                     HP-UX/9000 Operating System
54 DIAGNOSTICS
   54.12001
               DSD
                     L-Series Diagnostic Packages
   54.12002
               DSD
                      On-Line Diagnostic and Verification Package for HP 1000 Computer Systems
6 LANGUAGES
61 BASIC
```

BASIC/1000 L and BASIC/1000 D Subsystems

DCD + GSCA-3111 BASIC to FORTRAN Translation Kit

61.12001

61.21001

```
U61.22001
              DCD
                     9826/9836 BASIC 2.0 Language System
 N61.42001
              ESO
                     Basic Language System
62 FORTRAN
              DSD
   62.12001
                     FORTRAN 4X Compiler
              DSD
                     HP 1000 FORTRAN 77
   62.12002
              DCD + GSCA-3101 FORTRAN to BASIC Translation Kit
   62.21001
              DCD + FORTRAN to BASIC Syntax Translator
   62.21002
 U62.21003 - DCD + IEM FORTRAN 77 (For PDS 35 and 45)
 N62.32001
              COR
                    UCSD FORTRAN-77
 N62.42001
              ESO
                     FORTRAN 77/9000 Compiler
63 PASCAL
   63.12001
              DSD
                     Pascal/1000 Compiler
              DCD + PDS 35/45 Program Development Systems
 U63.21001
              DCD
                     9826/9836 Pascal Language System
 U63.22001
              COR
                     UCSD PASCAL®
 N63.32001
 N63.42001
              ESO
                     Pascal Compiler/9000
64 ASSEMBLY
   64.21001
              DCD + IEM Macro-Assembler
   64.22001
                   Assembly Programmers Utility
65 COBOL
   65.11001
              DSD + Cobol/1000 Compiler
69 OTHER
   69.11001
              DSD + HP/C Compiler
   69.21001
              DCD + 9826 Multi FORTH
              DCD + Telesoft-PSE/ADA Compiler
 N69.21002
 U69.22001
              DCD 9826/9836 HPL 2.0 Language System
7 MANAGEMENT
71 RECORDS MANAGEMENT
 N71.31001
              COR
                    dBASE II
 N71.32001
              COR
                    HP 83/83 File Manager
72 FINANCIAL/COST MANAGEMENT
   72.11001
              DSD + General Ledger
   72.11002
              DSD + Accounts Payable
   72.11003
              DSD + Accounts Receivable
              DSD + Payroll
   72.11004
   72.11005
              DSD + A Small Manufacturers Business Software Tool Kit
              DSD + Ledger Systems®
   72.11006
   72.11007
              DSD + Lawyers Ledger Systems®
 N72.11008
              DSD + Order Entry—Accounts Receivable
 N72.11009
              DSD + General Ledger—Accounts Payable
 N72.11010
              DSD + Payroll
              DSD + Medical Billing System
 N72.11011
   72.21002
              DCD + Master Accounting System
   72.21003
              DCD + Job Cost
   72.21004
              DCD + Accounting System
              DCD + PROTRAVEST
   72.21005
   72.21006
              DCD + Return on Inventment Analysis
              COR + General Ledger
 N72.31001
 N72.31002
              COR + Accounts Receivable
              COR + Accounts Payable
 N72.31003
              COR + Peachpay™ Payroll System
 N72.31004
              COR + Inventory Control
 N72.31005
              COR + TAJ I-85 (The Accounts Journal)
 N72.31006
 N72.31007
              COR + TAJ I-87 (The Accounts Journal)
              COR + DATA-FLEX Payroll System
 N72.31008
 N72.31009
              COR + DATA-FLEX Accounts Receivable
              COR + DATA-FLEX General Ledger
 N72.31010
              COR + ADS-Inventory
 N72.31011
              COR + ADS—Payroll COR + ADS—Accounts Receivable
 N72.31012
 N72.31013
 N72.31014
              COR + ADS—Accounts Payable
              COR + ADS-General Ledger
 N72.31015
 N72.32001
              COR Financial Decisions
```

```
73 QUALITY CONTROL MANAGEMENT
      73.21001
                 DCD + Calibration—9826
                 DCD + Process Analysis—9826
      73.21002
    N73.21003
                 DCD + SQC-1 (Statistical Quality Control)
   74 PERSONNEL MANAGEMENT
      74.11001
                 DSD + The People Planner
   75 ORDER MANAGEMENT
      75.11001
                 DSD + Order Entry
     N75.11002
                 DSD + Inventory-Purchasing
     N75.11003
                 DSD + Order/1000
   76 PROJECT MANAGEMENT
      76.21001
                 DCD + BAI*PERT
      76.22001
                 DCD Project Management
                 COR + Milestone™ (Project Management)
     N76.31001
   77 DATA MANAGEMENT
                 DSD + IMAGE Interface
     U77.11001
     N77.11002
                 DSD + Entry/1000
                 DSD + Data-Base/1000
     N77.11003
                 DSD + Report/1000
     N77.11004
                 DSD + PFAS
      77.11005
                        IMAGE/1000 Data Base Management System
      77.12001
                 DSD
                        IMAGE/9000 Data Base Management
     N77.42001
                 ESO
   79 OTHER
     N79.11001
                 DSD + Med/1000 (Physician's Management System)
                  DCD + Word Processor-WORDWISE
     U79.21001
                  DCD + Automated Office Pac-1: Word Processing and Mailing List
     U79.21002
     U79.21003
                 DCD + Word Processor with Integral Spelling Checker-WORDWISE 2
     U79.21004
                 DCD + MASTER WORD PROCESSOR (9845)
      79.21005
                  DCD + Report Writer/45
      79.21006
                  DCD + PROTRASTAR
     N79.21007
                  DSD + MINIPRO: 6 (Simplified Word Processor)
                  DCD + PROTRASTAR: 6 (Test/Word Processor)
     N79.21008
                 DCD + LISTER (Flexible Output Formatter for POS/HP Pascal)
     N79.21009
     N79.21010
                  DCD + Stencil
                  DCD + Diagraph
     N79.21011
     N79.21012
                  DCD + Plan/Variance
                  DCD + CSC/PIE
     N79.21013
                  DCD + CSC/Vertical
     N79.21014
     N79.21015
                  DCD + CSC/Horizontal
                  DCD + CSC/Linear
     N79.21016
     U79.22001
                  DCD
                        Forecasting
     U79.22002
                  DCD
                        Graphic Presentations
      79.22004
                  DCD
                        List Management
      79.22005
                  DCD
                        Computer-Aided Presentations (9845)
     N79.31001
                  COR + Professional Tax Plan
                  COR + Personal Tax Plan
     N79.31002
                  COR + SUPERCALC™
     N79.31003
     N79.31004
                  COR + Wordstar
                  COR + Mailmerge™
     N79.31005
                  COR + Spellstar™
     N79.31006
                  COR + Write/Idea™—Word Processing 83/85
     N79.31007
                  COR + Write/Idea™—Word Processing 86/87
     N79.31008
     N79.32001
                  COR
                        Graphics Presentations Pac 83/85
     N79.32002
                  COR
                        Graphics Presentations Pac 86/87
                  COR
     N79.32003
                        VisiCalc<sup>®</sup> Plus App's Pac 83/85
     N79.32004
                  COR
                        VisiCalc<sup>®</sup> Plus App's Pac 86/87
8 COMMUNICATIONS
   81 DATA COMMUNICATIONS
      81.12001
                  DSD
                        DS/1000-IV Network Software
      81.12002
                  DSD
                        RJE/1000 Remote Job Entry Package
      81.22001
                  DCD
                        Asynchronous Terminal Emulator
      81.22002
                  DCD
                        High Speed Asynchronous Terminal Emulator
                  DCD
                        2780/3780 RJE Terminal Emulator
      81.22003
```

81.22004

DCD

Terminal Manager

81.22005	DCD	Distributed Systems 35/45
81.22006	DCD	Terminal Emulator for the 9826/9836
81.22007	DCD	DSN/Data Link Software for 9835/9845
N81.32001	COR	Data Communications Pac
N81.42001	ESO	Basic Asynchronous Terminal Emulator
N81.42002	ESO	HP-UX Asynchronous Terminal Emulator
82 I/O		
82.12001 82.12002	DSD DSD	Multipoint Terminal Subsystem Software Package Asynchronous Multiplexer Subsystem Software Package
N81.32001 N81.42001 N81.42002 <b>82 I/O</b> 82.12001	COR ESO ESO	Data Communications Pac Basic Asynchronous Terminal Emulator HP-UX Asynchronous Terminal Emulator Multipoint Terminal Subsystem Software Package

### 83 TELECOMMUNICATIONS

### 9 MISCELLANEOUS

+ Adventure-the original by Crowther & Woods
Computer Games Library
BASIC Training Pac 83/85
BASIC Training Pac 86/87
Games Application Pac
Games II Application Pac

# 1 Computer-Aided-Engineering& Design (CAE, CAD)

- 11 Electronic
- 12 Mechanical
- 13 Chemical
- 14 Architectural/Structural
- 15 Civil
- 16 General CAE/CAD
- 19 Other

·			



Application Code:

11.12001

Mainframe(s) **HP 1000 F-Series** 

Program Title

**HPSPICE Circuit Simulation Program** 

### **Program Description**

HPSPICE is a general purpose circuit simulation program that serves as a computer aid for use in the analysis and verification of electronic circuits. The simulation program is based upon the circuit simulator known as SPICE2 (version 2G.5), developed at the University of California at Berkeley. An interactive user interface with graphical output, defined by Hewlett-Packard, has been added to improve engineering productivity while designing and testing analog circuits, or analog and digital IC's.

### **Features**

- General purpose circuit simulation based upon renowned public domain software
- Active device models with parameters
- Multiple analysis types
- Large circuit capacity
- Interactive, easy-to-use interface
- High-quality graphical output
- Multiple user environment
- Interactive or batch mode operation
- Major vendor support (Software Subscription Services)

### Powerful Simulation Capabilities

#### Circuit Elements

HPSPICE circuits may contain one or more of the following elements:

- Resistors
- Capacitors
- Inductors
- Mutual Inductors
- Voltage/Current Controlled Sources
- Transmission Lines
- Diodes
- Bipolar Junction Transistors (BJT's)
- Junction Field Effect Transistors (JFET's)
- MOS Field Effect Transistors (MOSFET's)

### Types of Analysis

HPSPICE can perform

- non-linear DC analysis with the facility to generate transfer characteristics,
- linear AC small-signal analysis with noise and distortion simulation,
- and non-linear transient analysis with Fourier analysis options.

These analyses can be conducted at different temperatures as specified by the user.

### **User Commands**

The user interacts with HPSPICE by using the following commands:

#### COMMAND PURPOSE

CIrcuit specify the present circuit
CReate create a circuit file
DEqueue remove a simulation from the queue

DUmp display the tabular results of a simulation EDit edit the circuit file EXit exit from HPSPICE GRaph plot the simulation results HElp display this table of commands

LIst display the circuit file

NOdes list the circuit nodes available for

graphing

PUrge purge the circuit's files
QUeue add a simulation to the queue
SEt set various graphics attributes
SHow list the graphics attributes
SImulate schedule a simulation
STatus display HPSPICE status

SYntax schedule a syntax check of the present

circuit

toggle between alphanumeric and

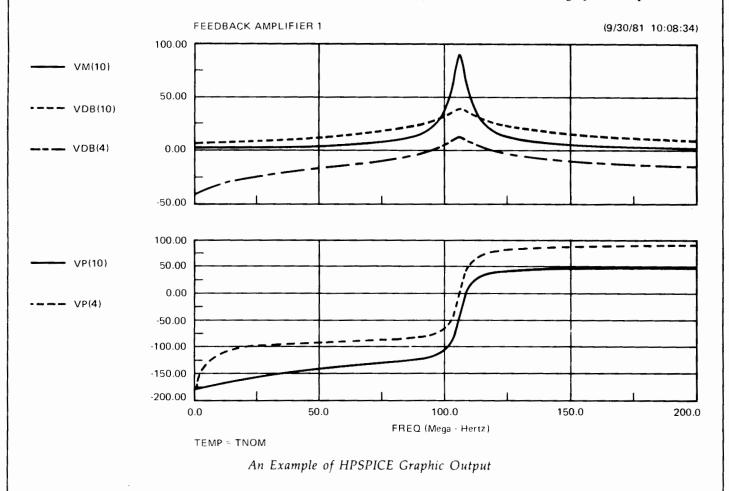
graphics displays

### **Graphical Output**

The output from an HPSPICE simulation is generated using the Graphics/1000-II software, and has the following characteristics:

- 1. All graphs are labeled with a title, a timestamp, and a temperature appropriate to the circuit analysis results being displayed.
- Axes are labeled in engineering units (millivolts, nanoseconds, etc.)
- 3. All graphs are automatically and uniformly scaled for any output device.
- All curves on one graph either appear as different line types on softcopy devices, or different colors on multicolor hardcopy devices.

A typical simulation results in graphical output as follows:



### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Model 65 Systems; F-Series computers

Price: \$15,000, \$10,500, \$10,500 HP Software Part Number: 92091A, 92091R, 92091M

Memory Options: Minimum 768 kb required for 1 user; each additional user requires 32 kb.

ROMs: N/A

Peripherals: HPSPICE supports HP 2647/48, HP 2608, HP 2623, HP 9872, HP 7580

Comments: DGL (Device-Indepent Graphics Library, 92841) required.

HPSPICE is supported on RTE-6/VM Systems only.

HPSPICE is supported with Software Subscription Services (92091S/W)

Contact your local HP Sales Office for additional information



**HP USE ONLY** 

I.D. Code:

Application Code: 11.21001

**Expiration Date:** 

Product Name:

Mainframe(s):

MICRO-AMPSYN TM

HP-9845B-150/250

### PRODUCT DESCRIPTION:

MICRO-AMPSYN is a direct synthesis computer-aided design program used in designing high frequency and/or microwave matching networks, including amplifier input, and interstage circuits.

The MICRO-AMPSYN program synthesizes lumped element matching networks and provides for transformation of the lumped design to approximate transmission line equivalents. MICRO-AMPSYN allows the user to select the necessary topology to absorb the parasitic elements. Impedance transformations are implemented by the program to provide the proper networks for the specified terminating impedance levels. Because the networks are the result of exact calculations, they provide excellent initial values for multistage amplifier circuit. If necessary, these values may be even further refined by the utilization of MICRO-COMPACT.



### Program Features:

- Synthesis of lossless coupling networks of prescribed ripple, bandwidth, and gain slope versus frequency.
- Adjustment of frequency response to assure incorporation of parasitic elements, including multiple choices of reflection zero locations.
- Synthesis of various network topologies and reflection zeros having the same frequency response, which allows selection of an interstage design based on parasitics to be included, and impedance transformation needed.
- Even or odd order networks.
- Automatic topology inspection to prevent synthesis of illegal 0 topology.
- Listing of available valid topoligies. 0
- Automated implementation of internal network transformations to provide desired load impedance.
- Automated frequency and impedance scaling of synthesized networks.
- Automated transformation from lumped to distributed forms.

Retail Price:

\$2,500 U.S.

\$2,750 International

Prices subject to change without notice

Company Name: Comsat General Integrated Systems

Contacts:

Henry Wong

Microwave Division

Address: 1131 San Antonio Road

Palo Alto, CA 94303

Telephone: (415) 966-8440

SYSTEM REQUIRE	EMENTS		
Computer Model:	HP-9845B/T	Periphera	ls:
Memory:			*
Operating System:			
Other Software:			
CUSTOMER SUPP	PORT		
<ul><li>☑ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul> Support Services Average Ave	☐ Canada ☐ Mexico ☐ Latin America (all) ☐	□ □ South Africa	□ Far East (all) Japan □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
□ on-site consultin	g □ on-site syste	ems engineers	☐ program modification
	Information and Pricing:  NING/DOCUMENTATION		Price:
Hailing Avanable.			FROE.
Documentation Ava	ilable: User Manual		Price: \$25.00
Documentation Ava	ilable in other languages: (nor	ne)	
NUMBER OF INS	TALLATIONS:	DATE OF FIRST INSTAL	LATION: 1981
ADDITIONAL INF	ORMATION		
License agr	eement is required.		
RESPONSIBILITIES This software was of	STATEMENT developed by an independent software	are supplier for operation on HP	equipment. The supplier is solely

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**HP USE ONLY** 

I.D. Code:

Application Code: 11,21002

**Expiration Date:** 

Product Name:

MICRO-COMPACT TM

Mainframe(s):

HP-9836, HP-9826 HP-9845B-150/250

### PRODUCT DESCRIPTION:

The MICRO-COMPACT program analyzes and optimizes two-port linear circuits in the frequency domain. The basic building blocks, selected from MICRO-COMPACT's circuit library, are combined into sub-circuits that are interconnected to form the final circuit. The program can handle complex interconnected schemes including multiple feedback paths and combinations of series, parallel and cascade connections. A flexible graphics package enables the designer to plot and map vital circuit information with both rectangular or polar coordinates.

The optimization is based on an adaptive random search technique that seeks to find the global minimum. The error function of the optimization is user-selectable.

MICRO-COMPACT is self-documenting by means of "HELP" messages, and an internal editor is provided for easy circuit modifications. Complete circuits may be stored on data cartridges for later use.

### Program Features:

- Circuit analysis
- Constrained circuit optimization (up to 15 variables)
- Linear or logarithmic frequency scaling
- o "Map" option to examine effects of component changes
- Tabulated output on CRT or printer
- o Grahical (Smith Chart or rectangular) output on CRT or printer
- o Internal editing
- o Cascade, parallel, series, parallel-series, series-parallel, and branch connections
- o Optimized/edited files saved for future use/reference
- o Group delay computation

### Applications:

- o High, low, and bandpass circuits (active and passive)
- o Broadband transistor amplifiers (with and without feedback)
- o Magnitude and phase equalizers
- o Lumped and distributed matching networks
- o Oscillators and reflection amplifiers (linear approx.)
- Antenna circuits
- o Multiplex and switching-type circuits
- o Power amplifiers and class-C devices (linear approx.)
- Transistor modeling

Retail Price:

\$5,000 U.S.

\$5,500 International

Prices subject to change without notice

Company Name: Comsat General Integrated Systems

Contacts:

Henry Wong

Microwave Division Address: 1131 San Antonio Road

Palo Alto, CA 94303

Telephone: (415) 966-8440

SYSTEM REQUIREM	MENTS		
Computer Model: HP-	-9845B/T	Peri	pherals:
Memory:			
Operating System:			
Other Software:			
CUSTOMER SUPPO	RT		
Geographic Area Supp	ported:		
☑ U.S. (all regions)	☐ Canada ☐ Mexico ☐ Latin America (all) ☐ ☐	D	
Support Services Avai	lable:		
	⊠ mail-in sup <sub>l</sub> □ on-site syst		<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Inf	formation and Pricing:		
CUSTOMER TRAINI	NG/DOCUMENTATION		
Training Available:			Price:
Documentation Availa	ble: User Manu	al	Price: \$25.00
Documentation Availa	ble in other languages: (no	ne)	
NUMBER OF INSTA	LLATIONS:	DATE OF FIRST IN	STALLATION: 1981
ADDITIONAL INFO	RMATION		
License agreemen	nt is required.		
RESPONSIBILITIES ST	ATEMENT		

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### Referenced Software Supplier **Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 11.21003

**Expiration Date:** 

Product Name:

### HIGH SPEED AC CIRCUIT ANALYSIS with OPTIMIZATION (AC-CAP)

Mainframe(s): Anv 9845

with 187K Memory

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

A binary matrix reduction algorithm runs 25 times faster than BASIC for either the original Opt 150 processor or the new high speed bit-slice Opt 250 processor.

Binary graphics displays virtually instantaneous graticule line and lettering.

Optimization of selected component values to achieve a modified response.

### COMPONENT TYPES

- · Resistors positive or negative
- Capacitors
- Inductors
- Voltage controlled current sources

Opamp model included as data file

#### FREQUENCY DOMAIN GRAPHS

- Magnitude
- Phase
- Phase Delay
- Group Delay
- Impedance Magnitude
- Impedance Phase

The program generates a frequency domain data file which represents the transfer function of the network. The companion program "S-WAVE" then loads this data file to plot the time domain graphs for:

#### TIME DOMAIN GRAPHS

- Impulse Response
- Square Wave Response

- Step Response
- Output Waveform, given any stimulus waveform (user defined)

### **TOLERANCE ANALYSIS**

Minimum and maximum frequency domain results for any number of prototypes with per cent tolerances specified for each component.

#### **OPTIMIZATION**

- Up to 30 frequency targets
- Up to 25 simultaneous variable components
- Up to 4 simultaneous parameters, weighted
  - Magnitude
  - Phase
  - Input Impedance
  - Output Impedance

36 nodes with 187 K memory

98 nodes with 318 K memory (special order)

Interactive circuit editing for adding, deleting, or changing values or location of components.

Mass storage data files store circuit data for future use. Data files previously stored by H-P AC Circuit Anaylsis programs will load into this program.

Plots graphs on HP-9872A plotter, with labeling on either plain paper or K & E graph paper.

Previously marketed as a part of "COMTRAN".

Retail Price: \$50000

Company Name: JENSEN TRANSFORMERS

Contacts: Deane Jensen

Address:

10735 Burbank Blvd., N. Hollywood, CA 91601

Telephone:

(213) 876-0059

SYSTEM REQUIR	EMENTS		
Computer Model:	Any 9845 187K		Peripherals: 9872A Plotter Optional
Operating System:			
Other Software:			
CUSTOMER SUPF	PORT		
Geographic Area Su	upported:		
Worldwide	□ Canada		Far East (all)
Support Services A	vailable:		
	t <b>√</b> mail-in s	support systems engineers	remote dial-in I program modification
	Information and Pricing:		
	\$50/hr after firs	st hour.	
CUSTOMER TRAI	NING/DOCUMENTATION		
Training Available:			Price:
Documentation Ava	ilable: 100 Page Manual		Price:
Documentation Ava	ilable in other languages:		
NUMBER OF INS	TALLATIONS: 25	DATE OF FIRS	T INSTALLATION: April, 1981
ADDITIONAL INF	ORMATION		
	Will be available Janua	ary 1983 on 9826, 9	9836, HP87, HP86.
RESPONSIBILITIES	STATEMENT		

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**HP USE ONLY** 

I.D. Code:

Application Code: 11.21004

**Expiration Date:** 

**Product Name:** 

# HIGH SPEED FFT WAVEFORM ANALYSIS (S-WAVE)

Mainframe(s):

Any 9845

with 187K Memory

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

A binary FFT algorithm runs 3 times faster than BASIC for either the original Opt 150 processor or the new high speed bit-slice Opt 250 processor.

Binary graphics displays virtually instantaneous graticule lines and lettering.

This program is used to display the time domain graphs for "AC-CAP".

#### HIGH SPEED AC CIRCUIT ANALYSIS with OPTIMIZATION:

- Impulse Response
- Step Response
- Square Wave Response
- Output Waveform, given any stimulous waveform (user defined)



The program includes all functions of the HP Waveform Analysis program in one program file so there is no waiting for tape during operation of the program functions. A cursor, operated by the cursor control keys, traces the curve point by point with numerically displayed values at the bottom of the screen.

#### STANDARD FUNCTIONS:

- FFT
- IFT
- Hanning
- POWER
- CORRELATION
- MODULATION corrected
- CROSS POWER multiple entry

- CONVOLUTION
- EDIT DATA enhanced
- PRINT DATA
- PLOT DATA Graphics or 9872A
- INPUT DATA -
  - Keypad Numerical
  - Mass Storage
  - Digitize 9872A

### ADDITIONAL FUNCTIONS:

- DECONVOLUTION derives transfer function of network given input and output waveforms.
- COMPLEX MULTIPLICATION
- ADDITION of 2 time domain files
- SUBTRACTION of 2 time domain files
- MULTIPLICATION of 2 time domain files
- DIVISION of 2 time domain files
- TRIGGER TIME OFFSET CORRECTION
- SET TO ZERO ALL DATA POINTS starting at point N.
- GENERATION OF STIMULUS WAVEFORM
  - SQUARE WAVE TRUNCATED
  - LOW PASS FILTERED SQUARE WAVE
- QUADRATURE ROTATION by 90°
- INTEGRATION Time Domain
- DIFFERENTIATION Time Domain

Comprehensive DISPLAY shows data contents of both data files and special conditions of data at all times, as well
as chronological history of calculations performed to each data file.

A companion file is included for the user to write his own program segments to create data files (such as sampling voltmeter data acquisition) which can be stored to mass storage for use with the main "S-WAVE" program. Additional program "DATAIN" is available separately to operate the 3582A Spectrum Analyzer or 3437A System Voltmeter.

Previously marketed as part of "COMTRAN".

Retail Price:

\$50000

Company Name: JENSEN TRANSFORMERS Contacts: Deane Jensen

Address:

10735 Burbank Blvd., N. Hollywood, CA. 91601

Telephone:

(213) 876-0059

SYSTEM REQUIR	REMENTS		
Computer Model:	Any 9845	Peripheral	s: 9872A Plotter
Memory:	187K		Optional
Operating System:			
Other Software:			
CUSTOMER SUP	PORT		
Geographic Area S Worldwide U.S. (all regions) East South Midwest West Support Services A	☐ Canada  ) ☐ Mexico ☐ Latin America (all) ☐		
phone-in suppor	rt Mail-in suppo	ort	☐ remote dial-in
	ng	ns engineers	☐ program modification
	Information and Pricing:		
\$5	0/hr after first hour		
CUSTOMER TRA	INING/DOCUMENTATION		
Training Available:			Price:
Documentation Ava	ailable: 100 Page Manual		Price:
Documentation Av	ailable in other languages:		
NUMBER OF INS	STALLATIONS: 25	DATE OF FIRST INSTALL	ATION: April 1981
ADDITIONAL INF	FORMATION		
	Will be available January 1	983 on 9826, 9836, HP8	37, HP86.
RESPONSIBILITIES	S STATEMENT		

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### Software Supplier Product Summary

### **HP USE ONLY**

I.D. Code:

Application Code: 11.21005

Expiration Date:

Product Name:

AC Power Source Analyzer

AC 9845B/C
9826/9836

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Infotek AC Power Source Analyzer is a comprehensive electronic research and testing tool for AC power systems. Operating in conjunction with an automatic data acquisition system, the Analyzer can provide a simple ATE capability with a minimum of equipment and programming. Transient and steady-state three-phase voltage and current data captured by a data acquisition system or digital oscilloscopes may be read into the calculator with the Analyzer's universal I/O module and used to calculate RMS power profiles, transient response, and power spectrum. A batch processing capability permits the Analyzer to perform a series of analysis on a number of samples without operator intervention.

### Features

- -Fully-automated three-phase power analysis.
- -Provides true RMS power, transient deviation and response time, THD analysis, spectral analysis, and RMS voltage and current profiles.
- -Simple I/O module permits simple interfacing to an existing data acquisition system.
- -Provides auxiliary filtering using either recursive or non-recursive digital filters.
- -Graphic output provided either on the system CRT or 9872 or 7500 plotter.
- -Easy-to-use function-key operation and comprehensive status display.
- -Provides facility for wareform library, facilitating system test documentation.
- -Data loading may proceed independently of analysis, with selected analysis performed on multiple samples with the computer unattended.
- -Comprehensive reference manual provides documentation on system internals, permitting the user to add new analysis routines.

Retail Price:

\$3,000.00

Company Name: Infotek Systems Contacts: Theo Stevens

Address:

1400 N. Baxter St.

Anaheim, CA 92806

Telephone:

714-956-9300

800 854-3469

### SYSTEM REQUIREMENTS Computer Model: 9845B/C Peripherals: 9885 or 9895 9826/9836 Printer Memory: 300k bytes minimum 98035 Real-time Clock Plotter Operating System: Firmware (optional) Other Software: I/O ROM, Assembly Execution ROM, Graphics ROM, Advanced Programming ROM, Mass Storage ROM. CUSTOMER SUPPORT Geographic Area Supported: ■ Worldwide □ Canada □ Far East (all) Europe (all) □ U.S. (all regions) □ Mexico ☐ South☐ Midwest☐ West □ South Africa □ Australia/N.Z. Support Services Available: ☼ phone-in support ☼ on-site consulting ☼ mail-in support ☐ remote dial-in ☐ program modification Additional Support Information and Pricing: Software Notification Service (SMS) \$ 50/yr. Comprehensive Support Service (CSS) \$500/yr. CUSTOMER TRAINING/DOCUMENTATION Training Available: Price: Price: Documentation Available: AC Power Source Analyzer Reference Manual \$30.00 (2 included) Interfacing/Internals Guide Documentation Available in other languages: \$25.00 (1 included) NUMBER OF INSTALLATIONS: 1 **DATE OF FIRST INSTALLATION:** 6/80 ADDITIONAL INFORMATION Consulting Services for interfacing to existing data acquisition system available at extra charge. INFOTEK SOFTWARE SUPPORT PLAN INFOTEK will have a two-tiered support plan, corresponding to its two different kinds of products. The first tier will be for utility package customers and stand-alone customer for the manufacturing and engineering data control systems. The second will be for full-support customers of the complete application packages. ON-SITE CONSULTING ON-SITE consulting will be provided at a negotiated charge.

#### RESPONSIBILITIES STATEMENT

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### Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 11.21006

**Expiration Date:** 

Product Name:

Mainframe(s):

CADEC

HP 9835A, HP 9845B/C, HP 9826A, HP 9836A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Unique program features include the capabilities of optimization of circuits to measured or desired data, numerical and graphic output of results, reuse of calculated or measured results within a new analysis and Fourier Transform.

The program is running in the frequency domain and accepts active and passive elements as well as complex interconnections. The Fourier Transform capability allows for transformation of results into the time domain to calculate the system answer on a large variety

of periodic input time functions. For maximum efficiency the program is based on the "twoport" analysis technique that does not require matrix inversions and is the fastest technique for BASIC computers. For further speed up, the internal twoport representation is the cascade (A) matrix form. the advantage to be defined even for ideal elements, e.g. controlled voltages and ideal transformers, and allows a quick and direct calculation of the cascade, parallel and series connections without the need for intermediate transformations into Z- or Y- representations. However, the twoport approach restricts to allowable interconnections of circuit elements, which would limit the usefulness of the program. Therefore, the program includes a nodal analysis interconnection routine that accepts virtually all types of interconnections, including special elements, e.g. operational amplifiers, lattice networks, three-port results of previous nodal connections, multifeedback circuits, etc.

Because complex twoports may also be defined as elements of a nodal interconnection, the number of necessary nodes is small and small computation times achievable. The only restriction is that the Y-matrices of the elements to be connected are defined. CADEC, therefore, combines the efficiency of twoport analysis and the flexibility of nodal analysis.

One of the most significant features of the program is its optimization capability. Based on the search technique with presettable initial search distance, the program automatically changes more and more to a gradient approach, as the distance to the minimum reduces. This assures a high probability of finding the true optimum.

Retail Price:

\$1,000

Company Name: Communications Consulting Corp. Contacts: Dr. Ulrich L. Rohde

Address:

52 Hillcrest Drive

Upper Saddle River, NJ 07458

Telephone:

(201)825-7966

SYSTEM REQUI	REMENTS			
Computer Model: Memory:	HP9835A, HP9845B/C, HP9836A 32 K min user read/v		Peripherals: 2671G 9872B/C/S/T	
Operating System	:HP enhanced BASIC	Ž		
Other Software:	9845B/C - Graphic St 9835A - Plotter ROM	ubsystem		
CUSTOMER SUF	PPORT			
Geographic Area	Supported:			
😾 U.S. (all regions	s)			_
Support Services				
	ort 🔀 mail-in sur ing 🗀 on-site sys	pport stems engineers	□ remote dial-in □ program modification	
Additional Suppor	t Information and Pricing:			
CUSTOMER TRA	AINING/DOCUMENTATION			
Training Available	: Not necessary; sup totally sufficient	plied documen	tation Price:	
	vailable: Included with 370 pages, inc examples vailable in other languages:		rt Price:\$100 each for Spare Manual	
NUMBER OF IN	STALLATIONS: 150+	DATE OF FIRST	r INSTALLATION: 1973	
versions when ware is the wares that than previous	nich led to the curr broughly tested and cost up to \$60,000. busly known software	ent CADEC sof can be compar Execution t packages.	e since 1973 in various tware package. The so ed with commercial softime substantially fast e-presentation in other	ft- t- er
<del></del>				

### RESPONSIBILITIES STATEMENT

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## **Software Supplier Product Summary**

### **HP USE ONLY**

I.D. Code:

Application Code: 11.21007

**Expiration Date:** 

Product Name:

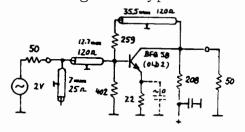
CADEC II

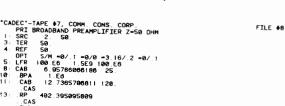
Mainframe(s):

HP 9835A, HP 9845B/d HP 9826A, HP 9836A

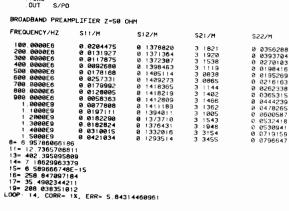
PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

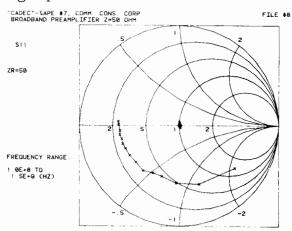
Enhanced version of CADEC including field effect transistors and micro-wave components with automatic end effect correction for the open stub micro strip techniques corrected up to 4.0 GHz. following are typical examples of the graphics:

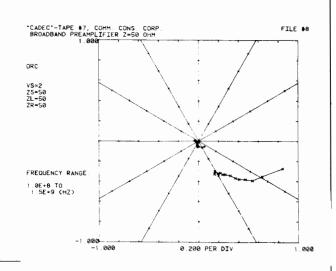












Retail Price: \$2,000

Company Name: Communications Consulting Corp. Contacts: Dr. Ulrich L. Rohde

Address:

52 Hillcrest Drive

Upper Saddle River, NJ 07458

Telephone:

(201)825-7966

### SYSTEM REQUIREMENTS Peripherals: 2671G Computer Model: HP9835A, HP9845B/C, HP9826A 9872B/C/S/T HP9836A Memory: 32 K min user read/write memory Operating System: HP enhanced BASIC Other Software: 9845B/C - Graphic Subsystem 9835A - Plotter ROM **CUSTOMER SUPPORT** Geographic Area Supported: □ Europe (all) □ Far East (all) □ \_\_\_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_ □ \_\_\_\_ □ \_ □ Worldwide x Canada x U.S. (all regions) □ Mexico Europe (all) East Latin America (all) Midwest West Support Services Available: ☐ phone-in support ☐ on-site consulting ☐ mail-in support ☐ on-site systems engineers remote dial-in program modification Additional Support Information and Pricing: CUSTOMER TRAINING/DOCUMENTATION Training Available: Not necessary, supplied documentation Price: totally sufficient Documentation Available: Included with software - about Price: \$100 each for 370 pages, including many examples Spare Manuals Documentation Available in other languages: DATE OF FIRST INSTALLATION: August 1982 NUMBER OF INSTALLATIONS: ADDITIONAL INFORMATION This software is a micro-wave version of CADEC and has been thoroughly tested by several test sites. Because of its mechanical treatment it is much faster than currently known micro-wave softwares. We are interested in inquiries regarding the presentation in other countries. RESPONSIBILITIES STATEMENT

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## Referenced Software Supplier Product Summary



### **HP USE ONLY**

I.D. Code:

Application Code: 11.21008

Expiration Date:

Product Name:

Mainframe(s):

MAMA<sup>TM</sup> (Measurement and Microwave Analysis)

HP-9845

### PRODUCT DESCRIPTION:

MAMA is an calibration, control, and analysis program for use with the HP-8409 Microwave Automatic Network Analyzer. MAMA calibrates the HP-8409 ANA, measures all S-parameters on 1- and 2-port devices, and converts frequency-domain data into the time domain. Interactive graphics allow easy analysis of elements and location of discontinuities. Analysis data may be printed or plotted. Over 20 parameters may be viewed, including rectangular plots of magnitude, angle, VSWR, gain, and return loss. Polar plots of input and output impedance are also available.

S-parameter data can be converted to the time domain by a discrete convolution process to produce the network impulse time response. MAMA implements a virtual time-domain reflectometer with 18 GHz bandwidth to give ideal impulse response data. Both reflection and transmission parameters may be converted and analyzed.

Retail Price:

\$5,000 U.S.

\$5,500 International

Prices subject to change without notice

Company Name:

Made-It Associates, Inc.

21 Daniel Drive

Burlington, Mass 01803

Telephone:

Address:

617-272-6992

Contacts:

Harold Stinehelfer

### SYSTEM REQUIREMENTS MAMA is supplied on two tape cartridges for any HP-9845 Desktop Computer with graphics and at least 186K bytes of memory.\* Mandatory Hardware: HP-8409B/C Automatic Network Analyzer. Optional Instruments and Hardware: HP 9872 Graphics Plotter, HP-9876 Graphics Printer, HP-9895 Flexible Disk Memory. CUSTOMER SUPPORT Geographic Area Supported: □ Europe (all) ★ Munich ☐ Far East (all) ☐ Worldwide □ Canada 🛪 <u>Japàn</u> ☑ U.S. (all regions) ☐ Mexico Latin America (all) D \_\_\_\_\_ □ East ☐ South ☐ Midwest □ South Africa ☐ Australia/N.Z. ☐ West Support Services Available: M mail-in support ☐ remote dial-in □ on-site consulting □ on-site systems engineers ☐ program modification Additional Support Information and Pricing: Software Support Agreemant available at nominal annual fee. CUSTOMER TRAINING/DOCUMENTATION Price: Training Available: By special arrangement only. Documentation Available: Price: User manual \$ 45.00 Documentation Available in other languages: (none) DATE OF FIRST INSTALLATION: 1981 **NUMBER OF INSTALLATIONS:** ADDITIONAL INFORMATION

### RESPONSIBILITIES STATEMENT

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Application Code:

11.22005

Mainframe(s) 9845B/C

Program Title

### **WAVEFORM ANALYSIS**

### **Program Description**

The Waveform Analysis package contains routines – such as Fast FourierTransform (FFT) and Inverse Fourier Transform (IFT) – for analyzing signals in an "offline" manner. Typically, with this pack, a user would enter data (in the time domain), perform an FFT on the data (convert to frequency domain), calculate power, and display results in graphic form on the CRT (9845) or peripheral plotter.

Time-domain (or frequency-domain) data points may be input directly and stored in a data file either through an external analog-to-digital converter (using system input/output operations) or through manual keyboard entry. The number of time-domain points that the system can analyze is dependent upon computer type and memory options (see Table 1). The maximum number of frequency-domain points is equal to one-half of the number of time-domain points.

	Memory Size	Full Precision	Short Precision	Integer Precision
9845B/C	Opt. 204	16384	32768	32768
	Opt. 206	32768	32768	32768
	Standard	2048	4096	8192

### Maximum Number of Time-Domain Data Points

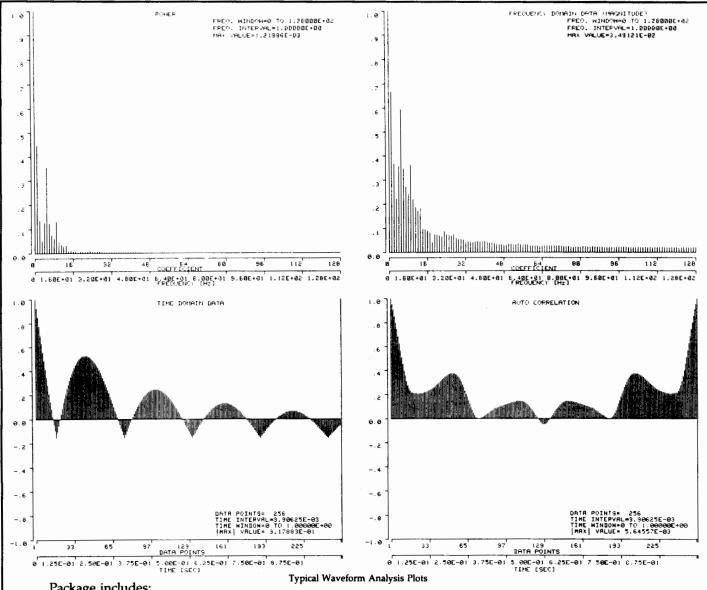
This software package performs the following analyses:

- Hanning Function.
- Power Spectrum.
- Auto Correlation calculated from time-domain or frequency-domain data; acts to segregate
  the signal from surrounding noise. Main application is with sinusoids; auto correlation of
  complex signals may be too difficult to interpret.
- Cross Correlation very similar to Auto Correlation; deals with relationship between two separate signals. Useful for determining relative delay between signals.
- Cross Power gives a frequency-domain representation of the Cross Correlation function.
   Provides a power versus frequency representation of mutual power and phase between two signals.
- Double-Data Input provides for entering information on two separate functions.
- Convolution transforms a function, which can be recognized as the product of two other functions, to the other domain.
- Change Domain used with Double-Data Input to transform time-domain data, or vice versa.
- Modulation applies a modulation function (H Cos ωt) to time-domain data causing a frequency shift of the data in the frequency domain.
  - F(s) Equal calculates Fourier coefficient on data.
  - F(s) Unequal similar to F(s) Equal, except data can be spaced unequally.

The following table lists FFT and IFT calculation times.

Number of	FTT	IFT
Data Points	9845B	9845B
256	17	15.5
512	35	32.5
1024	73	69

FFT/IFT Calculation Times



### Package includes:

• A manual containing operating instruction, theory of operation, and examples.

A pre-recorded tape cartridge containing the software.

A special function key template.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B/C

Price: \$500

HP Software Part Number: 09845-12600

**Memory Options:** See chart

> ROMs: Opt. 311

> > Opt. 700

Peripherals: Opt. 560/561

A 9872 plotter can also be used with the 9845. Comments:



## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

11.22006

Mainframe(s) 9845B/C

Program Title

**Digital Simulation** 

### **Program Description**

The HP 9845 Digital Simulation software pack provides a comprehensive library of primitive logic elements for use in constructing your circuit (see below). The pack also offers an assortment of macro devices. These represent often-used circuit components, and let you treat complex functions such as counters and decoders as elementary building blocks. Through a special MACRO CREATION function, the pack provides the capability of constructing your own MSI device and storing it for future use.

Once you have determined what logic elements your circuit will need, the logic network description in the pack simply requires that an arbitrary node number be assigned to the output of each gate or logic element in the circuit. The program can handle circuits with up to 500 nodes.

As you enter the topology of each circuit, the program automatically validates it. Thus, you catch mistakes as they are made, thereby eliminating the problem of compounding errors through several layers of a complex circuit. Also, user prompts in the form of "Help" messages provide easy, on-the-spot definition of program details.

### Primitive Element Menu

Buffer Tri-state Buffer Inverter Tri-state Inverter AND Gate NAND Gate OR Gate **NOR Gate EXOR Gate** JK Flip-Flop, Positive Edge JK Flip-Flop, Negative Edge IK Flip-Flop, Master/Slave D Flip-Flop, Positive Edge D Flip-Flop, Negative Edge D Flip-Flop, Master/Slave One-Shot

After your circuit has been entered in the form of elements and node numbers, it is ready for simulation. You key in your test pattern (initial inputs) just once. Subsequent simulations can use the same initial input data pattern. Also, output from one simulation can be stored on tape and later used to drive other circuits.

A major software feature is the ability to detect and display potential propagation delay time problems by using three-state simulation. Three-state simulation can spot when a transient signal (produced when the inputs to a gate are changing) causes a temporary conflict in timing. This possible conflict, glitch or spike, is displayed in the timing diagram as shown.

The pack also allows enlarging or magnifying glitches or other circuit timing details. This windowing function can isolate a segment of the time-scale and enlarge it for a closer look, as illustrated.

As the simulation proceeds, you may stop at any point or single-step through time values to easily examine node states. As an added debugging tool, you may also preselect various "break-points" to halt the simulation whenever you wish.

You have a choice of CRT displays or graphic output on a printer or plotter. Timing diagrams can be graphically displayed on the CRT or transferred to the optional internal line printer. Or you may choose to have the signal relationship displayed in tabular form. In either case, you can store the simulated circuit for future use.

#### **MACRO Device Menu**

SYNCHRONOUS 4-BIT COUNTERS 74LS160A – Decade, Direct Clear 74LS161A – Binary, Direct Clear 74LS162A – Decade, Synchronous Clear 74LS163A – Binary, Synchronous Clear SYNCHRONOUS UP-DOWN

COUNTERS 74LS190 – BCD 74LS191 – Binary

SYNCHRONOUS UP-DOWN DUAL-CLOCK COUNTERS 74LS192 – BCD With Clear 74LS193 – Binary With Clear SHIFT REGISTERS

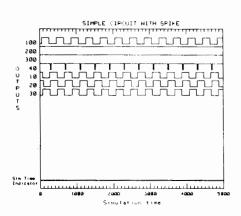
74LS164 – 8-Bit Parallel Output 74LS165 – 8-Bit Parallel Input 74LS194A – 4-Bit Bi-Directional Universal

74198 – 8-Bit Bi-Directional Universal

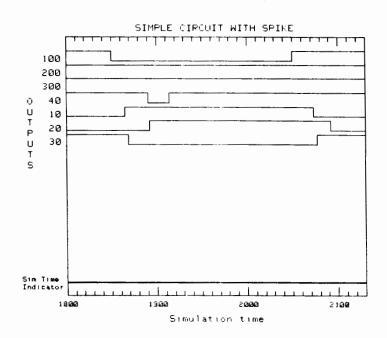
MULTIPLEXERS

74150 – 1 of 16 Data Select/Multiplex 74LS151 – 1 of 8 Data Select/Multiplex 74LS153 – 4 Line to 1 Line Multiplex 74LS4 – 4 to 16 Decoder/Multiplex 74LS157 – 2 to 1 Data Select/Multiplex 74LS158 – 2 to 1 Inverting Output

Multiplex



The program can detect timing conflicts and expand the area of interest to permit closer examination.



### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B/C, Opt. 150 or 250

**Price:** \$750

HP Software Part Number: 09845-12610

Memory Options: Opt. 204

**ROMs:** Opt. 311, Opt. 700

Peripherals:

Comments:

### **HEWLETT-PACKARD** SOFTWARE SUMMARY

Application Code:

11.22007

GROUND IS NODE 0

NODE CONNECTIONS

FROM, TO, (+), (-)

Mainframe(s) Series 200; 9845B/C

Program Title

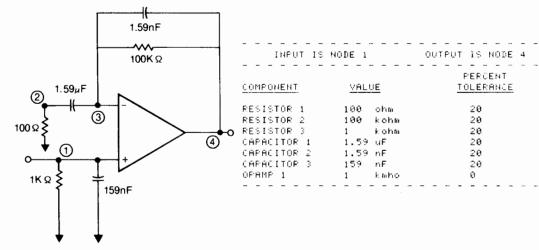
### AC CIRCUIT ANALYSIS

### **Program Description**

The AC Circuit Analysis package provides a means to analyze the frequency response of linear circuits. After the circuit has been specified to the computer, plots of voltage magnitude, voltage phase, time delay, or complex impedance vs. frequency can be obtained.

This pack can analyze circuits with the following components: resistors, capacitors, inductors, and voltage-controlled current sources. Many other components can be modeled by combinations of these devices. For example, voltage-controlled voltage sources can be modeled with a voltage-controlled current source connected to a very small resistor.

To input a circuit, node numbers are first assigned on the schematic. Components are then specified by their type, nodal connections, value, and tolerance. After these components are entered, any node may be specified as an input port; any other node may be specified as an output port. Once analysis is complete, the EDIT function allows modification of any circuit value without re-specifying the entire circuit.



ESISTOR 1		100	ohm	20	0	2		
RESISTOR 2		100	kohm	20	3	4		
RESISTOR 3		1	kohm	20	1	0		
APACITOR	1	1.59	uF	20	2	3		
APACITOR	2	1.59	nF	20	3	4		
APACITOR -	3	159	nF	20	1	0		
PAMP 1		1	kaho	ପ	0	4	1	3
			·					

This example shows how a schematic is input.

Key features of this software package are:

- Calculation of voltage magnitude, voltage phase, time delay, and complex impedance for any node.
- Log, linear sweep, or single-frequency-points analyses.
- Dynamically alterable frequency intervals for greater resolution.
- Tolerance mode which calculates the minimum and maximum frequency response after considering all individual component tolerance.
- Up to 25 nodes and 100 components may be analyzed.

Voltage Magnitude vs Frequency Plot Demonstrating the Tolerance Feature. Impedance vs Frequency Plot.

### Package Includes:

A manual containing operating instruction, theory of operation, and examples.

A pre-recorded tape cartridge containing the software.
A special function key template.

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9826A/9836A Price: \$500

9845B/C \$500

HP Software Part Number: 98825A

09845-12620

Memory Options: 98256A\* Opt. 204\*

Language/ROMs: BASIC 2.0

Opt. 311, Opt. 700,

Opt. 560

Peripherals:

Plotter (optional)

Plotter is optional

Printer (optional)

Comments:

\*More components and nodes can be analyzed with larger memories.

## **HEWLETT-PACKARD** SOFTWARE SUMMARY



11.22008

Mainframe(s) Series 200; 9835A/9845B/C

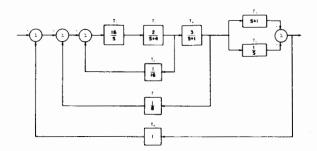
Program Title

#### LINEAR SYSTEMS ANALYSIS

### **Program Description**

The Linear Systems Analysis package is capable of analyzing single input/single output linear systems. These linear systems can either be in the form of a control system block diagram, or a single transfer function in Laplace (S) notation. This pack can analyze block diagrams which have 20 or fewer blocks and nodes, and transfer functions to the order 19 or less. Included are modules for entering the system design into the computer, plotting routines for analyzing the system performance, and editing tools which are used for modifying the system design.

System parameters can be entered following "prompts" from the desktop computer. If the system can be characterized by a single transfer function, the coefficients of both the denominator and numerator are entered. Otherwise, a block diagram of the system is described to the computer as a tree structure which is entered via individual node names/types and individual transfer functions. The computer can then compute the overall system transfer function.



THE OVERALL BLOCK DIAGRAM TRANSFER FUNCTION

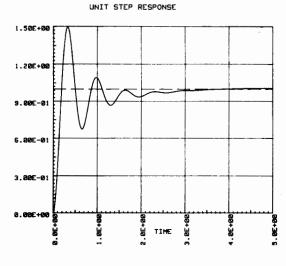
DEGREE	NUMERATOR	DENOMINATOR
8 1 2 3 4	1.2288000E+04 1.2288000E+04 1.2288000E+04	1.2288000E+04 1.4080000E+04 1.3056000E+04 6.4000000E+02 1.2800000E+02

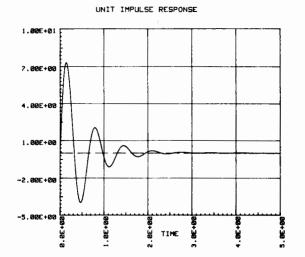
Example of overall transfer function generation from a block diagram.

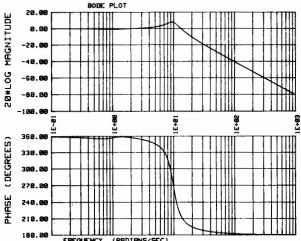
Once the overall transfer function for the system has either been entered or computed, the desktop computer can output analysis plots. The computer can automatically scale these plots and draw axes so no special graph paper is required. On the 9835 these plots must be produced on a peripheral plotter; on the 9845 they are produced on the graphics CRT, the internal thermal printer, or a peripheral plotter. The analysis plots are:

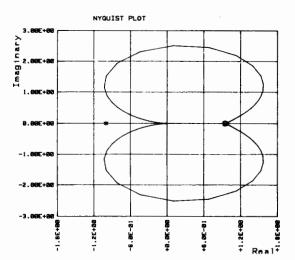
- Root Locus
- Nyquist
- Step Response
- Impulse Response
- Bode (which also calculates gain and phase margins)

The editing module allows modifications to either a transfer function or to the block diagram construction. Once the modifications are complete, a MULTI-PLOT feature allows the new plots to be output over the old so that the effects of the modifications can be compared. This process can be continued until the system meets its design goals.









Sample output plots of the Linear Systems Analysis pack.

### Included in this package are:

- A manual containing operating instruction, theory of operation, and examples.
- A pre-recorded tape cartridge containing the software.
- A special function key template.

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9835A

Series 200

9845B/T/C

Price: **HP Software Part Number:**  \$500

\$500

\$500

09835-15190

98826A

09845-15190

**Memory Options:** 

201

98256A

204

Language/ROMs:

98337A

BASIC 2.0

Opt. 311; 700

Opt. 560/561

Peripherals:

9872

external HPIB printer required

plotter (optional)

9876A (or equivalent) 98034A

Comments:

A 9872 plotter can also be added to the System 45.

### **HEWLETT-PACKARD** SOFTWARE SUMMARY

Application Code:

11.22009

Mainframe(s) Series 200, 9845B/C Program Title

Digital Filter Design

### **Program Description**

The Digital Filter Design pack provides a means to both design and analyze digital filters. In the design section, there are ten different design techniques available for computing filter coefficients. Once the program has determined the filter coefficients, then several frequency response plots are available for analyzing these designs.

### Filter Design Section

This pack can calculate filter coefficients for Finite Impluse Response (FIR) filters, Infinite Impulse Response (IIR) filters, and transform analog filters in H(s) notation to digital filters in H(z) notation. Here are the design options available:

IIR Filter Design Options

- Automated Bilinear-z. (Either Butterworth or Chebyshev.)
- Least Squares.\*

FIR Filter Design Options

- Fourier Series.
- Frequency Sampling.
- Least Squares.\*
- Windowing.
- Minmax. (Passband/Stopband filters, Hilbert transformers, or differentiators can be designed).

H(s) to H(z) Transformation Options

- Bilinear-z.
- Impulse invariance.
- Covariance invariance.\*

### **Analysis Section**

Once filter coefficients have been designed, the following analysis tools are available:

- Magnitude and phase frequency response plots.
- Impulse response plots.
- Analog and digital overplotting. (Useful for comparing H(s) to H(z) transformations).
- Coefficient rounding. To match an actual hardware realization, filter coefficients can be rounded to a specified number of digits.
- All plots can be output to the CRT, internal thermal printer, or optional plotter.

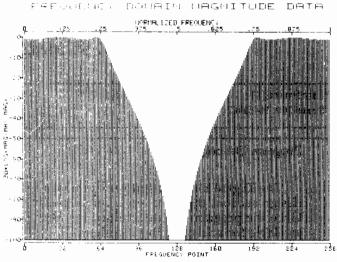
<sup>\*</sup>These are recently developed algorithms that provide optimal designs in many cases.



#### These inputs were entered for an IIR Lowpass filter.

C TO THE POWER		NUMERATOR COEFFICIENT	DENOMINATOR COEFFICIENT
. 0		1.0000000008+00	1.00000000E+00
- 1	1	4.000000000E+00	-7.498048268 <b>E</b> -01
1 -2	İ	6.000000000E+00	1.072527479E+00
-3		4.000000000E+00	-5.598000276E-01
-4	İ	1.000000000E+00	2.337006875E-01
GAIN CONST	ANT:	5.551503140E-02	1

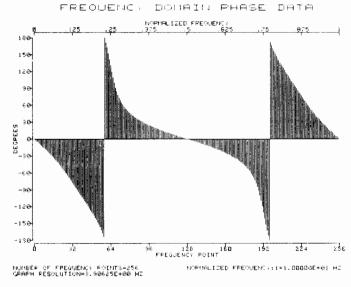
The program calculated these filter coefficients using the Bilinear-z technique. Frequency response plots can now be output with this filter.

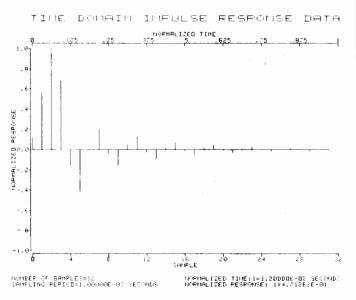


NUMBER OF FREQUENCY FOINTS=3"6 GRAPH RESOLUTION=3,90625E+00 Hz

NORTHALIZED FREQUENCY: 1=1.0000000+00 Hz MA-INUM MAGNITUDE: 0=9.999776-01

### Magnitude Response Plot





Phase Response Plot

Impulse Response Plot

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9845B/C

9816A/9826A/9836A

Price:

\$750

\$500

HP Software Part Number:

09845-12920

98828A – options: 630 3½", 650 5¼" external, 655 5¼" internal

**Memory Options:** 

204

98256A

Language/ROMs:

Opt. 311,

BASIC 2.0

Opt. 700, Opt. 560

Peripherals:

A plotter is

printer (optional)

optional

plotter (optional)

Comments:

## HEWLETT-PACKARD SOFTWARE SUMMARY

Аррисацоп Соде:				
	11.22010			

Mainframe	e(s)
Series	200

Program Title

Waveform Analysis (Series 200)

### **Program Description**

The Waveform Analysis pack contains signal processing software for signal analysis in the time and frequency domains. A user may enter dual channel time domain data from a keyboard, data file, or internal software source. This data may be passed through a user-specified preprocessing filter. Data is then scanned, segmented into records, windowed, fourier analyzed, correlated, and fitted to an autoregressive model. All analysis is performed in an off-line mode. Results such as power spectra, correlation functions, impulse responses, and nodal parameter may be listed or graphed on the internal CRT. They may also be printed or plotted on an HPIB compatible peripheral.

The user answers program prompts to organize data records into overlapping, windowed segments. Maximum design choices for record length, segment size, and FFT size are shown below:

	Record size	Segment size	FFT size
Single Channel	8192	2048	8192
Dual Channel	4096	2048	8192
(per channel)			

By following prompts, the user may carry out the following analyses in an off-line, interactive mode:

- Enter data from keyboard, data file, or internal software source.
- Preprocess the data with a front-end filter.
- Scan data for interesting time domain features (such as nonstationarity).
- Segment data into overlapping records.
- Window data.
- Modulate data.
- Fourier analyze (FFT) data to obtain:

Auto power spectrum Cross power spectrum Auto phase spectrum Cross phase spectrum Cross coherence

Correlate data to obtain:

Autocorrelation function
Cross correlation function

Average spectra and correlation functions across segments.

 Fit an autoregressive model to data and compute model characteristics:

Autoregressive coefficients

Poles and zeros Impulse response

Frequency response

Autocorrelation function

The following is a listing of FFT calculation times:

FFT size	FFT time (sec)
256	10
512	17
1024	30

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9826A or 9836A

Price: \$500

**HP Software Part Number:** 98827A, media opts: 630 3½", 650 5¼" external, 655 5¼" internal

Memory Options: BASIC 2.0 plus 300K of user R/W memory

Language/ROMs:

**Peripherals:** Printer (optional)

Plotter (optional)

Because of a memory limitation, Waveform Analysis will not run on a 9816

connect to the shared resource manager, but will run stand alone with the

**Comments:** appropriate memory.

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

Mainframe(s) 9826/36

Program Title

**HPL FFT Binary Program** 

### **Program Description**

The HPL FFT binary program is structured exactly like the HP 9825 FFT binary program included in the 9825 Waveform Analysis software. The 9826/9836 FFT binary program, however, is 40% to 50% faster than the equivalent 9825 program. The program supplies the following three keywords:

sft: specifies the size of the transform

fft: transforms time domain data to frequency domain data

ift: transforms frequency domain data to time domain data

Both transforms are done in place.

Some example execution times for the 9826/9836 HPL FFT binary program are as follows:

# of Pairs		Time in Seconds		
of P	oints	FFT	IFT	
	4	.04	.04	
	32	.43	.41	
2	56	4.28	4.05	
10	24	19.90	18.97	

	ORDERING HARDWARE INFORMATION
	ORDERING/HARDWARE INFORMATION
Mainframe(s):	9826/36 with HPL Operating System (Opt. 004, 014, 704 or 714).
Price:	\$75
HP Software Part Number:	09836-10050
Memory Options:	Will run on minimum memory configuration.
ROMs:	
Peripherals:	
1 emphorais.	
Comments:	Contact your local HP Sales Office for additional information
	Contact your local till Sales Office for admitted information

## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code: 10031

Application Code: 11.31001 Expiration Date: 10-31-81

PRODUCT NAME

TRANSIENT RESPONSE -

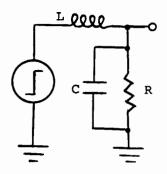
TWO POLE SYSTEM

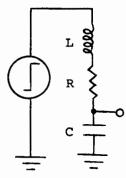
MAINFRAME(S)

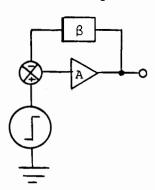
HP-85A

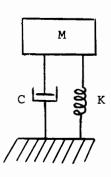
PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Output response to a step input is analysed for four system types:









RESISTOR-INDUCTOR-CAPACITOR

Computed results are:

Damping Factor
Damped Frequency
Damped Period
Time at Maximum Overshoot
Percent Overshoot
Settling Time
10%-90% Risetime

OPERATIONAL MECHANICAL

AMPLIFIER SYSTEM

time →

PLOT EXAMPLE

Automatic scaling of plots is provided.

RETAIL PRICE: \$145.00

COMPANY NAME: A.D. Libin Associates

CONTACTS: Arthur Libin

ADDRESS:

844 Waller St.

San Francisco, CA 94117

TELEPHONE:

(415) 863-1863

SYSTEM REQUIREMEN	ITS			
Computer Model: HP-85	A Pe	eripherals:		
Memory:				
Operating System:				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported				
🛛 U.S. (all regions) 🗆 🗈	atin America (all)			
Support Services Available				
<ul><li>□ phone-in support</li><li>□ on-site consulting</li></ul>		<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>		
Additional Support Information and Pricing:				
CUSTOMER TRAINING/	DOCUMENTATION			
Training Available:		Price:		
Documentation Available: 20 page Manual included Price:				
Documentation Available in	other languages:			
NUMBER OF INSTALLA	TIONS: DATE OF	FIRST INSTALLATION:		
ADDITIONAL INFORMA	TION			
	•			
This software was developed		ration on HP computer systems. The supplier is solely		

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## Software Supplier **Product Summary**

**HP USE ONLY** 

I.D. Code: 10017

Application Code: 11.31003

Expiration Date:

Product Name:

Mainframe(s):

LINEAR SYSTEM ANALYSIS AND FEEDBACK COMPENSATOR DESIGN

HP-85A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This applications Pak for the HP-85 is a menu-oriented, prompt-driven, interactive program for analyzing linear systems and designing feedback compensators. Transfer function blocks may be entered in feedforward and feedback configurations to realize transfer functions for complicated linear systems.

The software computes, lists, and plots the following time domain data:

- (i) impulse response
- (ii) step response

The user may read time delay, rise time, and settling time.

The following frequency domain characteristics are computed, listed, and plotted:

- (i) Bode plots (magnitude and phase)
- (ii) Nyquist plots
- (iii) Root-locus plots

Gain and phase margins are computed and listed.

The Pak is organized for interactive analysis and design. Time and frequency domain plots may be overplotted to observe effects of parameters variations on response characteristics.

Retail Price:

\$250.00

Company Name: PARAMETRICS, INC.

Contacts: Louis L. Scharf

James A. Krack

Address:

Ft. Collins, CO 80521

Telephone:

(303)221 - 3163

1129 W. Oak

SYSTEM REQUIREMENTS				
Computer Model:	HP-85A Peripher 16K Memory Module 82903A Plotter/Printer Rom 00085-15002	als:		
Operating System:	(optional) HPIB Interface 82937A (optional) HP7225A Graphics Plotter: 7225A	-002		
Other Software:	(Optional) nr/225A Graphics Plotter: /225A	-002		
CUSTOMER SUP	PORT	40		
Geographic Area S	upported:			
TYLLE (all regions)	□ Latin America (all) □			
Support Services A				
☑ phone-in suppor	t	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>		
Additional Support	Information and Pricing:			
CUSTOMER TRAI	NING/DOCUMENTATION			
Training Available:	In-plant tutorials on system analysis and digital filtering.	Price:		
Documentation Available: 93 Page mini-text and users' manual		Price:		
i	heory, applications, instructions, examples.  allable in other languages:			
Doddinentation Ave	and the fall good of			
NUMBER OF INS	TALLATIONS: DATE OF FIRST INSTA	LLATION:		
ADDITIONAL INFORMATION  This software is of use to electrical, mechanical civil,				
and chemical engineers engaged in the analysis and design of linear systems and feedback compensators.				
Allow three weeks for delivery.				
RESPONSIBILITIES	STATEMENT			

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## Software Supplier **Product Summary**

HP USE ONLY

I.D. Code: 10034

Application Code: 11.31004

Expiration Date:

Product Name:

Mainframe(s):

SERCAL: A Program to Calculate the Size of Electrical

HP-83/HP-85

Services to Commercial Buildings

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

SERCAL is designed for architects, contractors, engineers, plan checkers, and others involved in the building industry.

It produces forms designed for submittal to building inspection and permitting agencies. These forms contain complete documentation of the building's electrical service requirements, including conductor and conduit size, panel size, and overcurrent device setting. Information is presented in a clear, easy to understand format.

It also produces forms designed to aid designers in considering alternative ways of providing service to a building.

All calculations are traceable to the National Electrical Code. Sizing is done considering commercial availability and trade practice.

Input options include the ability to enter a complete list of electrical equipment, or simply an assumed number of volt-amperes per square foot for preliminary studies.

The program is simple to use. Experience indicates that a new user can learn to use the program in about 30 minutes.

The manual is easy to read and very descriptive. In addition to explaining how to use the program, it includes 11 examples that show how to use the program to do many other electrical caclulations, including sizing feeders and branch circuits.

### Available Now

Retail Price:

\$300.00

Company Name: THRESHOLD SOFTWARE

Contacts: Jerry Liguori

Address: 1832 Tribute Road Suite E

Sacramento, California 95815

Telephone: (916) 920-8189

SYSTEM REQUIR	REMENTS		
Computer Model:	HP-83/HP-85	F	Peripherals:
Memory:	32K Req Printer/Plotter ROM Red	quired	
Operating System:	80 Column HPIB Printe:	r with HP-83, sin	gle or dual 5¼" floppy disk
Other Software:			
CUSTOMER SUP	PORT		
Geographic Area S	supported:		
☐ Worldwide  ☑ U.S. (all regions ☐ East ☐ South ☐ Midwest ☐ West	☐ Latin America (all)	O	
Support Services A	wailable:		
☑ phone-in suppor ☑ on-site consulting	rt ⊠ mail-in su ng □ on-site sy	pport stems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support	Information and Pricing:		
CUSTOMER TRA	INING/DOCUMENTATION		
Training Available:	Available on fee basis	s.	Price:
Documentation Available: 107 page manual with 11 examples. Price: Pictures of the displays are included to guide the user through all features of the program. Documentation Available in other languages:			
NUMBER OF INS	STALLATIONS:	DATE OF FIRST	INSTALLATION:
ADDITIONAL INF	FORMATION		
This software was developed by a consulting electrical engineering firm and is used extensively in their practice. It has been extensively tested. Several people without computer experience have been quickly trained to use it.			
The program is completely error trapped. It includes complete editing and storage capability. A user can keep a tape or disk record of jobs and use the edit routines to modify the data as the design process develops. Last minute changes can be quickly and easily accommodated.			
It is a high quality - high value software product.			
Tape or disk based versions available. (Please specify)			
RESPONSIBILITIES	STATEMENT		

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## Software Supplier Product Summary



HP USE ONLY

I.D. Code: 10050

Application Code:

11.31005

**Expiration Date:** 

Product Name:

NICOLET/85

Mainframe(s):

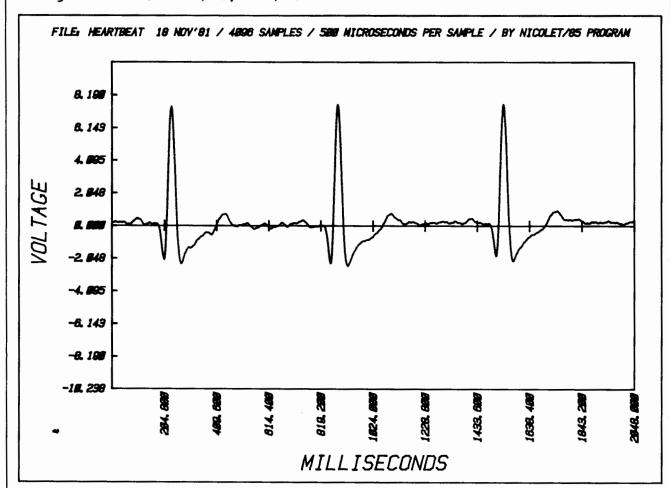
HP-83/85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Purpose:

Transfer waveforms to and from Nicolet 2090 Digital Oscilloscopes & HP-83/85 Computer Systems. Format waveform data for HP'S Waveform Analysis Pac.

Program name: NIC/85, NIC/85DISC



INCLUDED: DATA CART, DISC, & MANUAL.

Retail Price:

\$150.00

Company Name:

TENSEGRITY, INC.

2424 WEST ADDISON ST.

CHICAGO, IL 60618

Telephone:

Address:

(312) 935-9714

Contacts:

John M. Christy

	EMENTS		
Computer Model:	HP-83 or HP-	-85	Peripherals:
Memory:	32K RAM REG	QUIRED	
Operating System:		REQUIRED: I/O RO	M, HP-IB IEEE module, 16K
Other Software:			lotter/Printer ROM. (HP orage Devices optional.)
CUSTOMER SUPP	PORT		
Geographic Area Su	pported:		
<ul><li>☑ Worldwide</li><li>☐ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Mexico ☐ Latin America ☐	(all)	
Support Services Av	vailable:		
	: <b>½</b> 3 g □	mail-in support on-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support	Information and Price	cing:	
	Custom Progr	amming & Consultin	g Service Available
A			
CUSTOMER TRAI	NING/DOCUMENT	TATION	
Training Available:	NING/DOCUMENT	TATION	Price:
		TATION	Price:
Training Available:  Documentation Ava	ilable:		_
Training Available:  Documentation Ava  NICO	ilable:	al available separat	Price:
Training Available:  Documentation Ava  NICO	ilable: LET/85 Manu ilable in other langu	al available separat uages:	Price:
Training Available:  Documentation Ava  NICO  Documentation Ava	ilable: LET/85 Manualilable in other langu	al available separat uages:	Price: tely\$10.00
Training Available:  Documentation Ava  NICO  Documentation Ava  NUMBER OF INS	ilable: LET/85 Manualilable in other language TALLATIONS:	al available separat uages: DATE OF FIF	Price: tely\$10.00  RST INSTALLATION: 17 Nov'81
Training Available:  Documentation Ava  NICO  Documentation Ava  NUMBER OF INS	ilable: LET/85 Manualilable in other language TALLATIONS:	al available separat uages:	Price: tely\$10.00  RST INSTALLATION: 17 Nov'81

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HP USE ONLY

I.D. Code:

Application Code: Expiration Date:

11.32001

**Product Name:** 

AC Circuit Analysis Application Pac

Mainframe(s): Series 80

### Software Description:

The Circuit Analysis software package allows the user to model a circuit and to examine its AC performance quickly, easily, and accurately. By simulating the design on a Series 80 computer, design problems can be recognized early in the development process, before large investments have been made.

With the computer's interactive mode of operation, optimal solutions can be easily designed. To evaluate alternative designs, the user simply inputs new values for variables and reruns the simulation until the most desirable response is achieved.

Key features of the pac are:

- Up to 9 nodes and 12 components can be analyzed. That capacity can be increased to as many as 16 nodes and 40 components by adding the optional 16K byte memory module.
- Components allowed are resistors, capacitors, inductors, voltage-controller sources and independent current sources.
- Analysis can be either log or linear sweep, or single frequency points.

The following parameters can be calculated:

Node voltage (magnitude and phase); Branch voltage (magnitude and phase); Branch current (magnitude and phase); Branch power (complex); and Ratio of any two of the preceding (in decibels if desired).

Families of curves may be plotted on the same axis.

NOTE: HP-86/87 software offers increased data (node) capacity, larger display graphics, 80-column report layouts and keyboard option of display/plotter graphics. Up to 59 nodes 119 branches using 160K memory.

SYSTEM REQUIREMENTS	
Mainframe: HP-83/85/86/87	
ROMs:	
Mamaru 829024 Mamanu Madula Ontional	
Memory: 82903A Memory Module Optional Additional Memory for HP-86/87 Optional	
Peripherals:	
ADDITIONAL INFORMATION	

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HP USE ONLY

I.D. Code:

Application Code: 11.32002

Expiration Date:

Product Name:

Waveform Analysis Application Pac

Mainframe(s):

Series 80

### Software Description:

Waveform analysis has become increasingly important in acoustics, bioengineering, vibration analysis and image processing. Functions within the Waveform Analysis Application Pac include:

Hanning Function; Power Spectrum; Auto Correlation; Cross Correlation; Cross Power; Convolution; Change Domain; Modulation; F(s) Equal; and F(s) Unequal.

Data input and output functions are also included.

Data Input: With this operation, single functions can be input. The structure of the pac and the HP-83/85 computer allow the user to analyze up to 512 data points. Up to 16,384 data points can be analyzed on the HP-86/87 computer using 160K memory.

Double Data Input: Information on two separate functions can be entered into the system using double data input, with each function characterized by up to 256 data points on the computer or 1,024 data points using 32K memory.

Print: The print function directs the system to output data to the specified printer.

Plot: Using the plot function, the user can direct the system to output data to the graphics section of the CRT. The plots are fully annotated.

Edit: The edit function allows the user to alter time and frequency domain data and to store it on a tape cartridge or disc.

NOTE: HP-86/87 software offers increased data capacity larger, display graphics and 80-column report layouts. Up to 16,384 data points using 160K memory.

00085-13035

SYSTEM REQUIREMENTS
Mainframe: HP-83/85/86/87
ROMs:
Memory: 82903A 16K Memory Module Optional Additional Memory for HP-86/87 Optional
Peripherals:
•
ADDITIONAL INFORMATION
•

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HP USE ONLY

I.D. Code:

Application Code: 11.32003

Expiration Date:

Product Name:

Electronics Engineering Pac

Mainframe(s):

Series 80

Software Description:

The Electronics Engineering Pac is a "Multi Pac" software package containing the AC Circuit Analysis Pac (00085-13006), the Waveform Analysis Pac (00085-13035), and the Math Pac (00085-13005). This "Multi Pac" offers the user powerful analytical software at a lower price than the user would pay for the three pacs individually.

00085-13059 Retail Price: \$225.00 Hewlett-Packard product number \_

SYSTEM REQUIREMENTS
Mainframe: HP-83/85/86/87
ROMs:
Memory: 82903A Memory Module Optional Additional Memory for HP-86/87 Optional
Peripherals:
ADDITIONAL INFORMATION

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## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

11.42001

Mainframe(s) HP 9000 Models 20,30&40 Program Title

**HPSPICE** Circuit Simulation Program

### **Program Description**

HPSPICE is a general purpose, circuit simulation program which is very useful in the analysis and verification of electronic circuits. It is based on the SPICE2 program (version 2G.5) developed at the University of California at Berkeley. An interctive user interface with graphical output (defined by Hewlett-Packard) has been added to improve engineering productivity in the design and testing of analog circuits as well as analog and digital integrated circuits.

### **Features**

- General purpose circuit simulation based on well-known, public-domain software.
- Active device models with parameters.
- Multiple analysis types.
- Large circuit capacity.
- Interactive, easy-to-use interface.
- High quality, graphical output.
- Multiple user environment.
- Interactive or batch mode operation.
- Major vendor support.

### **Circuit Elements**

Circuits analyzed with HPSPICE may contain one or more of the following elements:

- Resistors
- Capacitors
- Inductors
- Mutual Inductors
- Voltage/Current Controlled Sources
- Transmission Lines
- Diodes
- Bipolar Junction Transistors (BJT)
- Junction Field Effect Transistors (JFET)
- MOS Field Effect Transistors (MOSFET)

### **Types of Analysis**

The HPSPICE Program can perform the following types of analyses:

- Non-linear DC analysis with the ability to generate transfer characteristics.
- Linear AC small-signal analysis with noise and distortion simulation.
- Non-linear transient analysis with Fourier analysis options.

All these analyses can be conducted at different temperatures as specified by the user.



### User commands

The user interacts with HPSPICE by using the following commands:

Command	Purpose
Circuit	specify the present circuit
Create	create a circuit file
Dequeue	remove a simulation from the queue
Edit	edit the circuit file
Graph	plot the simulation results
Help	display the table of commands
List	display the circuit file
Nodes	list the circuit nodes available for graphing
Purge	purge the circuit's files
Queue	add a simulation to the queue
Quit	exit from HPSPICE
Report	report the tabular results of a simulation
Set	set various graphics attributes
Show	list the graphics attributes
Simulate	schedule a simulation
Status	display HPSPICE status
Syntax	schedule a syntax check of the present circuit
/ or Toggle	toggle between alphanumeric and graphics displays

### **Graphics Output**

The output from an HPSPICE simulation is generated using the GRAPHICS/9000 software and it has the following characteristics:

- All graphs are labeled with a title, a timestamp and the temperature at which the analysis was
  done.
- Axes are labeled in engineering units (millivolts, nanoseconds, etc.).
- All graphics are automatically and uniformly scaled for any output device.
- All curves on one graph either appear as different line types on softcopy devices, or as different colors on multi-color hardcopy devices.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Models 20, 30 and 40

Price: \$15,000 ("A" product, multi-user), \$10,000 ("R & M" product, multi-user)

\$5000 ("A" product, single-user), \$3500 ("R &M" product, single-user)

HP Software Part Number: 98183A/R/M (multi-user)

98163A/R/M (single-user)

Memory Requirements: Minimum 1 Mbyte memory required for 1 user,

additional user requires 32 Kbytes.

**Peripherals:** Display devices: 2623A, 2627A, 7470A 7580A, 7585A 9872C/T

and HP 9000 Model 20 CRT

Comments: GRAPHICS/9000 (DGL) required. Supported only on the HP-UX Operating System.



### REFERENCED SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.11001 Expiration Date: 9/1/82

PRODUCT NAME

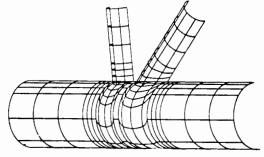
MAINFRAME(S)

NISA Numerically Integrated Systems Analysis

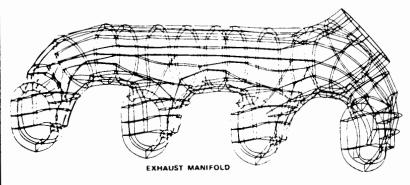
**HP 1000** F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

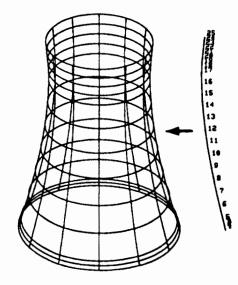
NISA is a general purpose FINITE ELEMENT PROGRAM for analyzing actual problems encountered in civil, mechanical and offshore engineering environments and in the automotive and aerospace, manufacturing, nuclear and petroleum industries. Analysis capabilities include very diverse and exhaustive features in Static, Dynamic, Steady State and Transient Heat Transfer and Field problems. Element types available include isoparametric linear and parabolic for plane stress, plane strain, axisymmetric (with symmetric or unsymmetric loading), general shells, laminated composite or sandwich shells, thick shells, solids, beams, spars, springs, mass elements, and rigid elements. The extensive library of elements and post-processing capabilities (displacement and stress contours, mode shapes, etc.) in NISA allows one to solve a wide variety of structures.



NISA - FINITE ELEMENT MODEL JOINT ANALYSIS OF OFFSHORE PLATFORM PIPES



16 NODE PARABOLIC THICK SHELL OF NISA USED FOR STATIC AND HEAT TRANSFER ANALYSIS



### COOLING TOWER

Buckling analysis of cooling tower using 8-node curved supershell elements. The model is automatically generated by the finite element interactive graphics program DISPLAY/DIGIT of EMRC. The model is generated as shown above by converting one dimentional curved line element into 3D curved elements by rotating the grid about an axis through space.

RETAIL PRICE:

\$15,000 to \$35,000 purchase price, \$1000 to \$1750 per month lease price.

Above price range depends upon the options required.

COMPANY NAME:

Engineering Mechanics Research Corp.

CONTACTS: Dr. Kant S. Kothawala

P.O. Box 696

ADDRESS:

Troy, Michigan 48099

TELEPHONE:

(313) 968-1606

### SYSTEM REQUIREMENTS Computer Model: HP 1000 Model 45 Peripherals: HP 7906 or larger disc. HP graphics CRT, plotters, Memory: 256 kb minimum printers and digitizers enhance system's capabilities. Operating System: RTE-IVB Other Software: FORTRAN 4X (optional, enhances system performance) CUSTOMER SUPPORT Geographic Area Supported: ₩orldwide □ Canada ☐ Europe (all) ☐ Far East (all) □ U.S. (all regions) ☐ Mexico □ East ☐ Latin America (all) □ South ☐ Midwest □ West ☐ South Africa ☐ Australia/N.Z. Support Services Available: D phone-in support mail-in support ☐ remote dial-in Son-site consulting ■ program modification Additional Support Information and Pricing: Contact EMRC for more information on support services and prices. CUSTOMER TRAINING/DOCUMENTATION Training Available: User training can be given at client or \$500.00/day Price: EMRC facility. (plus travel & lodging for on-site training) Documentation Available. NISA Users Manual Price: NISA Demo Manual Documentation Available in other languages: DATE OF FIRST INSTALLATION: NUMBER OF INSTALLATIONS: 30 ADDITIONAL INFORMATION EMRC also offers consultancy on the engineering application on client's design or analysis problems. This service is flexible — from total responsibility for a project or part of it to meet the client's specific requirements. The finite element interactive graphics program DISPLAY/DIGIT is also available for HP 1000 Model 45 users. DISPLAY/DIGIT is an interactive graphics program used to create finite element models from drawings, to generate meshes automatically and to modify errors by viewing element and node point data, and to interface to NISA, NASTRAN, ANSYS, SAP and other codes. Purchase of the \$35,000 NISA package includes the DISPLAY/DIGIT program. RESPONSIBILITIES STATEMENT This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims

any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.



### REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

12.11002 Application Code: 9/1/82 **Expiration Date:** 

PRODUCT NAME

### **DISPLAY/DIGIT** Finite Element Graphics

MAINFRAME(S) HP 1000 F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

DISPLAY/DIGIT is an interactive graphics program with capabilities to generate, verify, and modify finite element data for a wide range of FEM programs. Element in one, two, or three dimensions having up to 32 nodes each may be generated by digitizing engineering drawings, or by automatic generation from a user-input base set of nodes and elements.

DISPLAY/DIGIT may also be used to interactively view exisiting finite element models in NISA or NASTRAN format, and interfaces for other programs can be provided. DISPLAY/DIGIT reads the bulk data and prompts the user for viewing angles, portion of the model to be shown, and labels. Options are available to search for missing elements, check for distorted elements, and minimize the wavefront or bandwidth of the model.

DISPLAY/DIGIT can also be used to change the model if it is found to contain errors, or if the finite element mesh needs to be changed to reflect structural redesigns. Changes can be made to nodal coordinate locations using the graphics cursor, and a comple editing subsystem is also available to delete, change, or add elements, nodes, and material properties.

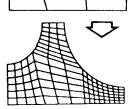
Special generation features are available to:

- Convert a constant or variable thickness plate or shell model into 3D solid elements.
- Automatically generate a 2D or 3D mesh of arbitrary density within user-specified superelements.
- Convert a 2D planar model into 3D solid elements by rotating the grid about an axis or translating it through
- Automatically generate midside nodes, converting linear elements to higher order.
- Generate the complete finite element model for symmetric structures by reflecting a smaller model about arbitrary planes.

Just enough nodes digitized from engineering drawing to represent the structure by four elements

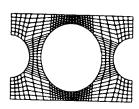


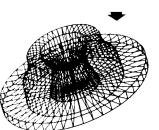
Shells are converted into solids of desired thicknesses



Desired mesh generated automatically

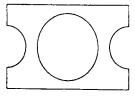
Assuming the model to be rotationally symmetric, four 8-noded elements are transformed into thirty two 20-node solid elements by rotating the 2-D model about its axis

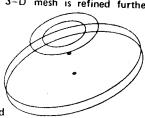




Symmetric mesh is generated

3-D mesh is refined further





Boundary of the model displayed

RETAIL PRICE:

\$10,000 to \$15,00 purchase price, \$700 to \$1000 per month lease price. Above price range depends on the options required.

COMPANY NAME:

Engineering Mechanics Research Corp.

CONTACTS: Dr. Kant S. Kothawala

P. O. Box 696

ADDRESS:

Troy, Michigan 48099

**TELEPHONE:** 

(313) 968-1606

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Model 45	Peripherals:	HP graphics	CRT, er enhances
Memory: 256 kb minimum		system's cap	
Operating System: RTE-IVB			
Other Software:			
			·····
CUSTOMER SUPPORT			
Geographic Area Supported:			
	pe (all)		East (all)
☐ East ☐ Latin America (all) ☐			
□ South □ □ □			
□ West □ □ Sou	th Africa	□ Aust	ralia/N.Z.
Support Services Available			
☐ phone-in support ☐ mail-in support ☐ on-site consulting ☐ on-site systems end	nineers		ote dial-in gram modification
	gineers	<b>™</b> bio∂	gram modification
Additional Support Information and Pricing:  Contact EMRC for more information on support set	vices and pricin	ıσ	
Contact Emite for more mornation on support ser	vices and pricin	·5·	
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: User training can be given at client of EMRC facility.	r	Price:	\$500.00/day (plus travel & lodging
Documentation Available: DISPLAY/DIGIT User's Manu	ıal	Price:	for on-site training)
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 30 DATE	TE OF FIRST IN	ISTALLATION	1:
ADDITIONAL INFORMATION			
EMRC also offers consultancy on the engineering application on client's design or analysis problems. This service is flexible — from total responsibility for a project or part of it to meet the client's specific requirements.			
The finite element interactive graphics program DISPLAY/DIGIT is available for HP 1000 Model 45 users. DISPLAY/DIGIT is an interactive graphics program used to create finite element models from drawings, to generate meshes automatically and to modify errors by viewing element and node point data and to interface to NISA, NASTRAN, ANSYS, SAP, and other codes.			
RESPONSIBILITIES STATEMENT			

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**HP USE ONLY** 

I.D. Code:

Application Code: 12.11003

Expiration Date:

Mainframe(s):

Product Name:

TM

STRUCTURAL DYNAMICS MODIFICATION (SDM)

HP 1000 Computers

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The STRUCTURAL DYNAMICS MODIFICATION (SDM) SYSTEM is a unique software package which uses modal data, and allows the user to investigate the effects of potential design modifications upon the dynamics of test structures. SDM offers a major contribution to laboratories engaged in troubleshooting noise, vibration, and failure problems. Users can quickly investigate alternative hardware solutions to structural vibration problems by asking so called "what if" questions. For example, "what if" a stiffener is added between points A and B? How would the modified structure behave dynamically?

With SDM, the mass, stiffness, or damping properties of a structure can be altered by computer analysis, and the resultant dynamic (modal) properties of the structure determined. Alternatively, changes in the modal properties can be specified, and the required changes in mass, stiffness, or damping determined. Using the SDM system, any number of changes can be studied analytically, thus allowing engineers to evaluate many alternate solutions to a problem before committing to actual hardware modifications.

SDM can also be used to analytically couple together and determine the overall dynamics of two or more substructures. This makes it much easier to measure or model the dynamics of large complex structures which can be conveniently subdivided into an assemblage of substructures.

Lastly, SDM allows the user to conveniently study the effects of adding tuned mass-spring-damper vibration absorbers to a structure. For all of the above, SDM only requires the modal parameters of the unmodified structure as input data, and can accept data either from experimental testing, or from analytical models.

SDM runs on several different models of HP Desktop or Mini-computers. For experimental troubleshooting applications, the computer is interfaced to an HP 5423A Structural Dynamics Analyzer via the HP-IB. The 5423A measures the modal properties of the structure.

Retail Price: \$19,000 (USA domestic price only)

Company Name: STRUCTURAL MEASUREMENT SYSTEMS

Contacts: Ken-Ramsey

645 River Oaks Parkway

Marketing and Sales

Address:

San Jose, CA 95134

Dave Formenti

Telephone:

(408) 263-2200

Applications Manager

SYSTEM REQUIRE	MENTS	•		
Computer Model:	HP 1000E or F Series		-	IP 7900, 7906, 7920, or 7925
Memory: 128K by	te Minimum			
Operating System:	RTE IVB			
Other Software:				
CUSTOMER SUPP	ORT			A STRUCTURE TO A SERVICE STATE OF THE SERVICE STATE STATE OF THE SERVICE STATE OF THE SERVICE STATE OF THE SERVICE STATE OF THE SERVICE
Geographic Area Su	pported:			
XI U.S. (all regions)	Latin America (all)		8 5 0	ar East (all)  Japan Taiwan  ustralia/N.Z.
Support Services Av	ailable:			
phone-in support     on-site consulting	⊠ mail-in sup □ on-site sys	port tems engineers		emote dial-in program modification
products. A	nformation and Pricing: SMS After warranty expirati Agreement", which exte	on, SMS offers	an "Extende	ed System
CUSTOMER TRAIN	IING/DOCUMENTATION			
	Yes, at SMS, San Jose, customer's site.	CA, or at	Pric	e: Contact factory
Documentation Avai	lable: Installation & Op available in Engl		Pric	e: 1 copy included, additional copies are \$100 each.
Documentation Avai	lable in other languages:			are 9100 each.
NUMBER OF INST	ALLATIONS: 30	DATE OF FIRST	INSTALLATIO	<b>ON</b> : Feb, 1980
<pre>vibration da dynamic prop monitoring, measurement</pre>	applications software ata for the purposes of perties, detecting strue and for quality assura and monitoring systems (Fourier Analysis) inst	identifying ar actural damage a ance testing of utilize state-	nd analyzing and failure new product of-the-art	g structural via vibration ts. SMS-designed digital signal

#### RESPONSIBILITIES STATEMENT

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# REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21001

Expiration Date:

PRODUCT NAME

# fesdec

MAINFRAME(S)

9835, 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.) FESDEC (Finite Element System for Desktop Computers) is a general purpose finite element system written especially for desktop computers. The program combines the powerful finite element method with the interactive graphics and the user convenience of the desktop machine, to provide an efficient and easy to use analysis facility.

The program incorporates a full range of elements covering all classes of 2 and 3 dimensional problems and offers many of the facilities available in mainframe finite element systems.

- Linear Elastic Static Analysis
  - Interactive model entry with editing and 2-D mesh generation
  - . Bandwidth optimisation
  - . Graphic model display with zoom feature
  - Spring, truss, beam, 2D and 3D plate, shell, axisymmetric and solid elements
  - . Multiple load cases
  - Concentrated and distributed loads, centrifugal and body . Linear Heat Conduction force loads
  - Temperature loads
  - Load combinations
  - Single and multipoint constraints
  - Graphical display of results

- . Linear Dynamic Modal Analysis
  - Automatic lumped mass and or added mass
  - Modes and frequencies extracted by sub-space iteration
  - . Seismic spectra response
  - . Harmonic response and transfer function plots
  - . Calculation of modal damping
  - - Transient and steadystate heat conduction with temperature and time dependent material properties.

Brochure available on request.

RETAIL PRICE: \$7500 (U.S.)

COMPANY NAME: H.G. Engineering Ltd.

CONTACTS: Dr. A. Firmin

Mr. I. Tabsh

ADDRESS:

260 Lesmill Rd., Don Mills, Ontario M3B 2T5

TELEPHONE:

(416) 447-5535 (U.S. office (617) 667-8888)

SYSTEM REQUIR	EMENTS			
Computer Model:	9835, 9845	Peripherals: 988	35M, 9895, 7225A	
Memory:	64k bytes			
Operating System:				
Other Software: Ma	ss Storage, Graphics,	I/O ROM's (Asser	mbler ROM optional)	
CUSTOMER SUP	PORT		-	
Geographic Area Sup	pported:			
☐ Worldwide  ☑ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	Mexico  Latin America (all)	Europe (all)  South Africa	□ Far East (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Av.   phone-in support			□ remote dial-in	
☑ on-site consulting		engineers	☑ program modification	
Additional Support In	nformation and Pricing:			
CUSTOMER TRAIL	NING/DOCUMENTATION			
Training Available:	Yes		Price: \$350 per day (excl. expenses)	
Documentation Availa	able: Yes. FESDEC user	manual	Price: \$35 (excl. postage)	
Documentation Available in other languages: No				
NUMBER OF INSTALLATIONS: 8 (N.A.) DATE OF FIRST INSTALLATION: August 1980				
ADDITIONAL INFO	DRMATION			
Tamworth, St	side of North America patents B78 2ER, England in preparation.		S. Ltd., Piccadilly	
RESPONSIBILITIES	STATEMENT			
This software was d	leveloped by an independent software sup	plier for operation on HP com-	outer systems. The supplier is solely	

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## **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21002 **Expiration Date:** 

PRODUCT NAME

# ГНЕТА



MAINFRAME(S)

9845B/C

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

THETA 1 is a thermal network analysis having an in-core solution, written in Hewlett-Packard extended basic and implemented on the No peripheral devices are required, although one or two floppy disc mass storage devices are desirable.

Both steady state and transient sequence solutions may be obtained by an iterative solution technique in which all material properties may have non-linear temperature dependence, independent of each other. Material properties are accessed from permanent archives which may be progressively extended. Transient solutions are governed by a flexible system of transient sequence control instructions, which allow repetitive cycles to be specified as sub sequences in the main sequence. Transients may be initiated either with a steady state solution or a user specified temperature distribution and may be terminated at a transient point or on a steady state.

The modeling facilities allow structure and background nodes to be connected by radiation, convection and conduction links, the latter including non-homogenous/interface effects. Nodal temperatures may be either constrained at particular values, within certain bounds, or used to trigger temperature dependent heat sources/sinks.

In association with the above, VUFAC is available for the calculation of thermal radiation viewfactors (see separate sheet).

A more detailed description of the program is available upon request.

RETAIL PRICE: \$7500

COMPANY NAME: H.G. Engineering Ltd.

Dr. A. Firmin CONTACTS:

ADDRESS:

260 Lesmill Road, Don Mills, Ontario M3B 2T5

TELEPHONE:

(416) 447-5535 (U.S. office (617) 667-8888)

SYSTEM REQUIRE	MENTS		
Computer Model:	9845B/C	Peripherals:	
Memory:	187k		
Operating System:			
Other Software:			
CUSTOMER SUPP	ORT		
Geographic Area Supp	ported:		
□ Worldwide  12 U.S. (all regions) □ East □ South □ Midwest □ West		□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Ava	ılable		
	mail-in sup     □ on-site sys	port Items engineers	□ remote dial-in <b>x</b> program modification
Additional Support Inf	formation and Pricing:		
CUSTOMER TRAIN	IING/DOCUMENTATION	W-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
Training Available	Yes		Price: \$350/day (+ expenses)
Documentation Availal	ble Yes		Price: \$10 (excl. postage)
Documentation Availat	ble in other languages: No		
NUMBER OF INSTA	ALLATIONS: 1	DATE OF FIRST INSTA	LLATION: August 1980
ADDITIONAL INFO	RMATION		
DECOMPOSITION OF	TATEMENT.		
This software was de		re supplier for operation on HP cor	nputer systems. The supplier is solely

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HP USE ONLY

I.D. Code:

Application Code: 12.21003

Expiration Date:

Product Name:

TM

Mainframe(s):

STRUCTURAL DYNAMICS MODIFICATION (SDM) HP 9826A / HP 5423A HP 9836A / HP 5423A

HP 9845B/C/HP 5423A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The STRUCTURAL DYNAMICS MODIFICATION (SDM) SYSTEM is a unique new software package which uses modal data and allows the user to investigate the effects of potential design modifications upon the dynamics of test structures. SDM offers a major contribution to laboratories engaged in troubleshooting noise, vibration, and failure problems. Users can quickly investigate alternative hardware solutions to structural vibration problems by asking so called "what if" questions. For example, "what if" a stiffener is added between points A and B? How would the modified structure behave dynamically?

With SDM, the mass, stiffness, or damping properties of a structure can be altered by computer analysis, and the resultant dynamic (modal) properties of the structure determined. Alternatively, changes in the modal properties can be specified, and the required changes in mass, stiffness, or damping determined. Using the SDM system, any number of changes can be studied analytically, thus allowing engineers to evaluate many alternate solutions to a problem before committing to actual hardware modifications.

SDM can also be used to analytically couple together and determine the overall dynamics of two or more substructures. This makes it much easier to measure or model the dynamics of large complex structures which can be conveniently subdivided into an assemblage of substructures.

Lastly, SDM allows the user to conveniently study the effects of adding tuned mass-spring-damper vibration absorbers to a structure. For all of the above, SDM only requires the modal parameters of the unmodified structure as input data, and can accept data either from experimental testing, or from analytical models.

SDM runs on several different models of HP Desktop or Mini-computers. For experimental troubleshooting applications, the computer is interfaced to an HP 5423A Structural Dynamics Analyzer via the HP-IB. The 5423A measures the modal properties of the structure.

Retail Price: \$12,500 (USA domestic price only)

Company Name: STRUCTURAL MEASUREMENT SYSTEMS

Contacts: Ken Ramsey

Marketing and Sales

Address:

645 River Oaks Parkway

San Jose, CA 95134

Dave Formenti

Telephone:

(408) 263-2200

Applications Manager

#### SYSTEM REQUIREMENTS ALL ARE OPTIONAL 9826A Opt. 011 or 711 Computer Model: Peripherals: 9895 Flexible Disc 9836A Opt. Oll or 711 9845B Opt. 150,190,250,270, or 290 9845C Opt. 150,190,250,270, or 290 9134 Winchester Memory: 9135 Winchester/ Floppy Operating System: Other Software: **CUSTOMER SUPPORT** Geographic Area Supported: ☑ Europe (all) ☐ Far East (all) ☐ M Japan ☐ Taiwan ☐ ☐ ☐ ☐ South Africa ☐ Australia/N.Z. Support Services Available: □ phone-in support □ on-site consulting □ on-site systems engineers remote dial-in program modification Additional Support Information and Pricing: SMS provides a 9 month warranty with standard products. After warranty expiration, SMS offers an "Extended System Maintenance Agreement", which extends the warranty in yearly increments. CUSTOMER TRAINING/DOCUMENTATION Training Available: Yes, at SMS, San Jose, CA, or Price: Contact factory at customer's site. Documentation Available: Installation & Operating Manual Price: 1 copy included, available in English language. Additional copies are \$100 each. Documentation Available in other languages: NUMBER OF INSTALLATIONS: 40 DATE OF FIRST INSTALLATION: June, 1980 ADDITIONAL INFORMATION SMS markets applications software packages which measure and process mechanical vibration data for the purposes of identifying and analyzing structural dynamic properties, detecting structural damage and failure via vibration monitoring, and for quality assurance testing of new products. SMS-designed measurement and monitoring systems utilize state-of-the-art digital signal processing (Fourier Analysis) instrumentation, together with the latest in computer technology.

#### RESPONSIBILITIES STATEMENT

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## REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Modal Parameter Management

• Deflection shapes from operating data

reference frequencies

Mode shape plotting

Modal damping calculations

• CRT-cursor identification of

• Five modes using 50 points in

three directions per file

• Real (coincident) or imaginary (quadrature) coefficients

Application Code: 12.21004

Expiration Date:

PRODUCT NAME

MAINFRAME(S)

MADAM (Modal Analysis and Data Management)

9825, 9826, 9835, 9845,

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The MADAM program was originally developed to overcome the lack of long-term storage on small two-channel spectrum analyzers. The program has been expanded, however, to include small-scale modal analysis. Following are features of the program.

Data Management

<del>C</del>assette function storage (220 spectra) • Cassette function

- Recall functions with annotation to CRT
- Data tagged with ASCII header
- Engineering unit calibration
- Reference transducer locations
- Plotting to digital plotter

Data Plotting

Shapes Variable view angle Variable deflection amplitude Variable size Deformed and/or undeformed Static display, no animation

Unlimited number of coordinates per plot

Functions

X or Y axis Linear or log Data only plotting option Axes only plotting option

Artificial integration/differentiation

No plotter calibration necessary with digital plotter

Complete documentation is provided with the program along with a brief technical description of the curve-fitting algorithm and applications for the real versus imaginary mode coefficient extraction technique.

RETAIL PRICE:

\$5,000 to \$7,500 (License)

COMPANY NAME: Anatrol Corporation

CONTACTS: Tony L. Shipley

R. Gene Smiley

ADDRESS:

Suite 227

(513) 984-5800

11305 Reed Hartman Highway

TELEPHONE: Cincinnati, OH 45241

TELEX: 241 481

SYSTEM REQUIREMENTS				
Computer Model: 9825, 9826, 9835, 9845, 85 Peripherals: 7				
	(HP 3582A) Digital plotter			
Operating System: N.A.				
Other Software: None				
CUSTOMER SUPPORT				
Geographic Area Supported				
□ Worldwide ☑ Canada ☑ Europe (all)   ☑ U.S. (all regions) ☑ Mexico □   □ East □ Latin America (all) □   □ South □ □   □ Midwest □ □   □ West □ □   □ South Africa				
Support Services Available.	~			
	□ remote dial-in ☑ program modification (quoted on request)			
Additional Support Information and Pricing: In Japan, contact M. Kawakami or Toshio Nemoto (Toyoda Tsusho Kaisha, Phone 052 584-5222)	(4			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available On-Site Consulting; Seminars Price: Time & Materia Basis				
Documentation Available User/Technical Manual	Price:			
Documentation Available in other languages: English Only				
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: April, 1979				
ADDITIONAL INFORMATION Sample Data Plot.  Mode Shope at 729 Mz				
RESPONSIBILITIES STATEMENT				

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## REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21005

Expiration Date:



MAINFRAME(S)

9825, 9826, 9835, 9845,

PRODUCT NAME

AIMS (Acoustic Intensity Measurement System)

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The AIMS program was developed to overcome the costly and time-consuming problem of identifying and ranking various noise radiating components of a complex mechanical system.

The acoustic intensity technique is based on the measurement of sound pressure at two closely spaced points in the sound field. Finite sum and difference approximations for sound pressure and particle velocity lead to an approximation of acoustic intensity based on the cross-spectrum between the two sound pressure measurements. In practice, the procedure for making acoustic intensity measurements is to scan defined areas around the various sound sources while the cross-spectrum averaging operation is being performed by a digital Fourier analyzer. Average acoustic intensity values are obtained for the defined areas, and sound power calculations are performed by integrating the average intensity values over the associated arcas.

The AIMS software provides a complete environment for performing acoustic modeling of arbitrary noise sources. Up to 25 models, consisting of 100 elemental sound sources per model, can be assembled on one data tape. data output includes intensity, presssure and sound power spectra and overall levels. Frequency weighting functions (e.g., A-weighting) can be applied to the data. Spectral information is automatically displayed on the CRT of the spectrum analyzer or plotted with a digital plotter. In addition the surface pattern of intensity or sound power can be plotted as either a contour plot, raster plot, or a three-dimensional intensity map. (See plots below.)

The AIMS software has been tested in many acoustic environments and on many types of noise sources. Typical applications where AIMS can be an effective noise source identification tool include internal combustion engines, electrical transformers, gearboxes, transmissions, appliances, piping systems, aircraft interiors, pumps, compressors and fans. Quality control of noise emissions in production environments is another possible application of this technique.

RETAIL PRICE:

\$7,000 to \$12,000 (License)

COMPANY NAME: Anatrol Corporation

CONTACTS: Tony L. Shipley

R. Gene Smiley

ADDRESS: Suite 227

11305 Reed Hartman Highway

TELEPHONE: Cincinnati, OH 45241

(513) 984-5800

TELEX: 241 481

SYSTEM REQUIREMENTS ·		•		
Computer Model: 9825, 9826, 9835, 9845, 8	Peripherals:			
Memory: 64K minimum (24K min. w/9825, 3	32K min. w/85)	(may be 5420A, 5423A, or 3582A Digital plotter		
Operating System: NA				
Other Software: None				
CUSTOMER SUPPORT				
Geographic Area Supported:				
■ U.S. (all regions)	Europe (all)  Comparison of the comparison of th			
Support Services Available:				
□ phone-in support □ mail-in suppo □ on-site consulting □ on-site system		□ remote dial-in 図 program modification (quoted on request)		
Additional Support Information and Pricing:  In Japan, contact M. Kawakami or To (Toyoda Tsusho Kaisha, Phone 052 S				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-Site Consulting; Sem	inars	Price: Time & Materials Basis		
Documentation Available: User/Technical Manua	Price:			
Documentation Available in other languages: Englis	sh Only			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: May, 1980				
ADDITIONAL INFORMATION Sample Data F	Plots.			
	38 39 30 30 30 30 30 30 30 30 30 30 30 30 30			
SPENED ARRIY	A.	COEMER ARRAY		

#### RESPONSIBILITIES STATEMENT

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# REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21006

Expiration Date:

PRODUCT NAME

SMAP (Spectrum Mapping System)

MAINFRAME(S)

9825, 9826, 9835, 9845,

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The SMAP program was developed to show the variation of measured or analytical functions (time, frequency, or other domain) as a function of some other parameter, such as operating speed, temperature, pressure, flow, voltage, valve position, etc. on a single three-dimensional plot.

In the analytical version, a program loop is provided for a user-defined single-valved function, Y, to be calculated and varied with the X and Z axis values. In the measurement version, two channels are normally used--one to provide the data from which the spectrum of vibration amplitude versus frequency is computed by a Fourier analyzer and the other to provide the approximate operating third axis parameter. The analysis system samples and calculates the frequency spectrum from one channel and tags the spectrum with the operating parameter from the second channel. This process is repeated until the memory unit is filled. The data base is then dumped to a mass storage device for later decoding. The data memory is erased, and the process continues until the entire operating range of the machine has been covered.

Once the data generation is complete, the plotting phase is initiated during which the data base is sorted and repetitive samples of data for the same third axis value are averaged. The results are then plotted on a three-dimensional contour plot, including hidden line feature for clarity.

For rotating equipment analyses, shaft orbits, magnitude and phase order tracking, runout correction, and other features are provided to facilitate machinery diagnostic testing.

The various system functions are used via key strokes on the special function keys. The prompting in the program provides for very efficient interaction between operator and the data acquisition system for ease of

Complete documentation is provided including technical description of the technique and sample applications.

RETAIL PRICE:

\$5,000 to \$7,000 (License)

COMPANY NAME: Anatrol Corporation

CONTACTS: Tony L. Shipley

R. Gene Smiley

ADDRESS:

Suite 227

11305 Reed Hartman Highway

TELEPHONE: Cincinnati, 0H 45241 (513) 984-5800

TELEX: 241 481

SYSTEM REQUIREMENTS	
Computer Model: 9825, 9826, 9835, 9845, 85	-channel spectrum an <mark>alyzer</mark> y be 5420A, 5423A, or 3582A)
	ital plotter
Operating System: N.A.	
Other Software: None	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide □X Canada □X Europe (all)   □ U.S. (all regions) □X Mexico □   □ East □ Latin America (all) □   □ South □ □   □ Midwest □ □   □ West □ □   □ South Africa	
Support Services Available:	
	□ remote dial-in  ☑ program modification (quoted on request)
Additional Support Information and Pricing: In Japan, contact M. Kawakami or Toshio Nemoto (Toyoda Tsusho Kaisha, Phone 052 584-5222)	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On-Site Consulting; Seminars	Price: <b>Time &amp; Materials</b> Basis
Documentation Available: User/Technical Manual	Price:
Documentation Available in other languages: English Only	
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTA	ALLATION: April, 1979
ADDITIONAL INFORMATION Sample Data Plot.  Y-Auto- FS-12C-5 8-8 Frequent	Anatroi Corporation  788
RESPONSIBILITIES STATEMENT	

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# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY
I.D. Code:
Application Code:
Expiration Date:

12.21007

PRODUCT NAME

# **VUFAC**

MAINFRAME(S)

9845B/C

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

VUFAC is a program for calculating thermal radiation viewfactors. Viewfactors are required as data for the analysis of radiation effects in thermal network models of heat transfer problems (c.f. THETA).

Numerical integration is used in the program to calculate values for a wide range of geometrical configurations. Surfaces in the program are triangular or quadrilateral regions which can be either flat or generally curved. The data allows for a large number of surfaces to be defined together with a set of "radiation links" corresponding to pairs of surfaces which mutually exchange heat by radiation. The program prints out the view factors for each "link".

A more detailed description of the program is available on request.

RETAIL PRICE: \$2000

COMPANY NAME: H.G. Engineering Ltd.

CONTACTS: Dr. A. Firmin

ADDRESS:

260 Lesmill Road, Don Mills, Ontario M3B 2T5

TELEPHONE:

(416) 447-5535 (U.S. office (617) 667-8888)

SYSTEM REQUIRE	EMENTS		
Computer Model:	9845B/C	Peripherals:	
Memory:	187k		
Operating System:			
Other Software:			
CUSTOMER SUPP	PORT		
Geographic Area Sup			
☐ Worldwide  ☑ U.S. (all regions)  ☐ East ☐ South		Europe (all)	☐ Far East (all) ☐ ☐ ☐
<ul><li>☐ Midwest</li><li>☐ West</li></ul>			
L West		☐ South Africa	☐ Australia/N.Z.
Support Services Ava			
<ul><li>phone-in support</li><li>on-site consulting</li></ul>	⊠ mail-in suppor □ on-site system		<ul><li>□ remote dial-in</li><li>☑ program modification</li></ul>
Additional Support In	formation and Pricing:		
0110701450 70.11	W. O. D. O. J. W. F. J. T. J. T. O. J.	418.	
CUSTOMER THAIR	ING/DOCUMENTATION		
Training Available:	Yes		Price: \$350/day (+ expenses)
Documentation Available: Yes. VUFAC user		manual	Price: \$10 (excl. postage)
Documentation Availa	ble in other languages: No		
NUMBER OF INST	ALLATIONS: 1	DATE OF FIRST INSTAL	LATION: April 1980
ADDITIONAL INFO	RMATION		
Age			
RESPONSIBILITIES		unaling for account	
responsible for its soft any and all liabilities	eveloped by an independent software so ware and support services. HP is not the for and makes no warranties, express of this product does not constitute endors	manufacturer or co-developer of some implied, with respect to this so	such software or support. HP disclaims oftware. Distribution of this product or

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# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21008

Expiration Date:

#### PRODUCT NAME

EPRAN (ENTEK PROGRAMMABLE SPECTRUM ANALYZER)



MAINFRAME(S)

9825, 9826/36, 9845 SERIES 80

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The EPRAN program is used to transform a single or dual channel Spectrum Analyzer into a programmable instrument. Coupling EPRAN with a desktop computer and spectrum analyzer provides engineers and technicians with a low-cost, efficient means of acquiring the following capabilities.

- Programmability using English-language commands.
- Automated repetitive analyzer front-panel pushbutton operations.
- Long-term mass storage of data.
- Calibration in engineering units.
- Digital plots with full annotation using computer's internal CRT or external digital plotter.
- Real and complex arithmetic operations on measured data.
- Tabulation of measured data.
- Control of multiple analyzers.

In addition to these standard program features, EPRAN allows the user to develop subroutines and link them to the main program for extended capabilities and special operations.

The capabilities contained within the EPRAN program enable the user to realize the full analysis power inherent in a spectrum analyzer equipped with a digital interface. Furthermore, the user gains additional time to concentrate on application-related problems rather than the time-consuming effort of writing and debugging complicated I/O algorithms.

The use of EPRAN can be as simple as identifying how measurements will be made, stored, and plotted. EPRAN provides the user with high quality report-ready plots. As an option, user developed programs can be accessed from EPRAN to automatically plot custom logos and titles.

**RETAIL PRICE**: \$1,950 to \$2,500

COMPANY NAME: ENTEK SCIENTIFIC CORPORATION

CONTACTS: TONY L. SHIPLEY

R. GENE SMILEY

ADDRESS:

4480 LAKE FOREST DRIVE, SUITE 316

CINCINNATI, OHIO 45242

TELEPHONE:

(513) 563-7500

#### SYSTEM REQUIREMENTS Computer Model: 9825, 9826/36/, 9845, SERIES 80 Peripherals: Spectrum Analyzer (e.g. HP-3582A and others) Memory: Optional: Digital plotter Operating System: N/A or printer Other Software: None CUSTOMER SUPPORT Geographic Area Supported □ Worldwide 🛛 Canada M Europe (all) ☐ Far East (all) ☑ U.S (all regions) ☑ Mexico 🕅 Japan ☐ Latin America (all) □ East □ South П □ Midwest ☐ West ☐ South Africa ☐ Australia:N.Z. Support Services Available M mail-in support ☐ remote dial-in ☑ on-site systems engineers \* 💆 program modification \* \*Contact supplier for quote. Additional Support Information and Pricing. Most on-site support and program modifications are provided on a Time and Materials basis. CUSTOMER TRAINING/DOCUMENTATION Training Available: On-site seminars. Price: Time and Materials basis. Documentation Available. Yes; English only. Price Included in price of program Documentation Available in other languages: No. NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: ADDITIONAL INFORMATION ENTEK engineers have worked with companies around the world to provide them with state-of-the-art computer-aided-engineering (CAE) software and consulting services. Our engineering staff has a practical working knowledge of computer programming, vibration and noise theory, instrumentation and computer hardware, and hardware interfacing. In addition to our standard library of computer programs, ENTEK offers custom designed software/hardware test systems, engineering consulting services, and technical seminars. RESPONSIBILITIES STATEMENT

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## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21009

Expiration Date:

PRODUCT NAME

EMAP (ENTEK MAPPING SYSTEM)

MAINFRAME(S)

9825, 9826/36, 9845

SERIES 80

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The EMAP program is used to generate a three-dimensional system map of speedspectrum, time-spectrum, or temperature-spectrum data. The program is used with either a single or dual channel spectrum analyzer interfaced (via HPIB) to a desktop computer. Applications include diagnosis of rotating equipment (including order tracking), flow noise evaluation, condition monitoring/periodic maintenance, and non-linear temperature or time dependent property studies.

Measured or analytical data can be plotted using EMAP. Application of the program in a test measurement mode normally involves the use of a two channel Fourier analyzer. Data from one channel is used to compute the spectrum amplitude versus frequency; and data from the second channel is used to provide the appropriate third axis parameter. During the actual measurement procedure the analysis system samples and calculates the frequency spectrum from one channel and tags the spectrum with the operating parameter from the second channel. When the memory unit is filled, the data base is dumped to a mass storage device for later decoding. The data memory is erased, and the process continues until the entire operating range of the machine has been covered. The measurement process is completed by plotting the data in three-dimensional form.

Complete user documentation is provided including example applications and technical specifications.

Options available include rotating system analysis (Bode, Nyquist, runout corrections and phase tracking); high-speed data acquisition; simultaneous dualmap measurement; and tach signal enhancement units (frequency multiplier/divider and frequency-to-DC converter).

RETAIL PRICE: \$3,500 to \$10,000

COMPANY NAME: ENTEK SCIENTIFIC CORPORATION

CONTACTS: TONY L. SHIPLEY

R. GENE SMILEY

ADDRESS:

4480 LAKE FOREST DRIVE, SUITE 316

CINCINNATI, OHIO 45242

TELEPHONE:

(513) 563-7500

SYSTEM REQUIREMENTS			
Computer Model: 9825, 9826/36, 9845, SERIES 80 Peripherals:	•		
Memory <sup>-</sup>	(e.g. HP-3582A and others)		
Operating System: N/A	Optional: Digital plotter or printer		
Other Software: None	•		
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide			
Support Services Available.			
My phone-in support My on-site consulting *  *Contact supplier for quote.  Additional Support Information and Pricing:  Most on-site support and program modifications are provides.	□ remote dial-in  ☑ program modification *  ided on a Time and Materials		
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site seminars.	Price: Time and Materials basis.		
Documentation Available: Yes; English only.	Price: Included in price of program		
Documentation Available in other languages: No.			
NUMBER OF INSTALLATIONS: DATE OF FIRST IN	STALLATION:		
ADDITIONAL INFORMATION  ENTEK engineers have worked with companies around the world to provide them with state-of-the-art computer-aided-engineering (CAE) software and consulting services. Our engineering staff has a practical working knowledge of computer programming, vibration and noise theory, instrumentation and computer hardware, and hardware interfacing.  In addition to our standard library of computer programs, ENTEK offers custom designed software/hardware test systems, engineering consulting services, and technical seminars.			
RESPONSIBILITIES STATEMENT			
This software was developed by an independent software supplier for operation on HF	computer systems. The supplier is solely		

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### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21010

**Expiration Date:** 

PRODUCT NAME

EMODAL (ENTEK MODAL ANALYSIS)

MAINFRAME(S)

9825, 9826/36, 9845

SERIES 80

**PRODUCT DESCRIPTION:** (basic product information, user-specific details, major features & benefits, etc.)

EMODAL was developed to provide engineers with a means of using inexpensive dual channel spectrum analyzers in modal analysis studies. In the past modal work could only be accomplished using a large, expensive computer-aided-testing (CAT) system. Implementing EMODAL on some of the recently developed, low-cost CAT equipment, however, enables a test (or design) engineer to quickly determine potential design flaws in a product and/or optimize proposed design changes. Following is a summary of EMODAL features.

- Automatic normalization of shape vectors.
- Three state-of-the-art methods of shape coefficient extraction:
  - Complex division 2. SDOF residue 3. Function value extraction
- Isometric and orthographic views (from any direction, with rotation in viewing plane) of deformed and undeformed structure.
- Real, Imaginary, Bode, Nyquist, Magnitude, and Phase plots of measured functions.
- Manual or automatic storage of all measurements.
- Extraction of shape coefficients from previously measured data.
- Plots to internal CRT or external plotter.
- Built-in demonstration data for training and familiarization aids.
- All errors trapped, making the program operator-friendly.
- Numerous checklists to verify analyzer setup and to provide overall modal test guidelines.
- Deflection shapes of operating systems without need for artificial excitation.
- User-defined titles and labels for plots.
- All data formats, tape files, etc., accessible and documented to allow interfacing of user-developed programs for special operations.
- MDOF (complex exponential) curve-fitting (optional for Series 80).
- Animation of deflection shapes (optional for Series 80).

Minimum Program Capacity (Varies according to computer and storage medium used.)

- 80 measurement locations
- 3 directions per location
- 90 measurements per cassette tape
- 10 shapes per cassette tape
- ullet 10 shapes in memory simultaneously ullet 200 link elements for use in 3-D shape plotting

Complete user documentation is provided, including technical description of the curve-fitting algorithms and applications for the real versus imaginary mode coefficient extraction technique.

RETAIL PRICE:

\$3,500 to \$7,000

COMPANY NAME: ENTEK SCIENTIFIC CORPORATION

CONTACTS:

TONY L. SHIPLEY

R. GENE SMILEY

ADDRESS:

4480 LAKE FOREST DRIVE, SUITE 316

CINCINNATI, OHIO 45242

TELEPHONE:

(513) 563-7500

SYSTEM REQUIREMENTS				
Computer Model: 9825, 9826/36, 9845, SERIES 80 Peripherals:	Dual Channel Spectrum			
Memory:	Analyzer (e.g. HP-3582A and others)			
Operating System. N/A	Optional: Digital plotter			
Other Software: None	or printer			
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide         ☒ Canada         ☒ Europe (all)           ☒ U.S. (all regions)         ☒ Mexico         □           □ East         □ Latin America (all)         □           □ South         □         □           □ Midwest         □         □           □ West         □         □           □ South Africa				
Support Services Available.				
My phone-in support				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site seminars.	Price: Time and Materials basis.			
Documentation Available: Yes; English only.	Price: Included in price of program.			
Documentation Available in other languages: No.				
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:				
ADDITIONAL INFORMATION				
ENTEK engineers have worked with companies around the state-of-the-art computer-aided-engineering (CAE) sof services. Our engineering staff has a practical work programming, vibration and noise theory, instrumentat and hardware interfacing.  In addition to our standard library of computer programming software/hardware test systems, engineering technical seminars.	Etware and consulting king knowledge of computer cion and computer hardware, cams, ENTEK offers custom			

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# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 12.21011

**Expiration Date:** 



PRODUCT NAME

ESIM (ENTEK SOUND INTENSITY MEASUREMENT)

MAINFRAME(S)

9825, 9826/36, 9845

SERIES 80

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The ESIM program is used with a dual channel spectrum analyzer and desktop computer to perform two microphone sound intensity measurements. The intensity technique is used to identify and rank noise radiating components of a complex mechanical system. Traditionally, a wrapping and windowing technique has been used in noise source identification work; however, this technique is costly and time-consuming to use, and the results may contain relatively large experimental errors. The intensity technique has proven to be an effective tool in overcoming these problems.

Measurement of sound pressure at two closely spaced points in the sound field is used in the sound intensity technique. Finite sum and difference approximations for sound pressure and particle velocity yield an approximation of sound intensity based on the cross-spectrum between the two sound pressure measurements. Sound intensity measurements are made by scanning defined areas around the various sound sources while the cross-spectrum averaging operation is being performed by a digital Fourier analyzer. Average sound intensity values are obtained for the defined areas, and sound power calculations are performed by integrating the average intensity values over the associated areas. Following is a summary of the ESIM program features.

- Three-dimensional measurement capability.
- Three-dimensional vector diagrams.
- Three-dimensional surface contour plots with baseline surface for reference.
- Phase and magnitude mismatch corrections.
- Built-in A-weighting curve.
- Mass storage of all measurements.
- Description of sound radiation characteristics for all or any portion of frequency range.
- Pressure, intensity, and power field mapping.
- English or metric units for areas of measurement.
- Number of measurement locations per set depends on CPU memory minimum is 80.
- Number of sets of measurements depends on mass storage medium minimum is 3 on HP-85 tape.
- Built-in demonstration data for training and familiarization aids.

Complete user documentation is provided including example applications and a technical summary of the sound intensity technique.

RETAIL PRICE:

\$3,000 to \$7,000

COMPANY NAME: ENTEK SCIENTIFIC CORPORATION

CONTACTS:

TONY L. SHIPLEY

R. GENE SMILEY

ADDRESS:

4480 LAKE FOREST DRIVE, SUITE 316

CINCINNATI, OHIO 45242

TELEPHONE:

(513) 563-7500

SYSTEM REQUIREMENTS	
Computer Model: 9825, 9826/36, 9845, SERIES 80 Peripheral	S Dual Channel Spectrum
Memory:	Analyzer (e.g. HP-3582A and others)
Operating System: N/A	Optional: Digital plotter
Other Software: None	or printer
CUSTOMER SUPPORT	
Geographic Area Supported:	
☑ U.S. (all regions)       ☑ Mexico       ☐         ☐ East       ☐ Latin America (all)       ☐         ☐ South       ☐       ☐         ☐ Midwest       ☐       ☐	
□ West □ □ South Africa	☐ Australia N.Z.
Support Services Available	
☐ phone-in support ☐ mail-in support ☐ on-site consulting * ☐ on-site systems engineers *  *Contact supplier for quote.  Additional Support Information and Pricing:  Most on—site support and program modifications are probasis.	□ remote dial-in ☑ program modification *  ovided on a Time and Materials
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On-site seminars.	Price: Time and Materials basis.
Documentation Available: Yes; English only.	Price: Included in price of program.
Documentation Available in other languages: No.	
NUMBER OF INSTALLATIONS: DATE OF FIRST	INSTALLATION:
ADDITIONAL INFORMATION	
ENTEK engineers have worked with companies around to state-of-the-art computer-aided-engineering (CAE) of Our engineering staff has a practical working knowly vibration and noise theory, instrumentation and computer facing.  In addition to our standard library of computer prodesigned software/hardware test systems, engineering technical seminars.	software and consulting services. Ledge of computer programming, apputer hardware, and hardware ograms, ENTEK offers custom
RESPONSIBILITIES STATEMENT	

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# Software Supplier Product Summary

#### **HP USE ONLY**

I.D. Code:

Application Code: 12.21012

**Expiration Date:** 

Product Name:

Mainframe(s):

EMESH (Entek Mesh Generation)

9825, 9826/36, 9845

Series 80

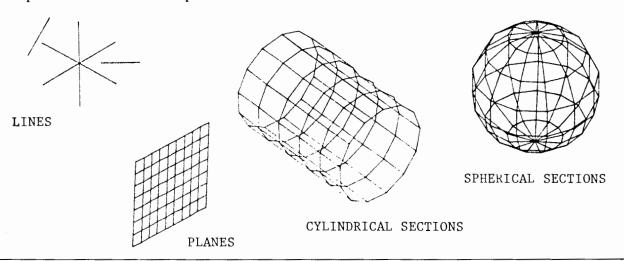
**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The EMESH computer program is a powerful stand-alone utility program designed to interactively construct a set of measurement locations for use by the ESIM (Entek Sound Intensity Measurement) and EMODAL (Entek Modal Analysis) programs.

One of the most time-consuming tasks assoicated with intensity measurements or modal analysis studies is defining and inputting the gridwork of measurement points to the computer. EMESH allows the user to overcome these problems by using standard shape elements to define simple or complex sets of measurement locations. Standard shapes contained within EMESH include lines, circles, planes, cylindrical sections, and spherical sections. These basic shapes are used in additive fashion to build up any desired geometry. The shapes can be defined so that they are oriented (have their axis) parallel to the X,Y, or Z axis, and can be offset to any point in space. This allows the figures to intersect or be independently located.

The user is also given the ability to manually add individual points to the structure to provide special connectivity, asymmetric visual reference points, or other desired graphical representations.

Examples of standard shapes contained within EMESH:



Retail Price:

\$1,000 to \$1,500

Company Name: Entek Scientific Corporation

Contacts: Tony L. Shipley

R. Gene Smiley

Address:

4480 Lake Forest Drive, Ste. 316

Cincinnati, Ohio 45242

Telephone:

**(513)** 563 – 7500

SYSTEM REQUIRE	MENTS		to to to to to to to to to to to to to t	
Computer Model: 98	25, 9826/36, 9845, Se	eries 80	Peripherals:	
Memory:			Optional: D	igital Plotter
Operating System:	N/A			
Other Software:	None			
CUSTOMER SUPPO	DRT			
Geographic Area Sur	pported:			
🗓 U.S. (all regions)			<u>X</u> :	East (all) Japan tralia/N.Z.
Support Services Ava				
* Contact suppl Additional Support In	ier for quote.  nformation and Pricing:  upport and program mod		∏ pro(	ote dial-in gram modification * Time and
CUSTOMER TRAIN	IING/DOCUMENTATION			
Training Available:	On-site seminars.		Price:	Time and Materials basis.
Documentation Avai	able: User manual.		Price:	Included in price of program.
Documentation Avai	lable in other languages: $_{ m EI}$	nglish only.		
NUMBER OF INST	ALLATIONS:	DATE OF FIRS	T INSTALLATION	l:
ADDITIONAL INFO	DRMATION			
with state-of services. ( programming hardware, and	eers have worked with of-the-art computer-approximation and noise and hardware interfaction our standard librations.	ided-engineering has a practical theory, instrum ng. ary of computer	g (CAE) softwa working know mentation and programs, ENT	re and consulting ledge of computer computer  EK offers custom

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# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 12.21013

**Expiration Date:** 

Product Name:

EBALANCE (Entek Multiplane Balancing)

Mainframe(s):

9825, 9826/36, 9845

Series 80

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

EBALANCE is a computer program used for multiplane balancing of rotating machinery. The program was developed to eliminate the need for time-consuming manual vector plotting on polar graph paper or computing complex numbers by hand. The vibration sensitivity of the machine to a known trial unbalance (influence coefficient) can either be computed from vibration readings and trial weight data, or entered directly. Once the system has been defined via its influence coefficients, these data can be stored for later use, eliminating repetitive data entry sessions.

The major computational features of the program are its ability to:

- solve for an exact solution (mathematically cause all vibration readings to zero) when the number of vibration measurement locations equals the number of balance correction planes;
- compute a least-squares solution (compromise vibrations at all measurement locations to a minimum value) if there are more vibration measurement locations than balance correction planes; and
- predict the resulting vibration readings if an arbitrary set of correction weights is supplied by the user.

The program is capable of handling fifteen (15) balance planes and fifteen (15) vibration readings. EBALANCE provides built-in data for operator training and comes with complete user documentation.

Retail Price:

\$2,500 to \$4,000

Company Name: Entek Scientific Corporation

Contacts: Tony L. Shipley R. Gene Smiley

Address:

4480 Lake Forest Dr., Ste. 316

Cincinnati, Ohio 45242

Telephone:

(513)563-7500

SYSTEM REQUIRE	MENTS		
Computer Model: 98	825, 9826/36, 9845, S	eries 80	Peripherals:
Memory:			Optional: Printer
Operating System:	N/A		
Other Software:	None		
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
☐ Worldwide  ☑ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	X Canada X Mexico Latin America (all)		Far East (all)  X _Japan  Australia/N.Z.
☒ on-site consulting * Contact supp Additional Support I	汉 mail-in so g* 区 on-site sy lier for quote. nformation and Pricing: upport and program mo	ystems engineers *	remote dial-in To program modification *  provided on a Time and
CUSTOMER TRAIN	NING/DOCUMENTATION		
Training Available:	On-site seminars.		Price: Time and Materials basis.
Documentation Avai	lable: User manual.		Price: Included in price of program.
Documentation Avai	lable in other languages: E	nglish only.	
NUMBER OF INST	ALLATIONS:	DATE OF FIRS	ST INSTALLATION:
ADDITIONAL INFO	ORMATION		
with state-of services. ( programming hardware, and In addition	of-the-art computer-a Our engineering staff , vibration and noise nd hardware interfaci to our standard libra ftware/hardware test	ided-engineering has a practical theory, instrum ng. ary of computer	nd the world to provide them g (CAE) software and consulting l working knowledge of computer mentation and computer programs, ENTEK offers custom ering consulting services, and

#### RESPONSIBILITIES STATEMENT

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# Referenced Software Supplier Product Summary



#### **HP USE ONLY**

I.D. Code: 10023

Application Code: 13.31001

Expiration Date:

Product Name:

Mainframe(s):

### CHEMICAL ENGINEERING PAC 1

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This package is designed to solve many of the move time consuming problems which come up in the design or troubleshooting of a chemical plant. The programs included are:

FLUID FLOW ANALYSIS - Solves interchangeably for pressure drop, flow rate, or pipe diameter in a variety of units - both English and Metric. Allows for consideration of fittings and valves.

EQUATIONS OF STATE - Provides both the ideal gas and Redlich-Kwong equations of state.

DEW POINT AND BUBBLE POINT CALCULATIONS - Determines the equilibrium temperature for a mixture of up to 25 components in an ideal mixture.

ISOTHERMAL FLASH CALCULATION - Calculates the mole fraction of the feed vaporized and the resulting liquid and vapor composition for ideal solutions.

ADIABATIC FLASH CALCULATION - Calculates the mole fraction of the feed vaporized, the equilibrium temperature, and product compositions for ideal solutions.

PACKED COLUMN ANALYSIS - Determines the required packed column diameter such that the gas velocity will be 50% of flooding.

McCABE THIELE ANALYSIS - Solves interchangeably for number of stripping and rectification trays, mole fraction low boiler in the feed, mole fraction low boiler in the distillate, mole fraction low boiler in the bottoms, thermal condition of the feed, reflux ration, and average Murphree tray efficiency.

SIMULTANEOUS NON-LINEAR EQUATIONS - Uses a Newton-Raphson convergence scheme to solve a system of up to 12 equations with 16K memory and up to 20 equations with 32K.

Retail Price:

\$295.00

Company Name: KELIX SOFTWARE SYSTEMS

Contacts: Kerry R. Kelly

David R. Hendricks

Address:

425 Daventry Drive

Baton Rouge, Louisiana 70808

Telephone:

(504) 769-6785

SYSTEM REQUIRE	MENTS					
Computer Model:	HP-85A		Peripherals:			
Memory: 32K memory required only tor the solution of more than 12						
s i multan Operating System:	neous non-linear eq	<b>u</b> ations.				
Other Software:						
CUSTOMER SUPPO	ORT					
Geographic Area Sup	ported:					
	Latin America (all)		☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Support Services Ava	ilable:					
	(X mail-in	n support e systems engineers	☐ remote dial-in ☐ program modification			
Additional Support Information and Pricing:  Modifications are available at additional cost. Custom software development is also available.						
CUSTOMER TRAIN	ING/DOCUMENTATION	I				
Training Available:	Not necessary		Price:			
Documentation Available: One 62 page manual with one or more Price: examples for each of the eight programs in the Pac.						
Documentation Availa	able in other languages:					
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRST	INSTALLATION:			
ADDITIONAL INFO		•	•			

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# Software Supplier **Product Summary**

HP USE ONLY

I.D. Code: 10023

Application Code: 13.31002

**Expiration Date:** 

Product Name:

# Multicomponent Distillation

Mainframe(s):

HP-85A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This program performs many of the calculations necessary for the analysis of multicomponent-multifeed distillation columns. The column can have up to 5 feed streams and involve as many as 15 components.

Program calculations are based on the Fenske-Underwood-Gilliland shortcut method. The software may be used to aid in the design of new columns or the rating of existing columns.

COLUMN DESIGN - The user may specify the recovery of the two key components and the reflux ratio as a multiple of the minimum reflux. The program calculates the distillate and bottoms rates and compositions, the minimum number of theoretical stages, the minimum reflux ratio, actual number of stages, operating reflux ratio, column efficiency, feed plate location, maximum vapor velocity, minimum column diameter, and condenser and reboiler temperatures and heat duties. It also generates a plot of the number of theoretical stages versus reflux ratio.

COLUMN RATING - Here the user may specify the recovery of one component, the number of plates or stages, and either the maximum vapor rate or reflux ratio. The program will determine the distillate and bottoms rates and compositions, the operating reflux ratio, the column efficiency, maximum vapor velocity, and the condenser and reboiler temperatures and duties.

The program is very flexible in that the user may allow for nonideality in both the liquid and vapor phases. If nonideal liquid is specified, liquid phase activity coefficients are determined using the Scatchard-Hilderbrand regular solution equations. The Redlich-Kwong equation of state is used to calculate fugacity coefficients in the case of nonideal gas.

Finally, the user has the option of forming a customized data file to store physical property constants of frequently used components.

Retail Price:

\$195.00

Company Name: KELIX SOFTWARE SYSTEMS

Contacts: Gordon D. Kelly

425 Daventry Drive

Address:

Baton Rouge, Louisiana 70808

Telephone: (504) 769-6785

SYSTEM REQUIREMENTS				
Computer Model: HP-85A	Peripherals:			
Memory: 32K memory is required				
Operating System:				
Other Software:				
CUSTOMER SUPPORT		· · · · · · · · · · · · · · · · · · ·		
Geographic Area Supported:				
□ Worldwide □ Canada   ☑ U.S. (all regions) □ Mexico   □ East □ Latin America (all)   □ South □				
Support Services Available:				
☑ phone-in support ☑ mail-in supp ☑ on-site consulting ☐ on-site syst	oort ems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>		
Additional Support Information and Pricing:				
Program modifications are available a	t additional charge.			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: Not necessary		Price:		
Documentation Available: 78 page manual wi	th four examples	Price:		
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTAL	LATION:		
ADDITIONAL INFORMATION	/			
RESPONSIBILITIES STATEMENT		-		

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**HP USE ONLY** 

I.D. Code: 10023

Application Code: 13.31003

Expiration Date:

Product Name:

Mainframe(s):

#### FLOW NETWORK ANALYSIS

**HP 87** 

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The latest calculation methods have all been incorporated into this state-of-the-art software for the analysis of fluid piping networks.

For each node the user must specify either the nodal pressure or the flow rate into or out of the network through the node. The program will then determine unknown nodal pressures and internodal flow rates for an arbritrary N node pipe network.

#### Advantages over the standard Hardy Cross technique:

- The calculations apply to any fluid of constant density and viscosity--not just water.
- The "multiple K" method is used to account for fittings and valves. This is more accurate than the equivalent length or the "single K" method since it considers the effects of Reynolds number and pipe diameter.
- The Churchill equation is used to calculate friction factor. This equation is valid for the laminar, transitional, and turbulent flow regimes.

#### Other special features:

- Friendliness the flow network is easily described to the computer. Fittings, valves, and pipe surface roughness are menu selected. (it is not necessary for all pipes to have the same surface roughness)
- Flexibility modifications to the network description can be made at any time without reentering unchanged parameters. In fact, the entire network data set can be stored on tape or disc for future analysis with a simple command.

Retail Price:

\$500

Company Name:

Contacts:

Address:

KELIX SOFTWARE SYSTEMS 425 DAVENTRY DRIVE

BATON ROUGE, LOUISIANA 70808

Telephone:

Telephone: (504) 769-6785

SYSTEM REQUIREMENTS					
Computer Model: HP-87	Peripherals: Disk drive 82902M or				
Memory: Standard	82901M Line Printer				
Operating System: Standard					
Other Software: None					
CUSTOMER SUPPORT					
Geographic Area Supported:					
☐ East ☐ Latin America (all) ☐					
Support Services Available:					
<ul><li>☒ phone-in support</li><li>☒ mail-in support</li><li>☐ on-site consulting</li><li>☒ on-site systems engineers</li></ul>	□ remote dial-in ☒ program modification				
Additional Support Information and Pricing:					
CUSTOMER TRAINING/DOCUMENTATION					
Training Available:	Price:				
Documentation Available:	Price:				
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:					
ADDITIONAL INFORMATION					
DESDONSIBILITIES STATEMENT					

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# **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 14.31001

Expiration Date:

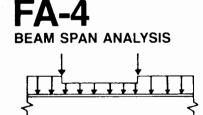
Product Name:

Mainframe(s):

85/FA-4 Beam Span Analysis

HP-85 HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



Calculates shears, moments, and deflections for a beam span including (a) simply supported beam with or without cantilevers or (b) spans of a continuous frame using data from the Continuous frame Program. Data may be obtained for cantilevers, if any End moments may be input. Variable sections can be considered. If the material is reinforced concrete, calculations can be based on effective moment of inertia.

Input

Output

Span Data Cantilever Data (if any) Loads End Moments (if any)

End Moments and Shears Inflection Points Shear, Moment, and Deflection at specified points

SOLUTION METHOD	PROBLEM SIZE	LOADINGS	COMMENTS		
Moment Area Method and ACI 318 for effective moment of inertia	9 load changes per span	Concentrated loads     Uniform loads (partial orfull length)     Dead or live loads	Allows variable sections     Computes moments,     shears and deflections		

Retail Price:

\$350.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

414-354-0243 or 800-558-5137

SYSTEM REQUI	REMENTS						
Computer Model: Memory:		(Requires (Requires		Peripherals:	May be 5 1/4"		
•							
Operating System	:						
Other Software:							
CUSTOMER SUF	PPORT						
Geographic Area	Supported:						
☐ Worldwide  ☑ U.S. (all regions ☐ East ☐ South ☐ Midwest ☐ West	S)	o America (all)			Far East (a		
Support Services	Available:						
☐ phone-in suppo					] remote dia ] program m		on
Additional Support ECOM compre and current	ehensive	maintenar	nce program	available.	Call fo	or det	ails
CUSTOMER TRA	AINING/DOC	UMENTATION	l				
Training Available	:At ECOM	or specia	al arrangem		rice: \$400 plus	trave	
Documentation A	vailable: <sub>Comp</sub> pro	prehensive gram.	e manual su	upplied with P	rice: exper	1505	
Documentation A	vailable in oth	ner languages:					
NUMBER OF IN	STALLATION	<b>NS</b> : 50	DATE O	F FIRST INSTALLA	TION: 3,	/81	
ADDITIONAL IN	FORMATION	٧					
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HP-85 I/O I do not run				cause memory	overflow	w erro	rs;
RESPONSIBILITIE	S STATEMENT	•					

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**HP USE ONLY** 

I.D. Code: 10001

Application Code: 14.31002

**Expiration Date:** 

Product Name:

85/GS-1 General Section Properties

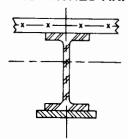
Mainframe(s):

HP-85

HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

# GS-1 GENERAL SECTION PROPERTIES ANALYSIS



Determines the properties of irregularly shaped sections, area elements, line elements, and concrete elements. Gross, uncracked transformed, and cracked section properties for normal or lightweight concrete are calculated for reinforced concrete sections. Effective moments of inertia can also be obtained for an applied moment.

### Input

Element Type
Element Dimensions
or Properties

### Output

Area or Lengths Moments of Inertia Centroidal Location Radius of Gyration Section Moduli Product of Inertia

PROBLEM SIZE	LOADINGS	COMMENTS
20 area or line elements	N/A	1) Computes total area, moment of inertia, centroid and section moduli or 2) Computes gross, uncracked, cracked and effective moment of inertia and centroid

Retail Price:

\$250.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIR	EMENTS						
Computer Model: Memory:		(Requires (Requires		Periphera	nis: May be 5 1/4"		
Operating System:							
Other Software:							
CUSTOMER SUP	PORT						
Geographic Area S							
South	L Li _		U	e (all) Africa			
Support Services A							
	rt ng.	⊠ mail-in □ on-site	i support e systems engli	neers	□ remote d □ program		ion
and current	hensive pricir	e maintenar		am available	. Call:	for <b>d</b> e	tails
CUSTOMER TRA	INING/DO	CUMENTATION	I				
Training Available:	At ECOM	M or specia	al arrang	ement		s trav	
Documentation Av	ailable: Coi pro	mprehensiv ogram.	e manual	supplied wit	hPrice:	enses	
Documentation Av	ailable in ot	her languages:					
NUMBER OF INS	STALLATIO	<b>NS</b> : 50	DATE	OF FIRST INSTAL	LATION:	3/81	
ADDITIONAL INI	FORMATIO	N					
ECOM Progra	ms are	in use in	500 engi	ted on the H	s around		
HP-85 I/O do not run	ROM and, with I,	or Matrix O or Matr	ROMS may	cause memor	y overfl	ow err	ors;
RESPONSIBILITIES	S STATEMEN	T					

**HP USE ONLY** 

I.D. Code: 10001

Application Code:

14.31003

Expiration Date:

Product Name:

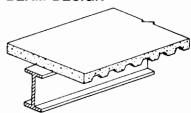
85/SD-3 Composite Steel Beam Design

Mainframe(s):

HP-85 HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

SD-3
COMPOSITE STEEL
BEAM DESIGN



Designs or checks simple span beams of composite steel and concrete construction. Loads may be concentrated or uniform (full or partial length). No provision is made for continuity or end moments. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual. Any steel strength can be considered. All calculations are made in accordance with the AISC specifications.

## Input

Overall Slab Thickness
Depth of Metal Deck
Concrete Strength
Modular Ratio
Beam Spacing
Shored or Unshored
Data
Span Length
Loads
Nominal Depth of
Beam
Shear Connector
Capacity

### Output

Selected Beam Section Reactions Maximum Moment and Location Stresses (Bending and Web Shear) Midspan Deflection Shear Connector Data

Retail Price:

\$450.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIRE	EMENTS			
Computer Model: F	HP-85A (Requires HP-87A (Requires	32K) 64K)	Peripherals: May be used 5 1/4" Disc	d with C Drives
Operating System:				
Other Software:				
CUSTOMER SUPP	PORT			
Geographic Area Su	ipported:			
☐ Worldwide  ☑ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	Canada Mexico Latin America (all)		Far East (all)	
Support Services Av				
phone-in support on-site consulting	g ∑ mail-in g ∷ on-site	support systems engineers	<pre>c remote dial-in c program modification</pre>	ation
	Information and Pricing: nensive maintenan pricing.	ce program ava	ilable. Call for de	etails
CUSTOMER TRAIL	NING/DOCUMENTATION			
Training Available:	At ECOM or by sp	ecial arrangem	Price: \$400.00 p plus trav expenses	
Documentation Ava	ilable: Comprehensiv program.	e manual suppl	ied with Price:	
Documentation Ava	ilable in other languages:			
NUMBER OF INST	TALLATIONS:	DATE OF FIRS	ST INSTALLATION:	
ADDITIONAL INF	ORMATION			
	n is also current ns are in use in	_	the HP-98 <b>4</b> 5;  Ig firms around the v	world.
	OM and/or Matrix with I/O or Matri		e memory overflow er	cors;
ECOM Steel I in metric ve		ed States shap	es and are not avai	lable
DECDONICIEN ITIES	OTATEMENT			

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 14.31004

**Expiration Date:** 

Product Name:

85/SA-1 Shear Wall Analysis

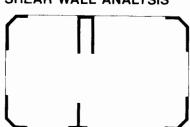
Mainframe(s):

HP-85

IIP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

# SHEAR WALL ANALYSIS



Analyzes structures supported by shear walls for wind and seismic loads. The shears and moments are evaluated for the structure and for each wall element in each direction at every floor level. Seismic forces are determined using the provisions of the Uniform Building Code

### Input

Seismic Data Floor Heights and Weights Loads Wall Element Configurations Location of Walls

## Output

Shear and Moment to Each Floor Load Eccentricities Shears and Moments to Each Wall Element

 SOLUTION METHOD	PROBLEM SIZE	LOADINGS	COMMENTS
N/A	30 stories with 40 shear wall elements	Lateral loads due to wind and/or seismic in two per- pendicular directions	1) The program distributes load (using UBC or BOCA) to individual walls 2) Computes deflections, moments, and shears, for each element

Retail Price:

\$600.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIREMENTS
Computer Model: HP-85A (Requires 32K)  HP-87A (Requires 64K)  Peripherals: May be used with 5 1/4" Disc Drives
Operating System:
Other Software:
CUSTOMER SUPPORT
Geographic Area Supported:
Worldwide
NUMBER OF INSTALLATIONS: 15 DATE OF FIRST INSTALLATION: 4/81
ADDITIONAL INFORMATION  This program is also currently marketed on the HP-9845; ECOM Programs are in use in 500 engineering firms around the world.  HP-85 I/O ROM and/or Matrix ROMS may cause memory overflow errors; do not run with I/O or Matrix ROMS in place.

**HP USE ONLY** 

I.D. Code: 10001

Application Code: Expiration Date:

14.31005

Product Name:

85/DA-1 Dynamic Load Analysis

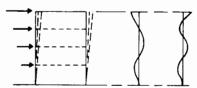
Mainframe(s):

HP-85

HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

# DA-1 DYNAMIC ANALYSIS



Determines natural frequencies of vibration, characteristic mode shapes, and modal participation factors for a multi-degree elastic system with lumped masses (Frequency Analysis). The dynamic response of any portion of the system to a given acceleration spectrum may then be determined using the modal method of analysis (Modal Analysis).

### Input

Accelerations
Lumped Masses
Number of Modes
Flexibility or Stiffness
Matrix
Unit Load Value of
Response

### Output

Frequency Analysis.
Circular Natural
Frequency, and
Period for Each
Mode
Modal Shape Values
Modal Participation
Factor
General Forcing Factor
Response Component
for Each Mode
Modal Responses
(Vector and Absolute

## SOLUTION METHOD

Frequency and Modal Analysis

## PROBLEM SIZE

20 lumped masses 3 "load levels" Any number of modal response items

## LOADINGS

Spectral acceleration for each mode, for each "load level"

## COMMENTS

- Computes natural frequency and shapes
   Computes model part
- Computes modal participation factors and responses

Retail Price:

\$400.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road Milwaukee, WI 53223

Telephone:

SYSTEM REQUIRE	MENTS						
Computer Model: H Memory:		(Requires (Requires		Peripheral	s: May be 5 1/4"	used wit Disc Dri	h ve <b>s</b>
Operating System:							
Other Software:							
CUSTOMER SUPPO	ORT						
Geographic Area Su	ported:						
☐ Worldwide  ☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	☐ Mexion ☐ Latin ☐	co America (all)		ppe (all)			
Support Services Ava	ailable:						
<ul><li>IX phone-in support</li><li>☐ on-site consulting</li></ul>		⊠ mail-in □ on-site			☐ remote dia		
Additional Support I	nformatio	n and Pricing:					
ECOM compreh and current	ensive pricin	e maintenar	nce progr	cam available.	Call f	or detail	.s
CUSTOMER TRAIN	ING/DO	CUMENTATION					
Training Available:	able: Cc	omprehensiv		rrangement l supplied wit	plus	.00 per d travel e	lay exp <b>e</b> n
Documentation Avai	_	ogram.					
NUMBER OF INST	ALLATIO	ONS: 15	DATI	E OF FIRST INSTAL	LATION: 4	/81	
ADDITIONAL INFO	RMATIO	N			-	1.2.7	
			_	eted on the HF ineering firms		the world	ı.
HP-85 I/O RO do not run w				y cause memory in place.	overflo	w errors;	
responsible for its so	eveloped b	oy an independent I support services.	HP is not the n	olier for operation on HP nanufacturer or co-develon th respect to the supplie	oper of this soft	ware and makes	

HP USE ONLY

I.D. Code: 10001

Application Code: 14.31006

Expiration Date:

Product Name:

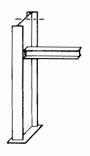
85/SD-2A Steel Tube & Pipe Column

Mainframe(s):

HP-85 HP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

## SD-2A STEEL TUBE AND PIPE COLUMN DESIGN



Designs or checks wide flange, tube or pipe steel sections subjected to axial loads with or without bending moments applied about axes of the column. The moments can be applied to either or both ends of the column. The program selects the lightest section for a specified depth. "Pinended column" base plates can also be designed. Base plate dimensions can be established for special "builtup" column shapes. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual

### Input

Material Properties Bracing Conditions Axial Loads Moments Nominal Depth

## Output

Lightest Section AISC Interaction Equation Results Base Plate Data

Retail Price:

\$275.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIREMENTS						
Computer Model: HP-85A HP-87A	(Requires 3		Peripherals:	May be 1 5 1/4" I	used w Disc D	ith rives
Operating System:						
Other Software:						
CUSTOMER SUPPORT						
Geographic Area Supported:						
☐ Worldwide ☐ Can.  ☐ U.S. (all regions) ☐ Mex ☐ East ☐ Latin ☐ South ☐ ☐ ☐ ☐ Midwest ☐ ☐ ☐ West ☐ ☐ ☐ Support Services Available:	ico n America (all)	Europe (all)				
	'⊈i mail-in su	upport	(1)	remote dial-	in	
<ul><li>☒ phone-in support</li><li>☐ on-site consulting</li></ul>	on-site sy	stems engineers		program mo		
Additional Support Information ECOM comprehensive and current pricing	e maintenance	e program ava	ilable.	Call for	deta	ils
CUSTOMER TRAINING/DO	CUMENTATION					
Training Available: At ECO	OM or by spec	cial arrangem	ent <sup>Pri</sup>	-	trave	
Documentation Available: Co	omprehensive rogram.	manual suppl	ied with <sup>ri</sup>	ce: exper	ises	
Documentation Available in o	other languages:					
NUMBER OF INSTALLATION	ONS:	DATE OF FIRS	T INSTALLAT	ION:		
ADDITIONAL INFORMATION	ON		, , , ,, ,,, ,,, ,, ,, ,, ,, ,, ,, ,, ,			
ECOM Programs are	in use in 50	00 engineerin	g firms a	round th	ne wor	ld.
HP-85 I/O ROM and do not run with I	/or Matrix R0 /O or Matrix	OMS may cause in place.	memory o	verflow	error	s;
RESPONSIBILITIES STATEME	NT					

HP USE ONLY

I.D. Code: 10001

Application Code: 14.31007 **Expiration Date:** 

Product Name:

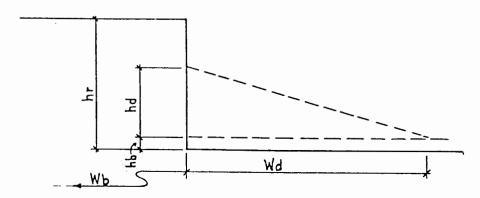
85/SP-1 Snow Load Analysis

Mainframe(s):

HP-85 HP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

## SP-1 **SNOW LOAD ANALYSIS**



DESCRIPTION

This program calculates the snow loads due to drifts from one roof to another. The drift is due to a difference in height of the roof or from a taller adjacent building. The load criteria is calculated from the:

> METAL BUILDING SYSTEMS MANUAL METAL BUILDING MANUFACTURERS ASSOCIATION 1974 EDITION

or the 1981 EDITION

After summarizing all input the program calculates TOTAL LOAD and SNOW LOAD for all spaced supports. It also calculates the appropriate spacing for a known span strength. If supports are perpendicular then the moments, reactions and moment of inertia are calculated based on the length and spacing of the supports along with information on loads.

Retail Price:

\$300.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIREMENTS	
	s:May be used with
Memory: HP-87A (Requires 64K)	5 1/4" Disc Drives
Operating System:	
Other Software:	
OUCTOMED CUIDDODT	
CUSTOMER SUPPORT	
Geographic Area Supported:  ☐ Worldwide  ☐ Canada  ☐ Europe (all)	Ear Fact (all)
🖫 U.S. (all regions) 🗆 Mexico	
☐ East ☐ Latin America (all) ☐	
Midwest	
☐ West ☐ ☐ ☐ South Africa	☐ Australia/N.Z.
Support Services Available:	•
<ul><li>☒ phone-in support</li><li>☒ on-site consulting</li><li>☒ on-site systems engineers</li></ul>	☐ remote dial-in ☐ program modification
ECOM comprehensive maintenance program available. and current pricing.  CUSTOMER TRAINING/DOCUMENTATION	
Training Available: At ECOM or by special arrangement	Price: \$400.00 per day plus travel expenses
Documentation Available: Comprehenseive manual supplied with program.	i. ₽Hce:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 10 DATE OF FIRST INSTAL	<b>LATION:</b> 2/82
ADDITIONAL INFORMATION	
ECOM Programs are in use in 500 engineering fimrs	s around the world.
HP-85 I/O ROM and/or Matrix ROMS may cause memory do not run with I/O or Matrix ROMS in place.	y overflow errors;
•	
RESPONSIBILITIES STATEMENT	



HP USE ONLY

I.D. Code: 10001

Application Code: 14.31008

**Expiration Date:** 

Product Name:

Mainframe(s):

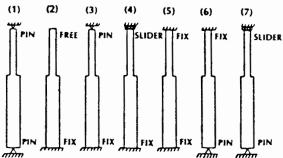
85/ SP-2 Stepped Column Analysis

HP-85, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

## SP-2

## STEPPED COLUMN ANALYSIS



The recommended procedure to determine slenderness ratios for stepped columns is to examine both the upper shaft and the lower shaft of the column. The determination of slenderness ratios for the upper and lower portions of the column about the weak axis is typically straight forward, as lateral bracing is generally provided. The difficulty, therefore, arises in determining the slenderness ratio about the strong axis. The slenderness ratio of the upper shaft is dependant on the axial load and stiffness of the lower shaft relative to the axial load and stiffness of the upper shaft. The same is true for the lower shaft.

The proper determination of Kx for the upper or lower shaft depends on:

- 1. End fixity conditions of the column.
- 2. Ratio of the axial loads on the column.
- 3. Ratio of the moments of inertia of the upper shaft to lower shaft.
- Ratio of the length of the upper and lower shafts.

This program can be used to determine the effective lengths of stepped crane columns for the end conditions shown in Figure 1.

Retail Price:

\$175.00

Company Name:

ECOM Associates, Inc.

Contacts: Jerry Manning

Address:

8634 W. Brown Deer Road

Gary Koser

Milwaukee, WI 53223

Mike Fegley

Telephone:

(414) 354-0243 or (800) 558-5137

SYSTEM REQUIRE	MENTS			W 4 W 10	
Computer Model: Memory:	HP-85A (requir HP-87A (requir	es 32K) es 64K)		Peripherals:	Must be used with 5½" Disc Drives 82901M or 9135A and
Operating System:					82905A Printer (minimum)
Other Software:					
CUSTOMER SUPPO	ORT				
Geographic Area Sup	ported:				
∪.S. (all regions)     □ East	ズ Canada ☐ Mexico ☐ Latin America (a				Far East (all)    Australia/N.Z.
Support Services Ava	ilable:				
✗ phone-in support □ on-site consulting	1 <b>(X</b> )	nail-in supp n-site syste	ort ems engineers		remote dial-in program modification
Additional Support In ECOM comprehe current prici	nsive maintena ng.	nce progr	ram available.	Call for	details and
Training Available:	At ECOM or spe		angement.		ice: \$400.00 per day plus travel expenses.
Comprehensive	able: manual suppli	es with p	orogram.	Pr	ice:
Documentation Avail	able in other langua	ges:			
NUMBER OF INST	ALLATIONS:		DATE OF FIRS	T INSTALLAT	TION:
HP-85 I/O RC	s are in use i	x ROMS ma			he world. errors; do not
			189		

## RESPONSIBILITIES STATEMENT

HP USE ONLY

I.D. Code: 10001

Application Code: 14.31009

Expiration Date:

Product Name:

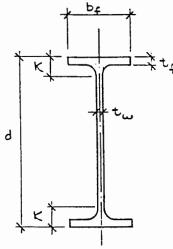
85/SP-3 Bolted Framed Beam Connecton

Mainframe(s):

HP-85 HP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product

information, user-specific details, major features and benefits, etc.)



# SP-3 BOLTED FRAME BEAM CONNECTION

This program can be used to <u>design</u> or <u>check</u> bolted framed beam connections. The bolt holes can be either standard size, horizontally short slotted in the connection angles or beam web, or oversized in the connection angles or beam web. If either short slotted or oversized holes are selected, the corresponding hole in either the angle or web will be a standard hole. The connection design is in accordance with the AISC Manual (1), (2).

The program applies the criteria of bolt spacing, minimum edge distances, and maximum edge distance for both the beam web and the connection angles. Bearing stresses and shear stresses are incorporated in the analysis. For beams with a top cope, block shear is included.

The check routine determines the connection capacity for each criterion and gives error messages for those criteria which are violated.

The design routine determines the number of bolts and the angle thickness required. The vertical edge distances are optionally computed, if desired. The bolt spacing can be set at 2-2/3 or 3 times the bolt diameter or at an inputted value.

Retail Price:

\$350.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIREM	ENTS		
	-85A (Requires 32K) -87A (Requires 64K)	Peripherals:	May be used with 5 1/4" Disc Drives
Operating System:			
Other Software:			
CUSTOMER SUPPOR	₹T		
Geographic Area Supp			
Worldwide  X U.S. (all regions)  East  South  Midwest  West	Canada  Mexico  Latin America (all)	Europe (all)	Far East (all)  G G G G G G G G G G G G G G G G G G
Support Services Avail	able:		
phone-in support     on-site consulting	X∶ mail-in suppor ⊡ on-site system	t as engineers	remote dial-in program modification
and current pr	nsive maintenance p	rogram available.	Call for details
Training Available: At	t ECOM or by specia	l arrangement P	rice:\$400.00 per day plus travel expenses
Documentation Availab	ole: Comprehensive man program.	nual supplied with	rice:
Documentation Availab	ole in other languages:		
NUMBER OF INSTAI	LATIONS:	DATE OF FIRST INSTALLA	TION:
ADDITIONAL INFOR	MATION		
LCOM Programs	are in use in 500	engineering firms	around the world.
HP-85 I/O ROM do not run wi	and/or Matrix ROMS th I/O or Matrix RO	may cause memory of MS in place.	overflow errors;
RESPONSIBILITIES ST	ATEMENT		

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 14.3101()

**Expiration Date:** 

Product Name:

85/DF-3 Re-Run Data Storage

Mainframe(s):

HP-85

HP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

## DF-3

## **DATA STORAGE FOR FA-3**

## GENERAL DESCRIPTION

The Data Filing Program, 85/DF-3, is used to store data from the General Frame Analysis Program, 85/FA-3, in order to facilitate the rerun or reuse of this data.

General Frame Analysis, 85/FA-3, has a single set of data files on the program media which stores data that can be used during reanalysis. However, this set of data files on the analysis program accomodates storage of only the data from the analysis last run, whereas the Rerun Data Files, 85/DF-3, will store analysis data from several previous runs for later use and availability. The Rerun Data File Program controls the accessing and cataloging of the files on the data file

### PROBLEM SIZE LIMITS

Each file on the 85/DF-3 media is capable of storing all of the necessary data for one run of the 85/DF-3 Analysis Program. The number of files available per storage media may vary according to the system configuration used as shown below:

Tape Storage Data Files

With the 85/DF-3 program on the tape Without the 85/DF-3 program on the tape 8 Files

Disk Storage Data Files

Without any programs on the disk With 85/DF-3 & 85/FA-3 on the disk 10 Files

2 Files

With the 85/DF-3 program on the disk

8 Files

Retail Price:

\$200.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

SYSTEM REQUIREMENTS
Computer Model: HP-85A (Requires 32K) Peripherals: Must be used with HP-87A (Requires 64K) HP-85 with 82902M or 82901M Disc Driv
Operating System: HP-87 with 82901M, 9134A, or 9135A
Other Software:  Disc Drives
CUSTOMER SUPPORT
Geographic Area Supported:
□ Worldwide ☒ Canada □ Europe (all) □ Far East (all)   ☒ U.S. (all regions) □ Mexico □ □ □ □ □ □ □   □ East □ Latin America (all) □ □ □ □ □ □ □ □ □   □ South □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □   □ Midwest □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □   □ West □ South Africa □ Australia/N.Z.
Support Services Available:
In the proof of the propert in the proof of the proof in the pro
Additional Support Information and Pricing: ECOM comprehensive maintenance program available. Call for details and current pricing.  CUSTOMER TRAINING/DOCUMENTATION
Training Available: At ECOM or by special arrangement Price: \$400.00 per day plus travel
Documentation Available: Comprehensive manual supplied with program.
Documentation Available in other languages:
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:
ADDITIONAL INFORMATION
This program is also currently marketed on the HP-9845; ECOM Programs are in use in 500 engineering firms around the world.
HP-85 I/O ROM and/or Matrix ROMS may cause memory overflow errors; do not run with I/O or Matrix in place.
RESPONSIBILITIES STATEMENT

## **HP USE ONLY**

I.D. Code: 10052

Application Code: 14.31011

**Expiration Date:** 

Product Name:

SAP-2D

Mainframe(s):

HP-85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

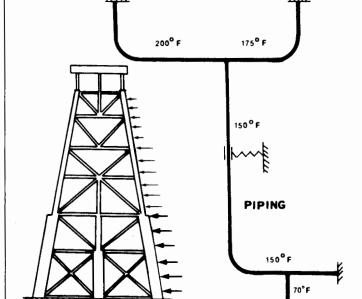
SAP-2D is a single computer program for the static analysis of planar trusses, frames or grids.

### IDEAL FOR WIDE RANGE OF APPLICATIONS

- o Element library includes straight or curved members, tapered or uniform members or grounded elastic springs.
- o Loadings can be any combination of point forces, torques, running loads, thermal loads, prescribed displacements or lack-of-fit.

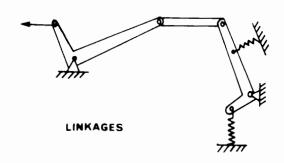
### DESIGNED FOR USER CONVENIENCE

- o Modifications or corrections can be made selectively using the edit module which permits all changes to be made in an interactive, conversational mode.
- Joint-by-joint and global equilibrium checks give automatic verification of results.
- Graphical plot of geometry for easy verification of input.
   Tabular or graphical axial;
- o Tabular or graphical axial, bending moment and shear diagrams for each member simplifies interpretation of results.



### OTHER FEATURES

- o Skewed reactions.
- o Substructuring via special user defined member.
- o Storage of input data in a file for archival purposes or for subsequent alteration and rerun.
- o Geometry or loading conditions can be modified using the edit module and the problem rerun-



Retail Price: \$895.00

OFF-SHORE PLATFORM

Company Name: Advanced Structural Technology Contacts: Karen Oga

Inc.

Address: P.O. Box 16659, Clayton, Missouri 63105

Telephone: 314-725-8282

SYSTEM REQUIR	REMENTS				
Computer Model:		Peripherals:			
Memory:	16K Memory Module Matrix Rom				
Operating System:					
Other Software:					
CUSTOMER SUP	PORT				
Geographic Area S	Supported:				
□ Worldwide	Canada	Europe (all)	☐ Far East (all)		
☐ East	) :: Mexico ::: Latin America (all)				
☐ South		3			
U Midwest □ West	) E Mexico Latin America (all)	South Africa	Australia/N.Z.		
			, , , , , , , , , , , , , , , , , , ,		
Support Services A					
x on-site consulti	rt ⊠ mail-in sup ng □ on-site sys	port tems engineers	∷ remote dial-in ∴ program modification		
	t Information and Pricing:				
CUSTOMER TRA	INING/DOCUMENTATION				
Training Available:			Price:		
Documentation Av	ailable: 190 page user':	s manual*	Price:		
Documentation Av	ailable in other languages:				
NUMBER OF INS	STALLATIONS:	DATE OF FIRST	T INSTALLATION:		
ADDITIONAL INI	FORMATION				
* Manual may be purchsed separately for evaluation purposes for $\$50.00$ with the price credited towards the license fee.					
Disc based version will available soon.					
RESPONSIBILITIE	S STATEMENT				

HP USE ONLY

I.D. Code: 10078

Application Code: 14.31012

Expiration Date:

Product Name:

Mainframe(s):

ODGAS - Numerical Gas Well Simulator

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

ODGAS solves the partial differential equation for one-dimensional, radial, single-phase flow of a real gas in porous media

$$\frac{\partial}{\partial x} \left( k_{\mathbf{x}} \frac{\partial \psi}{\partial x} \right) = r_{\mathbf{w}}^{2} e^{2\mathbf{x}} \phi \mu^{\mathbf{C}} \frac{\partial \psi}{\partial t}$$

where

$$\Psi = 2 \int_{p^{\bullet}}^{p} \frac{P}{\mu z} dP$$

The program is used to analyze gas well production data (either flow test or long term production data) and to predict future performance of a well at a given flowing surface pressure.

### **FEATURES**

- \* Program has the capability of simulating wellbore damage, hydraulic fracture and wellbore storage effects
- \* Well boundary condition options are surface rate, surface pressure or sandface pressure
- \* Maximum rate limitation can be specified for prediction runs
- \* Gas properties are calculated internally in the program based on gas gravity, pressure and temperature
- \* Flowing pressure gradients in the wellbore are integrated into the solution

Retail Price:

\$950.00

Company Name: Aries Energy Services

Contacts: Dan Stright

Address:

602 Park Point Dr. #133 Golden, Colorado 80401

Telephone:

(303) 526-1786

SYSTEM REQUIREMENTS						
Computer Model:	HP - 85A	Peripheral	s:			
Memory:	16K Memory Module					
Operating System:						
Other Software:						
CUSTOMER SUPPO	DRT					
Geographic Area Sup	pported:					
☐ Worldwide  ☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West		[.]	Far East (all)			
Support Services Ava						
3 phone in support	⊠ mail-in suppo □ on-site systen	rt ns engineers	☐ remote dial-in ☐ program modification			
Additional Support In	nformation and Pricing:					
	Modifications available	at additional cost.				
CUSTOMER TRAIN	ING/DOCUMENTATION					
Training Available:	upon request		Price:			
Documentation Available: Manual supplied with program Price:			Price:			
Documentation Avail	able in other languages:					
NUMBER OF INST	ALLATIONS:	DATE OF FIRST INSTAL	LATION:			
ADDITIONAL INFORMATION						
,						
RESPONSIBILITIES	STATEMENT eveloped by an independent softwar	re supplier for operation on HP	equipment. The supplier is solely			

HP USE ONLY

I.D. Code:

Application Code: 15.11001 Expiration Date: 1/ 1/ 83

Product Name:

Mainframe(s):

GES/1000 - General Earthworks System

**HP 1000** 

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

GES/1000 is a set of HP 1000 programs which may be easily utilized by an engineer in determining the cut and fill volumes of earth. Using elevation data entered via digitizer or terminal keyboard for various "stations" (cross-sections), the engineer can effectively create a three-dimensional set of points describing the current natural terrain or proposed terrain. While data points are being digitized they are displayed for verification and may be edited prior to "capture" by the system. After terrain points have been "captured", mass changes in elevation values may be entered for a range of stations or offset points, thus allowing the engineer to balance cut and fill values as needed. The system also checks for gross errors in data input as a further, means to ensure correctness of the calculations.

Retail Price:

\$3,800

Company Name:

Associates II, Inc.

9230 Markville

Address:

Suite C

Dallas, Texas 75243

Telephone:

214-235-5992

Contacts:

Kenneth Penrod,

President

SYSTEM REQUIRE	MENTS				
Computer Model:	HP 1000	Peripherals:	9874 Digitizer		
Memory:	16 Page Partition		2647 Terminal		
Operating System:	RTE-IVA or RTE-IVB		2631 Printer		
Other Software:					
CUSTOMER SUPP	ORT				
Geographic Area Su	pported:				
<ul><li>☐ Worldwide</li><li>☐ U.S. (all regions)</li></ul>	☐ Canada ☐ Europe (all) ☐ Mexico ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		Far East (all)		
Support Services Av					
☐ phone-in support☐ on-site consulting			remote dial-in program modification		
Additional Support	nformation and Pricing:				
On site installa	ation available at \$500/Day + Expenses				
CUSTOMER TRAIN	NING/DOCUMENTATION				
Training Available:	Yes	Prid	ce: \$500/Day + Expenses		
Documentation Avai	ilable: Yes	Prid	e: Included		
Documentation Available in other languages: English					
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:					
ADDITIONAL INF	ORMATION				

## RESPONSIBILITIES STATEMENT

HP USE ONLY

I.D. Code:

Application Code: 15.11002

**Expiration Date:** 

Product Name: Mainframe(s): 1000 Survey/Design Package for Civil Engineers A700

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

COMPLETE SURVEY/DESIGN PACKAGE FOR CIVIL ENGINEERS: INCLUDES THREE SUBPACKAGES:

- Survey data entry, reduction and 3-D least-squares network (1)adjustment (NBOOK/ADJST)
- (2) Coordinate geometry (COGO)
- (3) Computer aided drafting (DPLT)

Multiuser interactive, menu-driven routines; self-teaching HELP commands for all user operations; ten thousand 3-D points/job; ten character names; point recall by name or number; header data and time accounting for each job; directory for all jobs entered into system.

SURVEY DATA ENTRY/REDUCTION/ADJUSTMENT FEATURES:

Form mode data entry; automatic error detection; full edit capability; correction for refraction and earth curvature; reduction to preselected datum elevation; unique 3-D leastsquares network adjustment incorporating horizontal/vertical control points; automatic gross error detection.

### COORDINATE GEOMETRY FEATURES:

Full complement of point utility routines including keyboard coordinate entry, edit, delete, list, renumber, copy and point status; automatic mixed mode direction/angle input; circular curve design and list; area calculations; line-line, line-arc, arc-arc intersections; intersection offset; perpendicular distance; resection; tanslate, rotate and scale; sequential station and construction staking.

## COMPUTER AIDED DRAFTING FEATURES:

Variable and fixed scale or overlay plots with grid system, north arrow, scale and title block; line style and color selectable drafting of points, traverses, areas and route centerline; automatic labelling of traverse segments and circular curves.

Retail Price:

NBOOK/ADJST \$5,000.00; COGO \$3,000.00; DPLT \$2,000.00

Company Name: NICHOLS ASSOCIATES, INC.

Contacts:

Address:

P. O. Box 2327

David T. Purvance

Telephone:

770 Horizon Drive

Grand Junction, Colorado 81501

303/243-8975

SYSTEM REQUIREM	ENTS			
Computer Model: HF-1000 Peripherals: HP-7580A plot				
Memory: 256 kbyte	e	2608A	, 2631G or alent printer	
Operating System: R	TE IVB	ec.u.v.	rent printer	
Other Software: Non	ne			
CUSTOMER SUPPOR	RT			
Geographic Area Suppo				
☐ Worldwide ☐ U.S. (all regions)	⊡ Canada ⊡ Mexico	□ Europe (all)	☐ Far East (all)	
X East □ X South	Latin America (all)			
፟ Midwest ፟ West	<u> </u>	□	☐	
Support Services Availa		_ <b>00</b> 4	i //doctana/14.2.	
	☐ mail-in suppo 丞 on-site syster	ort ns engineers	☐ remote dial-in  X program modification	
Additional Support Info	ormation and Pricing:			
	IG/DOCUMENTATION			
Training Available:	on-site training		Price: \$500.00/day	
Documentation Available: User Manual			Price:	
Documentation Available in other languages: No				
NUMBER OF INSTAL	.LATIONS:	DATE OF FIRST INSTA	LLATION:	
ADDITIONAL INFORMATION				

### RESPONSIBILITIES STATEMENT

# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 15.21001

**Expiration Date:** 

PRODUCT NAME

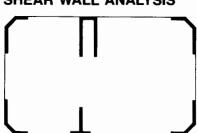
SA-1/45 Shear Wall Analysis

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

## SA-1 SHEAR WALL ANALYSIS



Analyzes structures supported by shear walls for wind and seismic loads. The shears and moments are evaluated for the structure and for each wall element in each direction at every floor level. Seismic forces are determined using the provisions of the Uniform Building Code.

### Input

Seismic Data
Floor Heights and
Weights
Loads
Wall Element
Configurations
Location of Walls

### Output

Shear and Moment to Each Floor Load Eccentricities Shears and Moments to Each Wall Element

RETAIL PRICE:

\$1050

COMPANY NAME:

**ECOM** Associates

CONTACTS:

Curt Miller, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

Gary Koser, P.E.

SYSTEM REQUIREMENTS		
Computer Model: 9845 B	, OPT.150 Peripherals:	
Memory: 187 K		
Operating System:		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
	Europe (all)  a (all)  South Africa	
Support Services Available:		
XX phone-in support	<b>XX</b> mail-in support □ on-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Information and Price	cing:	
CUSTOMER TRAINING/DOCUMEN	ITATION	
Training Available: YES		Price: Call in for quote
Documentation Available:		Price:
Documentation Available in other langu	ages:	
NUMBER OF INSTALLATIONS:	6 DATE OF FIRST INSTA	ALLATION: 9/1/80
ADDITIONAL INFORMATION		
RESPONSIBILITIES STATEMENT		
responsible for its software and support ser	pendent software supplier for operation on HP co rvices. HP is not the manufacturer or co-developer of varranties, express or implied, with respect to this	f such software or support. HP disclaims

information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.

## **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 15.21002

Expiration Date:

PRODUCT NAME

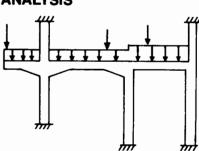
FA-1/45 Continuous Frame Analysis

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

## **CONTINUOUS FRAME ANALYSIS**



Solves for critical shears and moments in multiple-span continuous beams of a single level with or without columns above and below the level. Equivalent column stiffness is used to account for torsional flexibility of span-to-column connections. Spans and columns may have variable section. Cantilevered members and loads may be input at either or both ends. Loads may be concentrated and uniform (full or partial length). Loads can include live and dead portions.

### Input

Frame Geometry Stiffness Data Loads Joint Moments

### Output

End Moments Inflection Points Maximum Positive Moments Shears at Specified **Points** 

RETAIL PRICE:

\$800

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

	SYSTEM REQUIREMENTS				
	Computer Model:	9845 B, OPT.150 Peripherals	<b>:</b> :		
	Memory:	187 K			
	Operating System:				
	Other Software:				
L					
	CUSTOMER SUPPORT				
	☐ U.S. (all regions) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	Canada 🔲 Europe (all)			
	Support Services Available	); ;			
	■ phone-in support □ on-site consulting		☐ remote dial-in☐ program modification		
	Additional Support Informa	, ,	2 program modification		
┝	CUSTOMER TRAINING	/DOCUMENTATION			
	Training Available:	YES	Price: Call in for quote		
	Documentation Available:		Price:		
	Documentation Available in	n other languages:			
	NUMBER OF INSTALLA	ATIONS: 80 DATE OF FIRST I	NSTALLATION: 9/1/79		
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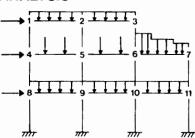
FA-2/45 Multi-story Frame Analysis



MAINFRAME(S) 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

## FA-2 **MULTI STORY FRAME ANALYSIS**



Determines moments in members for a planar multi-story frame. The beam shears, the loads in the columns and the lateral displacements are calculated. All members must be vertical or horizontal and may be nonprismatic. Moments and vertical loads may be added to any joint in addition to those imposed by the beam loads. Lateral loads may be applied to any level. Load combinations can be created from the basic load cases. Output data can be accessed directly by the reinforced concrete beam and column and steel column design programs.

### Input

Frame Geometry Support Conditions Member Properties Vertical and Lateral Loads Load Combinations

### Output

Frame Geometry Plot End Moments of All Members Maximum Positive Moments for Beams Beam Shears Column Loads Lateral Deflections

RETAIL PRICE: \$1100

**ECOM Associates** COMPANY NAME:

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wisconsin 53223

TELEPHONE:

414 354-0243

SYSTEM REQUIREMENTS					
Computer Model:	9845 B, OPT.150	Peripherals:			
Memory: 187	К				
Operating System:					
Other Software		<b>&gt;</b>			
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CUSTOMER SUPP	ORT	te ;			
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□ U.S. (all regions)		□ Europe (all) □			
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Support Services Avai		n support	☐ remote dial-in		
on-site consulting		e systems engineers	□ program modification		
Additional Support Inf	formation and Pricing:				
CUSTOMER TRAIN	IING/DOCUMENTATION	N			
Training Available:	YES		Price: Call in for quote		
Documentation Availal	ble:		Price:		
Documentation Availa	ble in other languages:				
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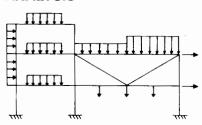
FA-3/45 General Frame Analysis

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

# FA-3 GENERAL FRAME ANALYSIS



Determines critical moments, shears, axial loads, and the displacements at all joints for a plane frame of any configuration. Initial axial displacements are allowed in order to evaluate the effects of settlements, member shrinkage, or member temperature change. Members may have variable section. Members may have uniform (full or partial length) or concentrated loads.

### Input

Frame Geometry
Support Conditions
Member Properties
Loads and Axial Initial
Displacements
Load Combinations

### Output

Joint Displacements and Rotations Member Forces and Reactions Maximum Moments

RETAIL PRICE:

\$1400

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

SYSTEM REQUIREMENTS				
Computer Model: 9845 B, OPT.150	Peripherals:			
Memory: 187 K				
Operating System:				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
<b>XX</b> Worldwide ☐ Canada ☐ U.S. (all regions) ☐ Mexico	☐ Europe (all) ☐	□ Far East (all) □		
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Support Services Available:				
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Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
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Documentation Available in other languages:				
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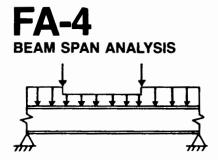
**Expiration Date:** 

PRODUCT NAME

FA-4/45 Beam Span Analysis

MAINFRAME(S) 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)



Calculates shears, moments, and deflections for a beam span including (a) simply supported beam with or without cantilevers or (b) spans of a continuous frame using data from the Continuous Frame Program. Data may be obtained for cantilevers, if any. End moments may be input. Variable sections can be considered. If the material is reinforced concrete, calculations can be based on effective moment of inertia.

Input

Span Data Cantilever Data (if any) Loads End Moments (if any)

Output

End Moments and Shears Inflection Points Shear, Moment, and Deflection at specified points.

RETAIL PRICE: \$525

COMPANY NAME: ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

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5678 West Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

SYSTEM REQUIREMENTS			
Computer Model: 9845 B	, OPT.150	Peripherals:	
Memory: 187 K			
Operating System:			
Other Software:			
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CUSTOMER SUPPORT			
Geographic Area Supported:			
<b>XX</b> Worldwide ☐ Canad☐ U.S. (all regions) ☐ Mexico		urope (all)	□ Far East (all) □
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☐ Midwest ☐ _			
☐ West ☐	D Sc	outh Africa	□ Australia/N.Z.
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CUSTOMER TRAINING/DOC	UMENTATION		
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Documentation Available in other	r languages:		
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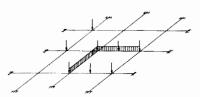
FA-7/45 Space Frame Analysis

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### FA-7 SPACE FRAME ANALYSIS



Analyzes 3-Dimensional Frames. The structure may consist of variable members of differing materials and properties. Members may have uniform (full or partial length) and concentrated loads as well as joint displacements. As with other ECOM programs, this interactive program provides extensive input checking and verification to ensure correct data. Plots of input and deformed geometry and input by digitizing are also available.

#### Input

Joint Coordinates Support Data Member Materials and Properties Member Connection Data Loads on Members or Joints Initial Joint Displacements

#### Output

Joint Displacements and Rotations Joint Reactions Member End Actions Support Reactions

RETAIL PRICE:

\$3500

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E. Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREMENTS	
Computer Model: 9845 B, OPT.150	Peripherals: 9885 M HP-IB Cable 98034 A
Memory: 187 K	(98855 Optional)
Operating System:	(7906 Optional)
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ US (all regions) □ Mexico □ East □ Latin America (all) □ South □ □ □ Midwest □ □ □ West	Europe (all)    Far East (all)
Support Services Available:     ■ phone-in support	□ remote dial-in
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Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: YES	Price: Call in for quote
Documentation Available.	Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 10	DATE OF FIRST INSTALLATION: 9/1/80
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Application Code: 15.21007

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PRODUCT NAME

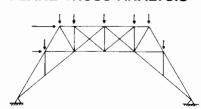
TA-1/45 Truss Analysis

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

# TA-1 PLANE TRUSS ANALYSIS



Analyzes statically determinate and indeterminate plane trusses. The structure is assumed to consist of prismatic members which carry only axial forces connected at pinned joints.

#### Input

Truss Geometry
Support Conditions
Member Properties
Loads

#### Output

Joint Displacements Member Forces and Stresses Reactions

RETAIL PRICE:

\$1200

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 West Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREMENTS	
Computer Model: 9845 B, OPT.150 Peripherals:	
Memory: 187 K	
Operating System:	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide ☐ Canada ☐ Europe (all) ☐ U.S. (all regions) ☐ Mexico ☐ ☐	☐ Far East (all)
☐ East ☐ Latin America (all) ☐	
☐ South ☐ ☐ Midwest ☐	
□ West □ □ South Africa	□ Australia/N.Z.
Support Services Available:	
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Additional Support Information and Pricing:	
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Training Available: YES	Price: Call in for quote
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PRODUCT NAME

DA-1/45 Dynamic Load Analysis



MAINFRAME(S) 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)





Determines natural frequencies of vibration, characteristic mode shapes, and modal participation factors for a multi-degree elastic system with lumped masses (Frequency Analysis). The dynamic response of any portion of the system to a given acceleration spectrum may then be determined using the modal method of analysis (Modal Analysis).

#### Input

Accelerations Lumped Masses Number of Modes Flexibility or Stiffness Matrix Unit Load Value of Response

#### Output

Frequency Analysis, Circular Natural Frequency, and Period for Each Mode Modal Shape Values Modal Participation Factor General Forcing Factor Response Component for Each Mode Modal Responses (Vector and Absolute Sum)

RETAIL PRICE:

\$700

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

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SYSTEM REQUIREMENTS			
Computer Model: 9845 B,	OPT.150	Peripherals:	
Memory: 187 K			
Operating System:			
Other Software:	WHO I	<b>3</b>	
CUSTOMER SUPPORT			
Geographic Area Supported:			
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Support Services Available:   **EX***  **Phone-in support**	XX mail-in sur	nnort	☐ remote dial-in
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PRODUCT NAME

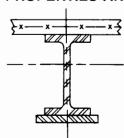
GS-1/45 General Section Properties

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

# GS-1 GENERAL SECTION PROPERTIES ANALYSIS



Determines the properties of irregularly shaped sections, area elements, line elements, and concrete elements. Gross, uncracked transformed, and cracked section properties for normal or lightweight concrete are calculated for reinforced concrete sections. Effective moments of inertia can also be obtained for an applied moment.

#### Input

Element Type
Element Dimensions
or Properties

#### Output

Area or Lengths Moments of Inertia Centroidal Location Radius of Gyration Section Moduli Product of Inertia

RETAIL PRICE:

\$400

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREMENTS		
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Memory: 187 K		
Operating System:		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported.		
<b>XX</b> Worldwide ☐ Cand ☐ U.S. (all regions) ☐ Mex	- 1 , , ,	, ,
☐ East ☐ Latir	America (all)	
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☐ West ☐	□ South Africa	☐ Australia/N.Z.
Support Services Available		
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Additional Support Information	and Pricing.	
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NUMBER OF INICIAL LATIC	DATE OF FIRST	INICTALL ATION.
NUMBER OF INSTALLATIO	DNS: 80 DATE OF FIRST	9/1/79
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PRODUCT NAME

SD-1/45 Steel Beam Design

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### SD-1 STEEL BEAM DESIGN



Designs or checks steel W, S and C sections subjected to loads and end moments. The program selects the lightest sections for each of several section depths. A check routine allows the designer an opportunity to check a section. The ratio of the actual working load shear stress to the AISC allowable shear stress is also calculated. Solutions do not include biaxial bending problems. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual.

#### Input

Loads and End Moments Material Properties Bracing Points Section Type Nominal Depth

#### Output

Lightest Section
Moment Capacity
Shear Stress Ratio
End Reactions
Maximum Moments
Centerline and
Cantilever
Deflections

RETAIL PRICE:

\$450

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

Gary Koser, P.E.

SYSTEM REQUIREMENTS	
Computer Model: 9845 B,OPT.150 Peripherals:	
Memory: 187 K	
Operating System:	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Wax Worldwide ☐ Canada ☐ Europe (all) ☐ U.S. (all regions) ☐ Mexico ☐ ☐ ☐ ☐	☐ Far East (all)
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<b>XX</b> phone-in support	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>
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CUSTOMER TRAINING/DOCUMENTATION	
Training Available: YES	Price: Call in for quote
Documentation Available:	Price:
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NUMBER OF INSTALLATIONS: 80 DATE OF FIRST INS	STALLATION: 9/1/79
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PRODUCT NAME

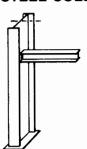
SD-2/45 Steel Column and Base Plate Design

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### SD-2 STEEL COLUMN DESIGN



Designs or checks wide flange, tube or pipe steel sections subjected to axial loads with or without bending moments applied about axes of the column. The moments can be applied to either or both ends of the column. The program selects the lightest section for a specified depth. "Pinended column" base plates can also be designed. Base plate dimensions can be established for special "built-up" column shapes. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual.

#### input

Material Properties Bracing Conditions Axial Loads Moments Nominal Depth

#### Output

Lightest Section
AISC Interaction
Equation Results
Base Plate Data

RETAIL PRICE:

\$550

COMPANY NAME:

**ECOM Associates** 

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREMEN	TS			
Computer Model:	9845 B, OPT.150	Peripherals:		
Memory: 187 K				
Operating System:				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported	d:			
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Additional Support Informat	tion and Pricing:			
CUSTOMER TRAINING/	DOCUMENTATION			
Training Available:			Price: Call in fam guata	
Training Available.	YES		Price: Call in for quote	
Documentation Available:			Price:	
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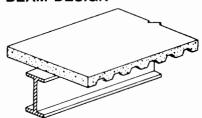
SD-3/45 Composite Steel Design

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### COMPOSITE STEEL **BEAM DESIGN**



Designs or checks simple span beams of composite steel and concrete construction. Loads may be concentrated or uniform (full or partial length). No provision is made for continuity or end moments. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual. Any steel strength can be considered. All calculations are made in accordance with the AISC specifications.

#### Input

Overall Slab Thickness Depth of Metal Deck Concrete Strength Modular Ratio Beam Spacing Shored or Unshored Data Span Length Loads Nominal Depth of Beam Shear Connector Capacity

#### Output

Selected Beam Section Reactions Maximum Moment and Location Stresses (Bending and Web Shear) Midspan Deflection Shear Connector Data

RETAIL PRICE:

\$700

COMPANY NAME:

**ECOM** Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREMENTS				
Computer Model: 9845 B, OPT.150 Peripherals:				
Memory: 187 K				
Operating System.				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
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□ Midwest □ □ □				
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Support Services Available:				
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Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: YES	Price Call in for quote.			
Documentation Available:	Price:			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 80 DATE OF FIRST INSTALLATION: 9/1/79				
ADDITIONAL INFORMATION				
RESPONSIBILITIES STATEMENT				
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HP USE ONLY

I.D. Code:

Application Code: 15.21013

**Expiration Date:** 

PRODUCT NAME

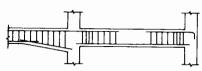
CD-1/45 Concrete Beam Design

MAINFRAME(S)

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### REINFORCED CONCRETE **BEAM DESIGN**



Designs reinforced concrete beams by either the ultimate strength or working stress method of ACI 318-77. Flexural reinforcement requirements are given for rectangular, tee, or ledger beam sections. Cutoff locations are given for the various bar sizes that the designer may choose to use. The end sections and midspan section may be of different size.

#### Input

Material Properties Design Method Cross-Section Dimensions Stirrup Size Loads

#### Output

Reinforcement Areas Bar Cutoff Data Stirrup Spacing **Design Moments** Inflection Points

RETAIL PRICE: \$850

COMPANY NAME: ECOM Associates

CONTACTS: Curt Miller, P.E.

Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIREM	MENTS		
Computer Model:	9845 B, OPT.150	Peripherals:	
Memory: 187 K			
Operating System:			
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Supp			
<b>XX</b> Worldwide ☐ U.S. (all regions)	☐ Canada ☐ Mexico	☐ Europe (all)	☐ Far East (all)
□ East	☐ Latin America (all)		
<ul><li>☐ South</li><li>☐ Midwest</li></ul>	O		
☐ West	O	☐ South Africa	☐ Australia/N.Z.
Support Services Avail	able:		
phone-in support on-site consulting	<b>XX</b> mail-in sup <sub>l</sub> □ on-site sys		☐ remote dial-in ☐ program modification
Additional Support Info	ormation and Pricing:		
CUSTOMER TRAINI	NG/DOCUMENTATION		
			Des Call in for quoto
Training Available:	YES		Price: Call in for quote
Documentation Availab	le:		Price:
Documentation Availab	le in other languages:		
NUMBER OF INSTA	LLATIONS: 80	DATE OF FIRST INSTA	LLATION: 9/1/79
ADDITIONAL INFOR	RMATION		
RESPONSIBILITIES S'	TATEMENT		
			nputer systems. The supplier is solely such software or support. HP disclaims

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HP USE ONLY

I.D. Code:

Application Code: 15.21014

**Expiration Date:** 

PRODUCT NAME

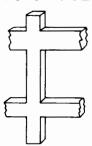
CD-2/45 Concrete Column Design



MAINFRAME(S) 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

# REINFORCED CONCRETE **COLUMN DESIGN**



Designs or checks the capacity of a reinforced concrete column in accordance with ACI 318-77 with bending in either or both directions. Slenderness effects are evaluated according to the moment magnification method in accordance with Section 10.11 of the ACI Code. Slenderness ratio limited to 100 or less. Cross-sections include rectangular (tied), round (spiral or tied), and square with circular bar arrangement (spiral or tied). No provision has been made for lateral loads applied between ends.

#### Input

Material Properties Design Method Loads and Moments Unsupported Length Cross-Section Effective Length

#### Output

Reinforcement Data Allowable Load and Moment Moment Magnification Factor Spiral Size and Pitch Eccentricities

RETAIL PRICE:

\$800

COMPANY NAME:

**ECOM** Associates

Curt Miller, P.E. Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

CONTACTS:

SYSTEM REQUIREMENTS	
Computer Model: 9845 B, OPT.150 Peripherals:	
Memory: 187 K	
Operating System:	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
XXWorldwide	
XXphone-in support XX mail-in support	□ remote dial-in
□ on-site consulting □ on-site systems engineers	□ program modification
Additional Support Information and Pricing:	
·	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: YES	Price: Call in for quote
Documentation Available:	Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 80 DATE OF FIRST INSTA	ALLATION: 9/1/79
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	
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HP USE ONLY
I.D. Code:
Application Code:

Application Code: 15.21015 Expiration Date:

PRODUCT NAME

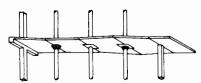
CD-3/45 Flat Slab Analysis and Design

MAINFRAME(S)

9845

**PRODUCT DESCRIPTION:** (basic product information, user-specific details, major features & benefits, etc.)

CD-3
FLAT SLAB ANALYSIS
AND DESIGN



Analyzes and designs flat slab or waffle slab floors in accordance with ACI 318-77. Flat slabs may have drop panels at columns. Columns may have capitals. Either the ultimate strength or the working stress method may be used. Design is for a one-bay wide strip using the equivalent frame analysis method and may be up to 10 spans. The strip may have cantilevers. No beams parallel to the direction of moments are permitted.

Input

Spans and Bay Width Strip Configuration Material Properties Loads Design Method Output

Joint Moments and Shears Design Forces Shear Stresses Reinforcement Data Material Quantities

RETAIL PRICE: \$1150

COMPANY NAME: ECOM Associates

CONTACTS: Curt Miller, P.E. Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd.

Milwaukee, Wisconsin 53223

TELEPHONE:

414-354-0243

SYSTEM REQUI	REMENTS			
Computer Model:	9845 B, OPT	.150	Peripherals:	
Memory:	187 K			
Operating System:				
Other Software:				
CUSTOMER SUI	PPORT			
Geographic Area S	supported:			
□ Worldwide     □ U.S. (all regions     □ East     □ South     □ Midwest     □ West      Support Services A	Mexico Latin Americ			
□ <b>X</b> phone-in suppo	ort			□ remote dial-in
☐ on-site consultin	ng	□ on-site systems en	gineers	□ program modification
CUSTOMER TRA	Information and Price			
Training Available:	YES			Price: Call in for quote
Documentation Ava	ailable:			Price:
Documentation Ava	ailable in other langu	ages:		
NUMBER OF INS	STALLATIONS:	80 DA	TE OF FIRST INSTA	LLATION: 9/1/79
ADDITIONAL INF	FORMATION			
RESPONSIBILITIE				
				nputer systems. The supplier is solely

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HP USE ONLY

I.D. Code:

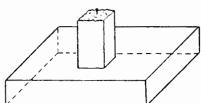
Application Code: 15.21016

**Expiration Date:** 

PRODUCT NAME CD-4/45 Footing Design MAINFRAME(S) 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)





Designs or checks an isolated column footing for dimensions, steel requirements, and quantities. Factors are included for wind or earthquake load conditions. Also included is a check and design for horizontal keys to resist sliding.

#### Input

Vertical and Horizontal Loads Design Moment Column Dimensions Material Properties Allowable Soil Pressure Horizontal Key Design Initial Footing **Dimensions** Surcharge Loads (if any) Column Offset (if any)

#### Output

Footing Dimensions Shear Stresses Reinforcing Details Material Quantities Design Moments

RETAIL PRICE:

\$850

COMPANY NAME:

ECOM Associates

CONTACTS:

Curt Miller, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

414 354-0243

Gary Koser, P.E.

SYSTEM REQUIREM	MENTS		
Computer Model:	9845 B, OPT.15	Peripherals	). ).
Memory: 187 F	K		
Operating System:			
Other Software:			
		`	
CUSTOMER-SUPPO	ORT		
Geographic Area Supp			<b>-5</b> -5 -4 -4 -10
■ U.S. (all regions) ■ East ■ South ■ Midwest ■ West	□ Canada □ Mexico □ Latin America (all) □ □ □ □ □ □		
Support Services Avail-	able:		
	<b>⊠</b> mail-in s □ on-site s		<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Info	ormation and Pricing:		
	, and the second		
	ING/DOCUMENTATION		
Training Available	YES		Price: Call in for quote
Documentation Availab	ole.		Price:
Documentation Availab	ole in other languages:		
NUMBER OF INSTA	ALLATIONS: 80	DATE OF FIRST	INSTALLATION: 9/1/79
ADDITIONAL INFOR	RMATION		
RESPONSIBILITIES S		word available for according	HD computes quaters. The second is select
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Application Code: 15.21017

**Expiration Date:** 

PRODUCT NAME

MAINFRAME(S)

PD-1/45 Prestressed Concrete Beam Analysis and Design

9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)



Analyzes and designs pretensioned, simply-supported concrete beams with cantilevers according to ACI 318-77. The constant cross-section may be composite. Portions of strands may be slipped. Strands may have depression points. Mild steel reinforcement at release is displayed, if required. Given a stranding, the flexural and shear stresses, moment capacity, web reinforcement, and deflection are calculated.

#### Input

Material Properties
Section Data
Span Length
Loads
Prestress Data
Mild Steel
Reinforcement
(if any)
Prestress Loss (if any)

#### Output

Reactions and Moments Stresses Loss of Prestress Reinforcing Details Deflections Ultimate Moments for Critical Section

RETAIL PRICE:

\$1200

COMPANY NAME:

ECOM Associates

CONTACTSCurt Miller, P.E. Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

	SYSTEM REQUIREMENTS	
	Computer Model: 9845 B, OPT.150 Peripherals	3
	Memory: 187 K	
	Operating System:	
	Other Software:	
		1
	CUSTOMER SUPPORT	
	Geographic Area Supported:	
	<b>XX</b> Worldwide ☐ Canada ☐ Europe (all) ☐ U.S. (all regions) ☐ Mexico ☐	• /
	☐ East ☐ Latin America (all) ☐ ☐ South ☐ ☐	
	☐ Midwest ☐ ☐	
	☐ West ☐ ☐ South Africa	☐ Australia/N.Z.
	Support Services Available:	
	phone-in support on-site consulting  mail-in support on-site systems engineers	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>
	Additional Support Information and Pricing:	
_	CUSTOMER TRAINING/DOCUMENTATION	
		Call in for quote
	Training Available: YES	Price: Call in for quote
	Documentation Available:	Price:
	Documentation Available in other languages:	
	NUMBER OF INSTALLATIONS: 80 DATE OF FIRST I	INSTALLATION: 9/1/79
	ADDITIONAL INFORMATION	
	RESPONSIBILITIES STATEMENT	
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HP USE ONLY

I.D. Code:

Application Code: 15,21018

**Expiration Date:** 

PRODUCT NAME

GFD-I (GRAVITY FRAME DESIGN-I)

MAINFRAME(S)

9845 T

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The GFD-I program provides designers with prelimanary steel sections for components in a gravity-load carrying structural framework. These components include the roof and floor beams and girders in composite or non-composite design, colums and steel floor and roof deck sections.

The program selects each component on a piece by piece basis. An individual member supporting secondary framing may be designed by identifying the point loads applied. Alternatively, the user may elect to identify the interconnection of members in which case their reactions will be considered during individual member selection and in running down column loads. In this way the program may be utilized to design individual members, a single floor bay, a complete floor layout or an entire multistorey building.

Members are selected individually based on local loading, loads from attached members. physical constraints and the specified design parameters. The selection of the actual beam or girder section is based on strength criteria and live load deflection. Column selection is based on strength and stability considerations. User defined or defaulted physical constraints such as section shape and size may also influence the beam or column sections selection process.

Beam and column sections are selected from a data base of Canadian Wide Flange (W), Welded Wide Flange (WWF), S shapes (S), M shapes (M), Channels (C), Hollow Structural Sections (HSS), Built-up H (BH), and Built-up box (BB) sections.

#### Design Standard

The program is based on the limit States Design (LSD) philosophy as prescribed by the National Standard of Canada CAN-S16. 1-M78, "Steel Structures for Buildings -Limit States Design" with the National Building Code of Canada (NBCC 1980) provisions regarding the reduction of live load.

#### Units

Metric units to the International System of Units (SI), are used exclusively in GFD-I

RETAIL PRICE: \$275,00 (Program cartridges, add \$85. Disc, no additional)

(Foreign surcharges - USA add \$50 - other countries add \$100)

COMPANY NAME: Canadian Institute of Steel Const. CONTACTS: D. MacKinnon

201 Consumers Road, Suite 300

E. Chien

ADDRESS: Willowdale, Ontario, Canada M2J4G8

TELEPHONE: 416-491-4552

SYSTEM REQUIREMENTS		
Computer Model: 9845 T Peripherals: 9	885 M or 9895 M (preferred)	
Memory: 187 K		
Operating System: I/O ROM, Two Tape Cartridges (minimum)		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
□ Worldwide □ Canada □ Europe (all)   ▼ U.S. (all regions) □ Mexico □   □ East □ Latin America (all) □   □ South □ □   □ Midwest □ □   □ West □ □   □ X South Africa		
Support Services Available:		
	□ remote dial-in	
Additional Support Information and Pricing: Program modification available, price quoted		
CUSTOMER TRAINING/DOCUMENTATION		
Training Available: Toronto Office only	Price: No charge	
Documentation Available Software manual included	Price: Included	
Documentation Available in other languages: English only		
NUMBER OF INSTALLATIONS: 6 DATE OF FIRST INS	TALLATION: Nov 1980	
ADDITIONAL INFORMATION  GSD-II in production. Advanced program, including stub-girder construction. Available Spring 1982	g trusses and	
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HP USE ONLY

I.D. Code:

Application Code: 15.21019

**Expiration Date:** 

PRODUCT NAME

STRAAD

MAINFRAME(S)

HP 9845

**HP 1000** 

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

## STRAAD

# **STRuctural Analysis And Design**

STRAAD (STRuctural Analysis And Design) is a versatile and comprehensive program written specifically for use on mini computers. The program can be used to perform the analysis and steel design of Space Frames or it can be used to simply analyze Space Frames, Space Trusses, Plane Frames, Plane Trusses or Grid Networks.

STRAAD is interactive in nature and makes use of extensive input checking and verification routines. Powerful graphics routines for both input checking and for examining deformed geometry are provided.

#### **TYPICAL**

#### **INPUT**

Joint Coordinates Support Data Member Material Member Properties. Wide Flange Section or Member Dimensions Member Connection Data Column Effective Lengths Beam Unbraced Lengths Load Reduction Factors for Each Load Case Loads on Members or Joints Joint Displacements

#### OUTPUT

Load Combinations Joint Deflections Support Reactions Member Forces Data Saved for Reruns and Modifications AISC Code Stress Check for Wide Flange Sections **Determines Lightest Section** To Meet Stress Check Graphical Display of Input **Deformed Geometry Output** 

RETAIL PRICE:

\$4500 on HP 9845 \$6500 on HP 1000

COMPANY NAME:

ECOM Associates

CONTACTS: Curt Miller, P.E. Gary Koser, P.E.

ADDRESS:

5678 W. Brown Deer Rd. Milwaukee, Wis. 53223

TELEPHONE:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B, OPT.150	Peripherals: 2	20 MEG. Hard Disk
Memory: 187	K		Drive Req'd.
Operating System:			
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Supp	ported:		
<b>XX</b> Worldwide □ U.S. (all regions)	□ Canada □ Mexico	☐ Europe (all)	
☐ East	☐ Latin America (all)		
☐ South ☐ Midwest			
☐ West		── ☐ South Africa	□ Australia/N.Z.
Support Services Avai	lable:		
<b>XX</b> phone-in support ☐ on-site consulting	<b>XX</b> mail-in s	support systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Inf	ormation and Pricing:		
0110701459 79444		·	
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	YES		Price: Call in for quote
Documentation Availab	ole:		Price:
Documentation Availab	ple in other languages:		
NUMBER OF INSTA	ALLATIONS: 2	DATE OF FIRST INST	FALLATION: 3/1/81
ADDITIONAL INFOR	RMATION		
RESPONSIBILITIES S	TATEMENT		
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HP USE ONLY

I.D. Code:

Application Code: 15.21020

Expiration Date:

PRODUCT NAME

**CEADS** 

MAINFRAME(S)

(Opt. 100) 9845B

9845B (Opt. 150)

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The CEADS system for the HP 9845 consists of a set of modular, yet thoroughly integrated, program package covering the following areas:

DISK MANAGEMENT - allows the user to effectively utilize computer resources with little system training;

FIELD CONTROL - performs all the computations related to field work - from traverse closure to staking data;

COURDINATE GEOMETRY - allows the user to solve an geometric design problem be it subdivision, pipeline, airport, or bridge;

MASTER DESIGN - automatically links horizontal and vertical design perimeters to CUGO computations for the production of plan and profile sheets;

AUTUMATED DRAFTING - makes your draftsman more productive by allowing him to define the basic plot, then produce variations (Site Plans, Final Plats, etc.) with a minimum of additional work;

EARTHWURK - the Engineer/Designer enjoys total flexibility in the control of his earthwork projects or general volumetric applications. Template control and haul diagrams are some of the many factors available;

MASTER ACCOUNTING SYSTEM - designed specifically for the professional firm and includes payroll, cost accounting, accounts receivable, accounts payable and general ledger.

CEAUS - is a timesaving and productivity oriented software system that is simple to operate, versatile and expandable due to the modular concept in which it is written. CEADS is written to use the computer as an electronic filing cabinet for the entire project.

RETAIL PRICE: See Additional Information

CONTACTS: Robert T. Whitus COMPANY NAME: Holguin & Associates, Inc.

ADDRESS: P. O. Box 12930; 5822 Cromo St., El Paso, TX 79912

TELEPHONE: 915/581-1170

SYSTEM REQUIREMENTS			
Computer Model: 9845B/984	5T Periphera	als: 9895A Disk Drive 7910H " "	
Memory: 56 or 187K Byt	es	7906M " " 7580A Plotter	
Operating System: N/A		263lB Printer	
Other Software: N/A			
CUSTOMER SUPPORT			
Geographic Area Supported:			
□ South □	. , ,		
Support Services Available:			
<ul><li>phone-in support</li><li>on-site consulting</li></ul>	■ mail-in support     □ on-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>	
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCU	JMENTATION		
Training Available: Three day course available in El Paso as Price: Quoted needed by customer.			
Documentation Available: CEADS is a totally Turnkey System  user manuals offer extensive and complete documentation at all levels of operations.  Documentation Available in other languages:  English			
NUMBER OF INSTALLATIONS: 33 DATE OF FIRST INSTALLATION: 1/24/80			
ADDITIONAL INFORMATION	:CEADS - AGDS, FCS, MDS Plot GDS Total System - Single On	\$2,500.00 Ea. 1,000.00 rder 7,500.00	
CEADS Earthwork	Without Data Collector With Data Collector Data Collector Upgrade	3,500.00 4,000.00 1,000.00	
CEADS	Advanced Automated Drafting System 3,500.00 Digitize Control System 2,000.00		
GG1-1 Pipe Network Analysis/Design System 2,500.00			
	Master Accounting System	m \$5,000 - 11,000.00	

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### Software Supplier Product Summary



#### HP USE ONLY

I.D. Code:

Application Code: 15.21021

Expiration Date:

Product Name:

Mainframe(s):

#### FLOW NETWORK ANALYSIS

HP 9845B/T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The latest calculation methods have all been incorporated into this state-of-the-art software for the analysis of fluid piping networks.

For each node the user must specify either the nodal pressure or the flow rate into or out of the network through the node. The program will then determine unknown nodal pressures and internodal flow rates for an arbritrary N node pipe network.

#### Advantages over the standard Hardy Cross technique:

- The calculations apply to any fluid of constant density and viscosity--not just water.
- The "multiple K" method is used to account for fittings and valves. This is more accurate than the equivalent length or the "single K" method since it considers the effects of Reynolds number and pipe diameter.
- The Churchill equation is used to calculate friction factor.
   This equation is valid for the laminar, transitional, and turbulent flow regimes.

#### Other special features:

- Friendliness the flow network is easily described to the computer. Fittings, valves, and pipe surface roughness are menu selected. (it is not necessary for all pipes to have the same surface roughness)
- Flexibility modifications to the network description can be made at any time without reentering unchanged parameters. In fact, the entire network data set can be stored on tape or disc for future analysis with a simple command.

Retail Price:

\$750

Company Name:

KELIX SOFTWARE SYSTEMS

Address:

425 DAVENTRY DRIVE BATON ROUGE, LOUISIANA 70808

Telephone: (504) 769-6785

Telephone:

Contacts:

SYSTEM REQUIREMENTS	
Computer Model: HP-9845B/T	Peripherals: None
Memory: Standard	
Operating System: Standard	
Other Software: None	
CUSTOMER SUPPORT	
Geographic Area Supported:	
	Europe (all)
<ul><li>✓ U.S. (all regions)</li><li>✓ Mexico</li><li>✓ East</li><li>✓ Latin America (all)</li></ul>	
☐ South ☐	
☐ Midwest ☐	South Africa Australia/N.Z.
Support Services Available:	
☑ phone-in support ☐ on-site consulting ☐ on-site system ☐ on-site sy	rt
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available:	Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALLATION:
ADDITIONAL INFORMATION	

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### Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 15.21022

**Expiration Date:** 

Product Name:

### FLUID FLOW ANALYSIS

Mainframe(s):

HP 9845B/T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This program is designed to solve fluid flow problems quickly and accurately with minimal user effort. The program is applicable to any fluid of constant density and viscosity. It features:

#### **FLEXIBILITY**

The user may solve interchangeably for:

- flow rate
- pressure drop
- pipe diameter

#### **ACCURACY**

- The calculations apply to the laminar, transitional, and turbulent flow regimes.
- Fittings and valves are easily taken into account.

#### FRIENDLINESS

- The user may select from a variety of systems of units both English and Metric.
- Common values of pipe roughness are provided in the program or the user may input other values.
- "K" values for equivalent pipe length are printed on request.
- After the first calculation, a new case may be evaluated without reentering unchanged parameters.

Note: Available August 1, 1982

Retail Price:

\$125

Company Name:

**KELIX SOFTWARE SYSTEMS** 

425 DAVENTRY DRIVE

BATON ROUGE, LOUISIANA 70808

Telephone: (504) 769-6785

Telephone:

Address:

Contacts:

SYSTEM REQUIREMENTS			
Computer Model: HP-9845B/T	Peripherals: NONE		
Memory: Standard			
Operating System: Standard			
Other Software: NONE			
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide □ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □			
Support Services Available:			
	<ul><li>□ remote dial-in</li><li>⋈ program modification</li></ul>		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available:	Price:		
Documentation Available:	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE OF FIRST	T INSTALLATION:		
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT			

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

### Software Supplier Product Summary

#### **HP USE ONLY**

I.D. Code:

Application Code: 15.21023

Expiration Date:

Product Name:

Mainframe(s):

PINON (PIPE NETWORK OPTIMIZATION)

9835, 9845, 9826/36

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PINON is a comprehensive computer program for the analysis, design, and optimization of pipe network systems. It was designed specifically for the use on desktop computers. PINON consists of the program PINEA (analysis and design of pipe networks) and an optimization routine. The algorithm for computation of flow and pressure distribution is based on simultanious solution of all linearized flow and continuity equations. The optimization routine uses a set of user selected descrete pipe sizes and pipe cost and searches exhaustively for minimum cost within a set of user specified constraints. The procedure guarantees a selected minimum pressure throughout the network. PINON offers all the features listed for the program PINEA. In addition optimization features include:

- \* User specified cost figures.
- \* Flexible user specified constraints.
- \* Exhaustive search (i.e. absolute rather than local minimum).

Program capacity on a 9845 with 187K memory is about up to 500 nodes and 1000 pipes. No limits on number of pumps, pressure reducing valves, check valves, supply points and storage tanks.

Complete user documentation is provided, with a number of typical examples.

Applications include optimization of entire new pipe networks, network expansions and improvments.

Retail Price:

\$ 2950.-

Company Name: The Gessler Group, Inc.

Contacts: Johannes Gessler

Address:

P.O. Box 691

Ft. Collins, Colorado 80522

Telephone:

(303) 482-8021

SYSTEM REQUIREMENTS			
Computer Model: 9835, 9845, 9826/36		Peripherals: Printer	
Memory:			
Operating System: N/A			
Other Software: None			
CUSTOMER SUPPORT			
Geographic Area Supported:			
☐ Worldwide		☐ Far East (all)  ☐ ☐ ☐ ☐ Australia/N.Z.	
Support Services Available:		_ / toottalla/TIL	
X phone-in support			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site training if de	sired.	Price: Time and Expenses	
Documentation Available: Yes; English only		Price: Included in price of software.	
Documentation Available in other languages: N	0.		
NUMBER OF INSTALLATIONS:	DATE OF FIRST	INSTALLATION:	
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT			

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

**HP USE ONLY** 

I.D. Code:

Application Code: 15.21024

Expiration Date:

Product Name:

Mainframe(s):

PINEA (PIPE NETWORK ANALYSIS)

9835, 9845, 9826/36

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PINEA is a comprehensive computer program for the analysis and design of pipe network systems. It was designed specifically for the use on desktop computers. It uses a state-of-the-art algorithm based on the simultanious solution of the continuity and linearized flow equations. A major characteristic of PINEA is its excellent rate of convergence. Some of PINEA's features include:

- \* Fast, user oriented data input.
- \* Extensive error trapping during input.
- \* Check of input data for topological errors in network layout.
- \* Unlimited supply points.
- \* Unlimited pump-, pressure reducing valve- and check valve handling.
- \* Messages in case of insufficient pump capacities.
- \* Accuracy checked on pressure and flow rates.
- \* Friendly correction routine which lets the user change single data elements or groups of data elements before or after computations.
- \* Topological network changes (including deletions and additions) without the need of reentering data.

Program capacity on a 9845 with 187K memory is up to 500 nodes and 1000 pipes. No limits on number of pumps, pressure reducing valves, check valves, supply points and storage tanks.

Complete user documentation is provided, with a number of typical examples.

Applications of PINEA include the design and analysis of new and existing water distribution systems, industrial water supplies, pipe systems for heating and cooling, etc.

Retail Price:

\$ 1950.-

Company Name: The Gessler Group, Inc.

Contacts: Johannes Gessler

Address:

P.O. Box 691

Ft. Collins, Colorado 80522

Telephone:

(303) 482-8021

SYSTEM REQUIREMENTS	
Computer Model: 9835, 9845, 9826/36 Peripher	als: Printer
Memory:	
Operating System: N/A	
Other Software: None	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	
Support Services Available:	
□ phone-in support     □ on-site consulting	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On-site training if desired.	Price: Time and Expenses
Documentation Available: Yes; English only	Price: Included in price of software.
Documentation Available in other languages: No.	
NUMBER OF INSTALLATIONS: 20 DATE OF FIRST INSTA	LLATION: 1976
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT	

**HP USE ONLY** 

I.D. Code:

Application Code: 15.21025

Expiration Date:

Product Name:

Mainframe(s):

SEDAN (SPRINKLER SYSTEM DESIGN AND OPTIMIZATION)

9835, 9845, 9826/36

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

SEDAN is a comprehensive program for the design of automatic fire sprinkler systems. It was designed specifically for the use on desktop computers. It uses a state-of-the-art algorithm which is based on the simultanious solution of all equations (flow equations, continuity equations, and sprinkler discharge equations). One of the most outstanding characteristics of SEDAN is its excellent rate of convergence. Special features include:

- \* Selection from three input routines depending on system regularity, including a flexible, very fast automatic numbering routine for gridded and branched systems.
- \* Extensive error trapping during input.
- \* Accuracy checked on pressure and flow rates (0.01 psi and 0.05 gpm).
- \* Friendly correction routine which allows to change any individual element or groups of elements in the system.
- \* Multiple supply points, including flow test and/or pressure/gravity tanks.
- \* NFPA formatted output with velocity in each pipe.
- \* Program options include: fast balancing
  - full accuracy balancing
  - peaking routine (including outside of cross mains)
  - balancing with user selected minimum pressure
  - pipe sizing based on least cost configuration
  - (optimization routine)
  - schematic flow graph with flows and flow directions.

Program capacity on a 9835 with 64K memory is up to 260 nodes and 310 pipes.

Applications include automatic fire sprinkler systems for any purposes, including wet and dry systems, deluge systems, all hazard ratings. The program follows the rules and guidelines of the NFPA code. Yet SEDAN lets the user design systems which also may follow other sets of requirements.

A metric version of the program is available.

Retail Price:

\$ 4950.-

Company Name:

The Gessler Group, Inc.

Contacts: Johannes Gessler

Address:

P.O. Box 691

Ft. Collins, Colorado 80522

Telephone:

(303) 482-8021

SYSTEM REQUIR	REMENTS	
Computer Model:	9835, 9845, 9826/36	Peripherals: Printer
Memory:	earlier version available for 9825	
Operating System:	N/A	
Other Software:	None	
CUSTOMER SUP	PORT	
Geographic Area S	Supported:	
□ South		
Support Services A	Available:	
* Contact sup Additional Support	rt	
On-site suppo Expenses basi	ort and program modifications are prov s.	vided on a Time and Material/
CUSTOMER TRA	INING/DOCUMENTATION	
Training Available:	On-site training if desired	Price: Time and Expenses
Documentation Ava	allable: Yes; English only	Price: Included in price of software
Documentation Av	ailable in other languages: No	
NUMBER OF INS	STALLATIONS: 30 DATE OF FIRS	ST INSTALLATION: 1975
ADDITIONAL INF	FORMATION	
extensive as fire p The progr systems i nuclear p	ram has been systematically refined only used by mechanical contractors, sprotection consulting engineers; throu am has been used with equal success for small warehouses, large hotel complower plants, etc. The program is not for developing the bidding documents.	orinkler contractors, as well ughout the U.S. and abroad. For the design of sprinkler lexes, high-rise buildings, only used for the final design

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31005

**Expiration Date:** 

Product Name:

85/CD-2 Concrete Column Design

Mainframe(s):

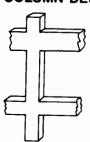
HP-85

HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

## CD-2

## REINFORCED CONCRETE COLUMN DESIGN



Designs or checks the capacity of a reinforced concrete column in accordance with ACI 318-77 with bending in either or both directions. Slenderness effects are evaluated according to the moment magnification method in accordance with Section 10.11 of the ACI Code. Slenderness ratio limited to 100 or less. Cross-sections include rectangular (tied), round (spiral or tied), and square with circular bar arrangement (spiral or tied). No provision has been made for lateral loads applied between ends.

### Input

Material Properties
Design Method
Loads and Moments
Unsupported Length
Cross-Section
Effective Length

#### Output

Reinforcement Data Allowable Load and Moment Moment Magnification Factor Spiral Size and Pitch Eccentricities

DESIGN CODE	LIMITATIONS	COMMENTS
ACI-318 Ultimate or Working Methods	Maximum slenderness ratio of 100     Reinforcement is assumed symmetrically placed     No lateral loads between ends	Has design and check routines     Uses moment magnification method     Allows biaxial bending

Retail Price:

\$450.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

414-354-0243 or 800-558-5137

SYSTEM REQUIR	EMENTS			
	HP-85A (Requires HP-87A (Requires		Peripherals: May be 5 1/4"	used with Disc Drives
Memory:				
Operating System:				
Other Software:				
CUSTOMER SUP	PORT			
Geographic Area S	upported:			
<ul><li>☐ Worldwide</li><li>☒ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Mexico ☐ Latin America (all) ☐			
Support Services A				
phone-in suppor     on-site consultir	t 🔀 mail-i ng □ on-sit	n support e systems engineers	□ remote dia □ program n	
Additional Support ECOM compre and current	Information and Pricing: hensive maintena pricing.	nce program ava	ilable. Call f	or details
CUSTOMER TRA	NING/DOCUMENTATIO	N		
Training Available:	At ECOM or by s	-	plus	.00 per day
Documentation Ava	ailable: Comprehensi program	ve manual suppl	ied with expe	nses
Documentation Ava	ailable in other languages:			
NUMBER OF INS	STALLATIONS: 112	DATE OF FIRS	T INSTALLATION: 4	/80
ADDITIONAL INF	ORMATION			
	m is also curren ms are in use in			
	OM and/or Matrix with I/O or Matr		memory overflo	w errors;
	<b>)</b> -			
DECRONGIBULITIES	CTATEMENT			

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31006

**Expiration Date:** 

Product Name:

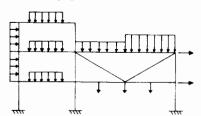
Mainframe(s):

85/FA-3 Plane Frame & Truss Analysis

HP-85 HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

# FA-3 GENERAL FRAME ANALYSIS



Determines critical moments, shears, axial loads, and the displacements at all joints for a plane frame of any configuration. Initial axial displacements are allowed in order to evaluate the effects of settlements, member shrinkage, or member temperature change. Members may have variable section. Members may have uniform (full or partial length) or concentrated loads.

### Input

Frame Geometry
Support Conditions
Member Properties
Loads and Axial Initial
Displacements
Load Combinations

#### Output

Joint Displacements and Rotations Member Forces and Reactions Maximum Moments

SOLUTION METHOD	PROBLEM SIZE	LOADINGS	COMMENTS
Matrix Method	80 joints 50 member types 120 members 4 load combinations	Concentrated loads     Uniform loads (partial or full length)     Initial axial displacements     Can use load factors to combine loads	1) Allows variable sections 2) Hinges allowed at ends of members 3) Input data can be stored for reruns by using DF-3

Retail Price: \$750.00

Company Name:  ${\tt ECOM}$  Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

414-354-0243 or 800-558-5137

SYSTEM REQUIF	REMENTS					
Computer Model: Memory:	HP-85A HP-87A	(Requires (Requires	32K) 64K)	Periph	erals: May be 5 1/4"	used with Disc Drive
Operating Systems						
Other Software: Optional: G (HP-87) R CUSTOMER SUP	raphics [ OM 00087-	Dump to HP-8	2905B Pri	PF-3 Re-Run I	_	_
Geographic Area S	Supported:					
□ Worldwide 议U.S. (all regions	X Cana Mexic Latin	da co America (all)		ope (all)		
Support Services	Available:					
		⊠ mail-ir □ on-site	support systems er	gineers	☐ remote di ☐ program	al-in modification
and current	hensive pricir	e maintenar ng.		ram availab	le. Call f	or details
Training Available:	At ECOM	or by spe	ecial ar	-	plus	0.00 per day s travel
Documentation Av	ailable: Co pr	omprehensi	ve manua	al supplied w	with expe	enses
Documentation Av	ailable in of	ther languages:				
NUMBER OF IN	STALLATIO	<b>NS</b> : 155	DAT	E OF FIRST INST	ALLATION: 4	1/80
ADDITIONAL IN	FORMATIO	N				
				seted on the gineering fir		
HP-85 I/O I do not run				y cause memo Lace.	ory overflo	ow errors;
RESPONSIBILITIE	S STATEMEN	T				



**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31007

Expiration Date:

Product Name:

85/CD-3 Flat Slab Analysis & Design

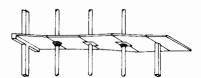
Mainframe(s):

HP-85

HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CD-3
FLAT SLAB ANALYSIS
AND DESIGN



Analyzes and designs flat slab or waffle slab floors in accordance with ACI 318-77. Flat slabs may have drop panels at columns. Columns may have capitals. Either the ultimate strength or the working stress method may be used. Design is for a one-bay wide strip using the equivalent frame analysis method and may be up to 10 spans. The strip may have cantilevers. No beams parallel to the direction of moments are permitted.

Input

Spans and Bay Width Strip Configuration Material Properties Loads Design Method **Output** 

Joint Moments and Shears Design Forces Shear Stresses Reinforcement Data Material Quantities

DESIGN CODE	LIMITATIONS	COMMENTS
ACI-318 Ultimate or Working Methods	1) 10 spans with cantilevers     2) No beams parallel to strip being analyzed	1) Handles flat and waffle slabs with drop panels and column capitals and spandrels at ends 2) Analysis of one bay wide strip 3) Loads may be uniform (full length or partial) and concentrated superimposed dead and/or live loads

Retail Price: \$625.00

Company Name:  $_{\hbox{ECOM}}$  Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

5634 W. Brown Deer Road

Telephone:

Milwaukee, WI 53223

414-354-0243 or 800-558-5137

SYSTEM REQUIREMENTS
Computer Model: HP-85A (Requires 32K)  HP-87A (Requires 6  Peripherals: May be used with 5 1/4" Disc Drives
Memory:
Operating System:
Other Software:
CUSTOMER SUPPORT
Geographic Area Supported:
□ Worldwide       ▼ Canada       □ Europe (all)       □ Far East (all)         □ U.S. (all regions)       □ Mexico       □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Support Services Available:
☒ phone-in support       ☒ mail-in support       ☐ remote dial-in         ☐ on-site consulting       ☐ on-site systems engineers       ☐ program modification
Additional Support Information and Pricing: ECOM comprehensive maintenance program available. Call for details and current pricing.
CUSTOMER TRAINING/DOCUMENTATION
Training Available: At ECOM or by special arrangement  Price: \$400.00 per day plus travel expenses
Documentation Available: Comprehensive manual supplied with Price: program.
Documentation Available in other languages:
NUMBER OF INSTALLATIONS: 110 DATE OF FIRST INSTALLATION: 4/80
ADDITIONAL INFORMATION
This program is also currently marketed on the HP-9845, and HP-125; ECOM Programs are in use in 500 engineering firms around the world.
HP-85 I/O ROM and/or Matrix ROMS may cause memory overflow errors; do not run with I/O or Matrix in place.
RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31008

Expiration Date:

Product Name:

85/SD-1 Steel Beam Design

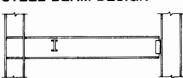
Mainframe(s):

HP-85

HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### SD-1 STEEL BEAM DESIGN



Designs or checks steel W. S and C sections subjected to loads and end moments. The program selects the lightest sections for each of several section depths. A check routine allows the designer an opportunity to check a section. The ratio of the actual working load shear stress to the AISC allowable shear stress is also calculated. Solutions do not include biaxial bending problems. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual

#### Input

Loads and End Moments Material Properties Bracing Points Section Type Nominal Depth

#### Output

Lightest Section
Moment Capacity
Shear Stress Ratio
End Reactions
Maximum Moments
Centerline and
Cantilever
Deflections

TITLE	DESIGN CODE	LIMITATIONS	COMMENTS
Steel Beam Design	AISC	Does not include section weight in loads     Does not design cantilever sections	<ol> <li>Allows definition of lateral brace spacing</li> <li>Data for W6 through W36 sections, S-shapes and channel sections is included</li> <li>Allows end moments or cantilevers</li> <li>Computes bending and shear stresses</li> <li>Has design and check routines</li> <li>Computes mid-span deflection and cantilever deflection</li> </ol>

Retail Price:

\$250.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

414-354-0243 or 800-558-5137

SYSTEM REQUIREMENTS
Computer Model: HP-85A (Requires 32K) Peripherals: May be used with
Memory: HP-87A (Requires 64K) 5 1/4" Disc Drives
Operating System:
Other Software:
CUSTOMER SUPPORT
Geographic Area Supported:
□ Worldwide       □ Canada       □ Europe (all)       □ Far East (all)         ☑ U.S. (all regions)       □ Mexico       □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Support Services Available:
□ phone-in support         □ on-site consulting         □ on-site systems engineers         □ program modification         □ on-site systems engineers         □ program modification         □ program modific
Additional Support Information and Pricing: ECOM comprehensive maintenance program available. Call for details adn current pricing.
CUSTOMER TRAINING/DOCUMENTATION
Training Available: At ECOM or by special arrangement  Price: \$400.00 per day plus travel  Documentation Available: Comprehensive manual supplied with Price:  program.
Documentation Available in other languages:
NUMBER OF INSTALLATIONS: 110 DATE OF FIRST INSTALLATION: 4/80
ADDITIONAL INFORMATION
This program is also currently marketed on the HP-9845; and HP-125, ECOM Programs are in use in 500 engineering firms around the world.
HP-85 I/O ROM and/or Matrix ROMS may cause memory overflow errors; do not run with I/O or Matrix in place.
ECOM Steel Programs use United States shapes and are not available in metric versions.
RESPONSIBILITIES STATEMENT  This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31009

**Expiration Date:** 

Product Name:

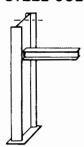
85/SD-2 Steel Column Design

Mainframe(s):

HP-85 HP-87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### SD-2 STEEL COLUMN DESIGN



Designs or checks wide flange, tube or pipe steel sections subjected to axial loads with or without bending moments applied about axes of the column. The moments can be applied to either or both ends of the column. The program selects the lightest section for a specified depth. "Pinended column" base plates can also be designed. Base plate dimensions can be established for special "built-up" column shapes. The program includes data files for W6 through W36 sections as listed in the AISC Steel Construction Manual.

Input

Material Properties Bracing Conditions Axial Loads Moments Nominal Depth

#### Output

Lightest Section AISC Interaction Equation Results Base Plate Data

TITLE	DESIGN CODE	LIMITATIONS	COMMENTS
Steel Column Design	AISC		1) Allows for biaxial bending 2) Data for W6 through W36 sections is included 3) Has module for base plate design 4) Has design or check routines

Retail Price:

\$275.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Gary Koser Mike Fegley

Address:

8634 W. Brown Deer Road

Milwaukee, WI 53223

Telephone:

414-354-0243 or 800-558-5137

SYSTEM REQUIR	EMENTS							
Computer Model: Memory:		(Requires (Requires			Peripherals	S:May be 5 1/4"	used Disc	with Drives
Operating System:								
Other Software:								
CUSTOMER SUP	PORT							
Geographic Area S	supported:							
	□ Latin □ _ □ _			ope (all)		☐ Far East ☐ ☐ ☐ ☐ ☐ Australia		
Support Services A	vailable:							
☐ phone-in suppo☐ on-site consulti		⊠ mail-in □ on-site	support systems er	ngineers		<ul><li>□ remote d</li><li>□ program</li></ul>		ition
Additional Support ECOM compre	ehensiv	e maintena	nce prog	gram ava:	ilable.	Call	for d	etails
CUSTOMER TRA	INING/DO	CUMENTATION	ı					
Training Available:	ailable: Co						0.00 p s trav enses	
Documentation Av	_							
NUMBER OF IN	STALLATIC	NS:	DA	TE OF FIRST	T INSTALL	ATION:		
ADDITIONAL IN	FORMATIC	N						,
This progra								
HP-85 I/O H do not run	ROM and, with I,	or Matrix O or Matri	ROMS ma	ay cause lace.	memory	overfl	ow er	rors;
ECOM Steel in metric v			ted Stat	tes shape	es and	are not	avai	lable
RESPONSIBILITIE This software was responsible for its endorsement, repr	developed software and	by an independent d support services.	HP is not the	manufacturer	or co-develo	per of this sof	itware and	l makes no

**HP USE ONLY** 

I.D. Code: 10001

Application Code: 15.31010

Expiration Date:

Product Name:

85/CD-1 Concrete Beam Design

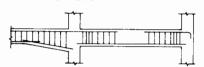
Mainframe(s):

HP-85

HP-87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

# REINFORCED CONCRETE **BEAM DESIGN**



Designs reinforced concrete beams by either the ultimate strength or working stress method of ACI 318-77. Flexural reinforcement requirements are given for rectangular, tee, or ledger beam sections. Cutoff locations are given for the various bar sizes that the designer may choose to use. The end sections and midspan section may be of different size.

Input

Material Properties Design Method Cross-Section Dimensions Stirrup Size Loads

Output

Reinforcement Areas Bar Cutoff Data Stirrup Spacing Design Moments Inflection Points

DESIGN CODE	LIMITATIONS	COMMENTS
ACI-318 Ultimate or Working Methods	Does not include torsion analysis	End sections and mid-span may be different sizes     Gives bar cutoff data     Suggests and designs stirrups

Retail Price: \$475.00

Company Name: ECOM Associates, Inc.

Contacts: Jerry Manning

Address:

Telephone:

5634 W. Brown Deer Road Milwaukee, WI 53223

414-354-0243 or 800-558-5137

Gary Koser Mike Fegley

SYSTEM REQUIR	REMENTS					
Computer Model: Memory:	HP-85A HP-87A	(Requires (Requires	32K) 64K)	Periphera	als:May be 5 1/4"	used with Disc Drives
Operating System:	:					
Other Software:						
CUSTOMER SUP	PORT	· · · · · · · · · · · · · · · · · · ·				
Geographic Area S	Supported:					
	☐ Latin ☐ ☐	co America (all)	_	e (all)  Africa		
Support Services A	Available:					
□ phone-in suppo     □ on-site consulti	rt	<b>⊠</b> mail-in □ on-site	support systems engi	neers	□ remote di	ial-in modification
Additional Support ECOM compreand current	hensive	maintenar	ice progra	am available	. Call f	for details
CUSTOMER TRA	INING/DO	CUMENTATION	<u> </u>		<del></del>	-
Training Available:	ailable: Co			rangement supplied wi	plus	0.00 per day s travel enses
Documentation Av	_	-				
NUMBER OF INS	STALLATIO	<b>NS</b> : 110	DATE	OF FIRST INSTAL	.LATION: 4	1/80
ADDITIONAL IN	FORMATIO	N				
				ted on the H		
	ROM and/	or Matrix	ROMS may	cause memor		
responsible for its	developed b	y an independent I support services.	HP is not the ma	er for operation on HF unufacturer or co-devel n respect to the suppli	loper of this soft	tware and makes no

**HP USE ONLY** 

I.D. Code: 10047

Application Code: 15.31011

**Expiration Date:** 

Product Name:

Mainframe(s):

CivilSoft-85

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CivilSoft is a general Surveying and Site Design program that includes all the basic COGO type operations, but written in an easier to use form than standard COGO. Included is a plotting program that will allow the user to plot at any scale and any size WITHOUT USING AN EXTERNAL PLOTTER! Point storage capability is 999 max. in internal memory and the user chooses file name and size. Plots can be stored on tape and recalled for revisions or additional plots at other scales, you can even plot trees for landscape plans. Using the legal description program that is included, you can write your legals in minutes by simply inversing between computer points. Curves with radial lines that are not equal will not inverse, there is a sequential inverse routine which will save time, and bearings such as N 90 00 00 E will print Due East!

Included in CivilSoft is a complete vertical design section which includes Vertical traversing with points stored as stations and elevations, slope intersections, traversing and inversing, vertical curve design, profile plotting (user chooses horizontal and vertical scales), earthwork with cut and fill separated, and pipe and ditch design. Included also is a compete radial surveying program.

CivilSoft comes with a complete and easy to read manual which will take you step-by-step through all the routines. There are no complex codes to learn, for example, you can traverse, enter sideshots, enter vertical angles from a single line without going to codes or function keys. You can enter distances as equations while inputting data. Advanced legal description program is available at no additional cost if you are to connect to the HP-82905A printer. CivilSoft is also available for the  $5\frac{1}{4}$ " dual disk drive, at no additional cost.

Retail Price:

\$595.00

Company Name:

LAND INNOVATION

Contacts: Richard Harrison

Address:

P.O. BOX 50662

Dallas, TX 75250-0662

Telephone:

(214) 234-6636

SYSTEM REQUIRE	MENTS			
Computer Model: HP-85A			Peripherals: None are needed, program may run on disc drive and	
Memory: 16K Memory Module - 82903A  Mass Storage ROM- 00085-15005 and Plotter/Printer Operating System: ROM- 00085-15002 (If using Flexible			use external printer if desired	
Other Software:	Disc Drive or exte	rnal printer.)		
CUSTOMER SUPPO	DRT			
Geographic Area Sup	ported:			
☑ U.S. (all regions)  ☐ East			☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
Support Services Ava	ilable:			
□ phone-in support     □ on-site consulting	⊠ mail-in □ on-site	support systems engineers	☐ remote dial-in ☐ program modification	
Additional Support In	formation and Pricing:			
Will modify pr	ogram for individua	al users at additi	onal cost.	
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:			Price:	
Documentation Available: 110 page manual with examples			Price:	
Documentation Avail	able in other languages:			
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRS	T INSTALLATION:	
ADDITIONAL INFO	RMATION	A		
	pecify if you have HP-82905A) when or		rive or external printer	
Sold through license agreement only, listing is not available. Some variables are available.				
RESPONSIBILITIES S	TATEMENT			

**HP USE ONLY** 

I.D. Code: 10036

Application Code: 15.31012

Expiration Date:

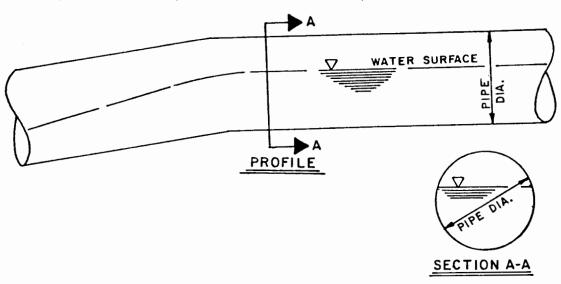
Product Name:

**PIPWAT** 

Mainframe(s):

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



This program solves for backwater in a round open channel. It will solve for a M1, M2, M3, S1, S2 and S3 curve.

The method of solution uses an iteration process to solve the Standard Step Method where D1 +  $V1^2/2g$  + S X L = D2 +  $V2^2/2g$  + Hf.

The program will also advise the operator the maximum depth required upstream at the entrance to the pipe, assuming an entrance loss of  $.2V^2/2g$  and will advise when flow depths equal or exceed .8 of the diameter of the pipe, thereby, approaching depths where flow capacities decrease.

Retail Price:

\$300.00

Company Name:

M. Hudis & Associates

2360 Professional Drive Santa Rosa, CA 95401

Telephone:

Address:

(707) 542-8795

Contacts:

Milton Hudis

SYSTEM REQUIRE	EMENTS		
Computer Model:	HP-85A	Periphera	ls: None
Memory: None			
Operating System:	None		
Other Software:			
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West  Support Services Av	Latin America (all)	□ □ South Africa	☐ ☐ ☐ ☐ Australia/N.Z.
phone-in support     □ on-site consulting		port tems engineers	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>
Additional Support I	Information and Pricing:		
	fication is available.		
CUSTOMER TRAIN	NING/DOCUMENTATION		
Training Available:	AZ		Price:
Not Necessar			Price:
	ge manual in English.		
1 ' ' '	ilable in other languages:		
NUMBER OF INST	TALLATIONS:	DATE OF FIRST INSTAL	LATION:
ADDITIONAL INF	ORMATION		-
RESPONSIBILITIES	STATEMENT		

**HP USE ONLY** 

I.D. Code: 10036

Application Code:

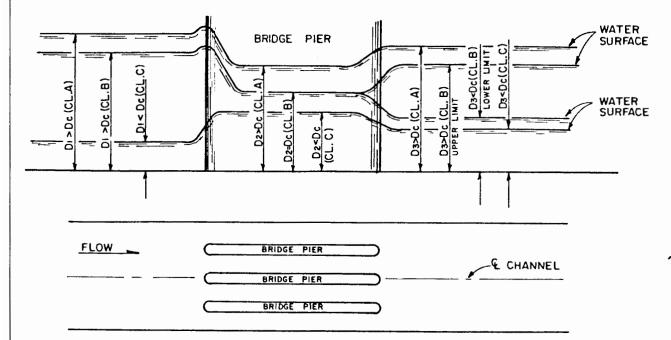
15.31013

Expiration Date:

Contacts: Milton Hudis

Product Name: Mainframe(s): P+MGEN HP-85A PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product

information, user-specific details, major features and benefits, etc.)



Solves for hydraulic losses and resultant water surfaces for open channel flow past bridges by pressure plus momentum method.

Retail Price:

\$100.00

Company Name: M. Hudis & Associates

2360 Professional Drive

Address:

Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIREMENTS	
Computer Model: HP=85A	Peripherals: 82905A Printer
Memory: 16K	
Operating System: Matrix, Plotter/Printer	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide ☒ Canada □ Europe (all)   ☒ U.S. (all regions) □ Mexico ☒ Great B   □ East □ Latin America (all) □	Far East (all)   ritain
Support Services Available:	
<ul><li>☒ phone-in support</li><li>☐ on-site consulting</li><li>☒ mail-in support</li><li>☐ on-site systems engineers</li></ul>	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Information and Pricing:	
Program modification is available. Can be modified to use internal printer only.	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Available.	
Documentation Available:	Price:
Six (6) page manual in English.	
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: DATE OF FIRST	ST INSTALLATION:
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	The second secon



#### HP USE ONLY

I.D. Code: 10036

Application Code:

15.31014

Expiration Date:

Contacts: Milton Hudis

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DIRECTION OF FLOW

TOE OF SLOPE

ENERGY GRADE

WATER SURFACE

CHANNEL BOTTOM

Mainframe(s):

85A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This program solves for an open channel transition by the Standard Step Method.

PROFILE

LENGTH

This program is completely interactive and will advise the operator of the up and downstream conventions. It will request flow quantities, bottom width upstream and downstream, channel side slopes ("Z"), upstream and the transition loss "K" in the formula " $K'' \Delta V 2/2q$ , as well as transition length and slope.

Prior to requesting whether the control is upstream or downstream, the program will calculate critical depth in both the downstream and upstream section so that the operator will know the type of flow being considered.

All calculations are accomplished by iteration, using the Standard Step Method.

Channel width and side slopes may be varied upstream and downstream, so that transitions from trapezoidal to rectangular or "V" bottom channels may be calculated.

Retail Price:

\$150.00

XXXII XXXII XXXII XXXII XXXII XXXII X

Company Name:

M. Hudis & Associates

2360 Professional Drive

Address:

Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIRE	EMENTS		
Computer Model:	HP-85A	Periphei	rals: None
Memory: None			
Operating System:	None	1	
Other Software:			
CUSTOMER SUPP	ORT		
Geographic Area Su			
🕱 U.S. (all regions)	□ Latin America (all)	□ Europe (all)  ★ Great Britain □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Av			
phone-in support on-site consulting	🔀 mail-ir	n support e systems engineers	☐ remote dial-in ☐ program modification
Additional Support I	Information and Pricing:		
Progra	m Modification is a	vailable.	
CUSTOMER TRAIN	NING/DOCUMENTATION	l	
Training Available:	None is required.		Price:
Documentation Avai	ilable:		Price:
Three (3) Pa	age manual availabl	e in English.	
Documentation Avai	ilable in other languages:	•	
NUMBER OF INST	TALLATIONS:	DATE OF FIRST INSTA	LLATION:
ADDITIONAL INFO	ORMATION		

#### RESPONSIBILITIES STATEMENT

HP USE ONLY

I.D. Code: 10036

Application Code: Expiration Date:

15.31015

Product Name:

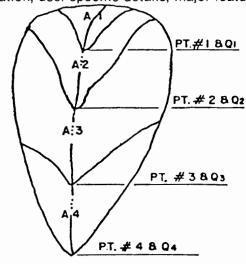
HYDROL

Mainframe(s):

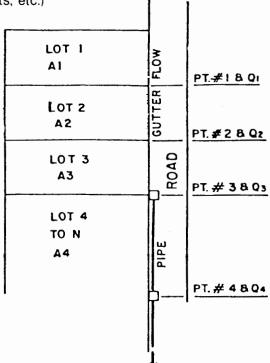
HP-85A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product

information, user-specific details, major features and benefits, etc.)



NATURAL MOUNTAIN STREAM



This program is based on a rational formula of "Q" = CIAK, routing flows down a watershed, calculating new times of concentration and resulting "O's".

The user is required to put in the initial time of concentration only, generally for a very small area, 1/2 acre or less in size for three frequencies of storms may be calculated at the same time.

The first question the computer will ask is for "K". After the initial times are entered, the computer will request the number of acres of the initial area, the runoff coefficient and will ask for the type of conveyance, such as street, etc., in which the flows are to be routed through. This question will be repeated after each calculation. Printouts for street and rolled curb sections will also indicate the depth of flow in the gutter. "C" values may be changed at any time and the computer will calculate a weighted "C" for the entire area.

(Continue: Additional Information.)

Retail Price:

\$400.00

Company Name:

M. Hudis & Associates

2360 Professional Drive

Address:

Santa Rosa, CA 95401

Telephone:

(707) 542-8795

Contacts: Milton Hudis

SYSTEM REQUIRE	MENTS		
Computer Model:	HP-85A	Periphera	uls: N/A
Memory: N/A			
Operating System:	N/A		
Other Software:			
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
<ul> <li>□ Worldwide</li> <li>⋈ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul> Support Services Av ⋈ phone-in support	Latin America (all)	□ □ South Africa	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
on-site consulting		stems engineers	program modification
	nformation and Pricing:	•	
CUSTOMER TRAIN	NING/DOCUMENTATION		
Training Available:			Price:
Unnecessary  Documentation Avai	lahle:		Price:
Five (5) pag	e manual in English. Hable in other languages:	. •	
NUMBER OF INST	TALLATIONS:	DATE OF FIRST INSTAL	LATION:
a "S" respon print in the Junction at The program program or t During all c the operator	puter asks if the oper d will sequentially no point name such as Ju Fife Creek. allows use of three in he operator may enter omputation, the compu- to make changes in in	umber each print. Other unction Box No. 1, Stor ntensity vs. time formu	m Drain Manhole No. 1,  las in the body of the operation of the program. s on the CRT, allowing ation, drainage area,
RESPONSIBILITIES	STATEMENT		

HP USE ONLY

I.D. Code: 10036

Application Code: 15.31016 Expiration Date:

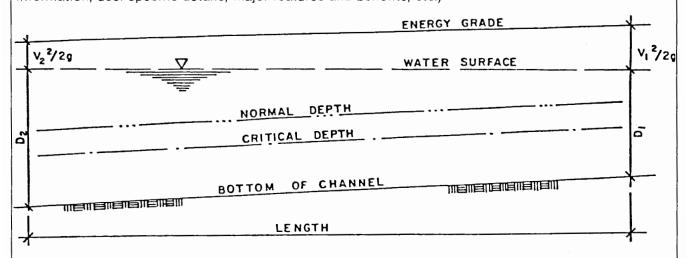
Product Name:

Mainframe(s):

BACWAT - BACKWATER IN PRISMATIC CHANNELS

HP-85A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



This program calculates the backwater in any prismatic channel using the Standard Step Method and Mannings equation.

The program will solve for a M1 curve, M2 curve, M3 curve, S1 curve, S2 curve and a S3 curve.

The program will request all values required for the calculation and will first calculate normal depth and critical depth and then advise the operator if the slope is mild or steep and, therefore, whether the control is normally upstream or downstream.

It will then ask whether the known value is upstream or downstream, depending upon the type of curve the operator is solving. The program will then request the value in feet and the length to the unknown depth and will then solve the unknown depth.

All solutions are accomplished by iteration.

Retail Price:

\$250.00

Company Name:

M. Hudis & Associates

Contacts: Milton Hudis

Address:

2360 Professional Drive Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIREMENTS	
Computer Model: HP-85A Peripherals:	
Memory:	
Operating System:	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
MOLIS (all regions) The Mayico	East (all)
☐ East ☐ Latin America (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
□ East     □ Latin America (all)     □       □ South     □       □ Midwest     □	
	tralia/N.Z.
Support Services Available:	
★ phone-in support	ote dial-in gram modification
Additional Support Information and Pricing:	
Program modification available.	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Price:	
Documentation Available: Price:	
Three (3) page manual in English.	
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION	l:
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	

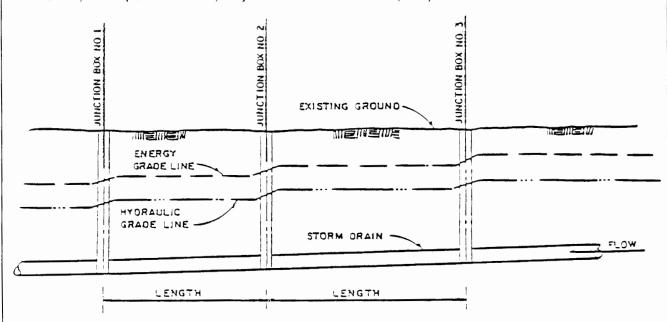
HP USE ONLY

I.D. Code: 10036

Application Code: 15.31018 Expiration Date:



PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



This program calculates losses in a storm drain pipe system under pressure and will also calculate junction losses at catch basin and junction structures. Two storms may be solved for simultaneously.

Upon starting the program, the computer will ask if the operator wants to use the junction loss program first and also asks this question during the course of running the program after each length of pipe is computed. Name of the junction structure may be entered by number or name.

All flows should be entered in cfs. "Q's" into the junction structure will be asked for by lower case "q".

The angle of the pipe entering the junction request is the angle between the centerline of the outflow pipe and the centerline of the projected centerline of the outflow pipe (deflection angle).

The "K" value solved for is (K3). All other "K" losses requested, is "K" in the formula  $K(V^2/2g)$ . (Continue: Additional Information.)

Retail Price:

\$400.00

Company Name: M. Hudis & Associates Contacts:

Milton Hudis

Address:

2360 Professional Drive Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIRE	EMENTS				
Computer Model:	HP-85A	Periphera	ls: None		
Memory: None					
Operating System:	None				
Other Software:					
CUSTOMER SUPP	ORT	100			
Geographic Area Su	pported:				
■ U.S. (all regions)  □ East □ South □ Midwest □ West  Support Services Av ☑ phone-in support □ on-site consulting  Additional Support  Program modi	☐ Mexico ☐ Latin America (all) ☐	□ South Africa ort	☐		
Training Available:			Price:		
Unnecessa	_		Drings		
Documentation Ava			Price:		
Nine (9) page manual in English.  Documentation Available in other languages:					
NUMBER OF INS	NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:				
ADDITIONAL INF	ORMATION				
Discharge rates are requested first for the first year storm, then for the second year storm. Beginning energy grades are also requested in the same sequence.  All computed answers will be displayed on the CRT, allowing the operator to make changes and decide when final answer should be printed out.					
DECDONCIBILITIES	CTATEMENT	4.4			

#### RESPONSIBILITIES STATEMENT

HP USE ONLY

I.D. Code: 10036

Application Code:

15.31019

Expiration Date:

Product Name:

R-WALL

Mainframe(s):

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Complete solution for either block or concrete retaining walls by working stress.

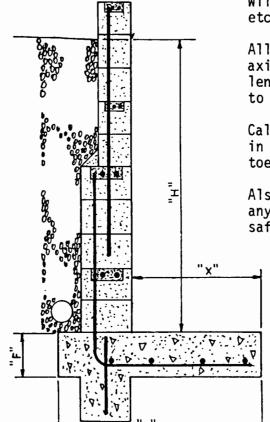
Will solve for unbalanced steel design, sliding, etc.

Allows the operator to vary steel working stress, axial loads applied to the top of the wall, length of footing and distance to face of wall to see how foundation pressures vary.

Calculates shears, moments and steel required in the wall, steel required and moments in the toe and heel members.

Also allows operator to design a shear key of any width and depth to increase factor of safety of sliding.

Contacts: Milton Hudis



Retail Price:

\$500.00

Company Name:

M. Hudis & Associates

2360 Professional Drive

Address:

Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIREMENTS	
Computer Model: HP-85A	Peripherals: None
Memory: None	
Operating System: None	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide X Canada Europe (all)   X U.S. (all regions) Mexico X Great Br   East Latin America (all) □   South □ □   Midwest □ □   West □ South Africa	
Support Services Available:	
	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Information and Pricing:	
Program modification is available.	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
None Required  Documentation Available:	Price:
Eight (8) page manual in English.	
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: DATE OF FIRST	T INSTALLATION:
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	

HP USE ONLY

I.D. Code: 10036

Application Code:

15.31020

Expiration Date:

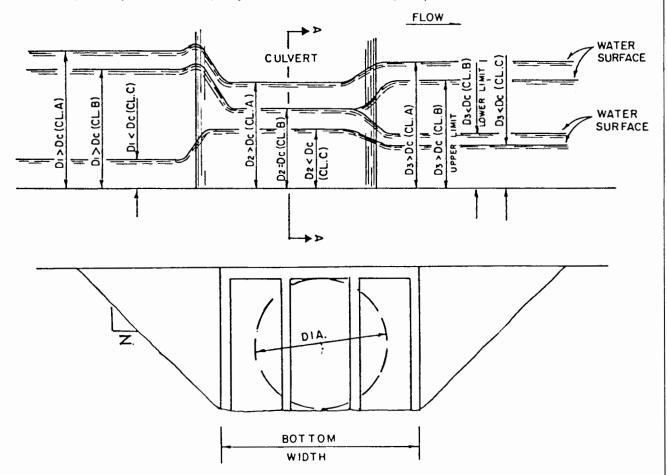
Product Name:

P+MCUL

Mainframe(s):

HP-85A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



Solves for hydraulic losses and resultant water surfaces in a trapezoidal, rectangular or V shaped channel by pressure plus momentum method when open channel flows pass through a rectangular or round culvert.

Retail Price:

\$100.00

Company Name:

M. Hudis & Associates

Contacts: Milton Hudis

Address:

2360 Professional Drive Santa Rosa, CA 95401

Telephone:

(707) 542-8795

SYSTEM REQUIREMENTS	
Computer Model: HP-85A	Peripherals: 82905 Printer
Memory: 16K	
Operating System: Printer/Plotter	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide	C
□ phone-in support       □ mail-in support       □ on-site consulting    □ on-site systems engineers	☐ remote dial-in ☐ program modification
Additional Support Information and Pricing:  Program Modification available. Can be modified  CUSTOMER TRAINING/DOCUMENTATION	to use internal printer only.
Training Available:  Is available.	Price:
Documentation Available:  Nine (9) page manual in English	Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: DATE OF FIRS	ST INSTALLATION:
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	



HP USE ONLY

I.D. Code: 10056

Application Code: 15.31021

**Expiration Date:** 

Product Name:

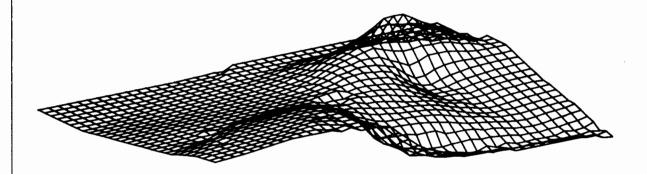
Mainframe(s):

HP 80 series 9835, 9845

### 3-D PROJECTIONS

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The ability to view the terrain in 3 dimensions can be a valuable selling tool as well as an important design aid. Several features combine to make the 3-D program both exciting and useful. For example, by superimposing a sub-division plat on a three-dimensional surface, you can see how each lot fits into the terrain and plan for view homes or unusual drainage problems. By selecting different angles of rotation and tilt, the site can be viewed from an infinite number of vantage points. You can even apply a vertical scale multiplier which serves to exaggerate relatively flat surfaces or smooth out very rough ones.



APPLICATIONS:

Land planning

Architecture

Mining

Flood routing

Retail Price:

\$350

Company Name:

**PacSoft** 

Contacts:

Address:

Telephone:

733 Seventh Ave. Kirkland, WA 98033

(206) 827-0551

Karen Miller Eric Bean

SYSTEM REQUIREMENTS				
Computer Model: HP 80 series, 9845, or 9835 *	Peripherals:			
Memory: With I/O ROM 32K	Required: Any HPGL plotter (7580,7470,9872)			
Operating System:	Recommended: Disc drive			
Other Software: Required: PacSoft TOPOGRAPHY basic sys Optional: HP38042C Surveying Vol. C or	tem other surveying software			
CUSTOMER SUPPORT				
Geographic Area Supported:				
U.S. (all regions)				
Support Services Available:				
☼ phone-in support    ☼ mail-in support      ☼ on-site consulting    □ on-site systems engineers	☐ remote dial-in ☐ program modification			
Additional Support Information and Pricing:				
Phone and mail-in support provided at no extra ch On-site consulting - \$400/day plus expenses	narge.			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site training for classes of up to people. Training is usually not request as system can be self-taught.				
Documentation Available: User's manual contains theory of operation, step-by-step instruc	of Price: \$50 ctions, One copy is			
Documentation Available in other languages, tputs.	included with the software.			
NUMBER OF INSTALLATIONS: 50+ DATE OF FIRS	T INSTALLATION: 3-81			
ADDITIONAL INFORMATION				
A demonstration package is available for a two	week on-site evaluation.			
* Check with PacSoft regarding availability on other HP mainframes.				

### RESPONSIBILITIES STATEMENT



# Referenced Software Supplier Product Summary



### HP USE ONLY

I.D. Code: 10056

Application Code: 15.31022

**Expiration Date:** 

Product Name:

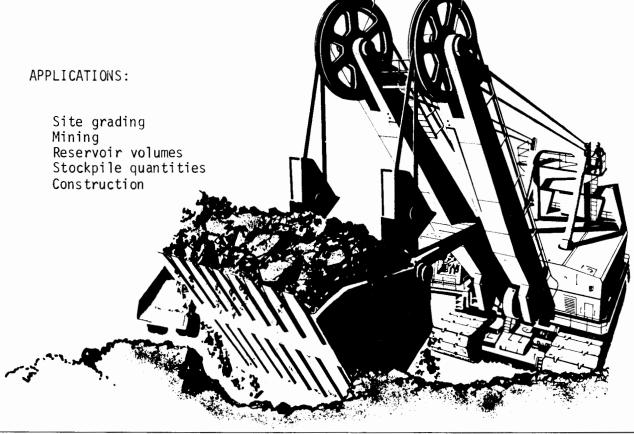
Mainframe(s):

**EARTHWORK** 

HP 80 series 9845, 9835

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

If you've ever spent hours computing material quantities, you will appreciate the speed and simplicity of the TOPOGRAPHY Earthwork program. In just minutes the system computes both cut and fill volumes between any two surfaces. Select printed or plotted output of quantity distribution, depths, or daylite lines for a complete grading plan. Shrinkage and swell factors may be applied, and you can adjust one surface up or down to find the most economical balance between cut and fill or to simulate different reservoir levels.



Retail Price:

\$850

Company Name:

*PacSoft* 

Contacts:

Address:

733 Seventh Ave. Kirkland, WA 98033

Eric Bean

Karen Miller

Telephone:

(206) 827-0551

SYSTEM REQUIREMENTS			
Computer Model: HP 80 series, 9835, or 9845 * Peripheral Required Optional Recommen	1		
Other Software: Required: PacSoft TOPOGRAPHY hasic system			
Optional: HP 38042C Surveying Vol. C or other	surveying software		
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide Canada Europe (all)   U.S. (all regions) Mexico   East Latin America (all)   South			
Support Services Available:			
	. □ remote dial-in □ program modification		
Additional Support Information and Pricing:			
Phone and mail-in support provided at no extra charge On-site consulting - \$400/day plus expenses			
CUSTOMER TRAINING/DOCUMENTATION			
On-site training for classes of up to 10 people. Training is usually not required, as system can be self-taught.	Price: \$400/day plus expenses		
Documentation Available: User's manual contains theory of operation, step-by-step instructions, and sample outputs.	Price: \$50 One copy is included with		
Documentation Available in other languages:	the software.		
NUMBER OF INSTALLATIONS: 50+ DATE OF FIRST INSTALLATION: 3-81			
ADDITIONAL INFORMATION			
A demonstration package is available for a two week o	on-site evaluation.		
* Check with PacSoft regarding availability on other HP	mainframes.		
RESPONSIBILITIES STATEMENT			



**HP USE ONLY** 

I.D. Code: 10056

Application Code: 15.31023

Expiration Date:

**Product Name:** 

Mainframe(s):

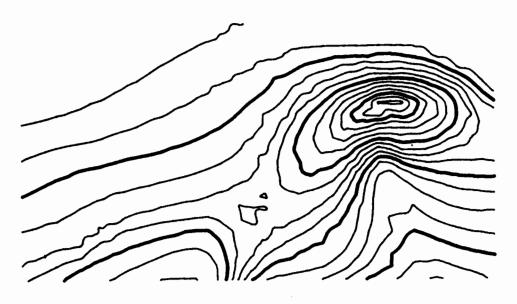
HP 80 series 9835, 9845

### **CONTOUR MAPPING**

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Imagine the advantages of automating the tedious job of computing and drawing contours. Using the PacSoft Contouring program, a finished map may be completed in as little as 15 minutes. NO OPERATOR GUIDANCE IS REQUIRED beyond selection of the contour interval and map scale.

This high-performance program offers several options for added flexibility. Both rough and smooth contours can be plotted for quick working sketches or finished drawings. Maps may be reversed for plotting on the back of transparent media. Powerful features such as labeling contours or spot elevations are accessed by simple menu selections.



Applications:

Topographic maps

Isopluvials Isohyetals Isobars Isotherms Hydrographic maps

Mining

Retail Price:

\$600

Company Name:

PacSnft

Contacts:

Address:

733 Seventh Ave.

Kirkland, WA 98033

Telephone:

(206) 827-0551

Eric Bean Karen Miller

SYSTEM REQUIREMENTS				
Computer Model: HP 80 series, System 45, or 9835 * Peripherals:				
Memory: 32K minimum	Required: Any HPGL plotter (7580,7470,9872)			
Operating System:	Recommended: Disc drive			
Other Software: Required: PacSoft TOPOGRAPHY basic s Optional: HP38042C Surveying Vol. C				
CUSTOMER SUPPORT				
Geographic Area Supported:				
Worldwide				
Support Services Available:				
☐ phone-in support ☐ mail-in support ☐ on-site systems engineers	remote dial-in program modification			
Additional Support Information and Pricing:  Phone and mail-in support provided at no extra charge.  On-site consulting - \$400/day plus expenses.				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site training for classes of up people. Training is usually not recast system can be self-taught.	quired, plus expenses			
Documentation Available: User's manual contains theory of Price: \$50 operation, step-by-step instructions, One copy is				
and sample outputs.  Documentation Available in other languages:	included with the software.			
NUMBER OF INSTALLATIONS: 50+ DATE OF FIRS	T INSTALLATION: 3-81			
ADDITIONAL INFORMATION  A demonstration package is available for a two  * Check with PacSoft regarding availability on o				
DESDONSIBILITIES STATEMENT	•			



**HP USE ONLY** 

I.D. Code: 10056

Application Code: 15.31024

Expiration Date:

Product Name:

### **TOPOGRAPHY**

DIGITAL TERRAIN MODELING

Mainframe(s):

HP 80 series 9845, 9835

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

TOPOGRAPHY offers powerful options to perform a variety of mapping functions and computations. Using only randomly distributed X-Y-Z coordinates, the system will produce finished contour maps, 3-dimensional projections, profiles and cross sections in a fraction of the time required to calculate and plot them by hand. The valuable Earthwork option computes volumes for numerous applications including site preparation, surface mining, reservoirs, and dredging operations.

Operator ease and comfort are important features of all PacSoft programs. Step-by-step instructions are displayed on the screen to guide you through program selection, data entry, and plot generation. Full editing capabilities allow you to correct mistakes or try several design alternatives without having to start from scratch. Multiple options for both input and output formats let you define how things will be done. The system adapts to your needs, not vice-versa.

Retail Price:

\$800

Company Name:

PacSoft

Contacts:

Address:

Telephone:

733 Seventh Ave.

Kirkland, WA 98033

(206) 827-0551

Karen Miller Eric Bean

SYSTEM REQUIREMENTS				
with I/O ROM  Memory: 32K  Operating System:	Peripherals: Required: none Optional: Any HPGL plotter Recommended: Disc drive			
Other Software: Required: PacSoft TOPOGRAPHY basic sys Optional: HP38042C Surveying Vol. C or	tem other surveying software			
CUSTOMER SUPPORT				
Geographic Area Supported:				
	Far East (all)			
Support Services Available:				
☼ phone-in support ☼ mail-in support ☼ on-site consulting □ on-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>			
Additional Support Information and Pricing: Phone and mail-in support provided at no extra charge On-site consulting - \$400/day plus expenses				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site training for classes of up t people. Training is usually not req as system can be self taught.	uired, plus expenses			
Documentation Available: User's manual contains theory o operation, step-by-step instruc and sample outputs. Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 50+ DATE OF FIRST	T INSTALLATION: 3-81			
ADDITIONAL INFORMATION				
A demonstration package is available for a two-week on-site evaluation.  * Check with PacSoft regarding availability on other HP mainframes.				

### RESPONSIBILITIES STATEMENT



**HP USE ONLY** 

I.D. Code: 10056

Application Code: 15.31025

Expiration Date:

Product Name:

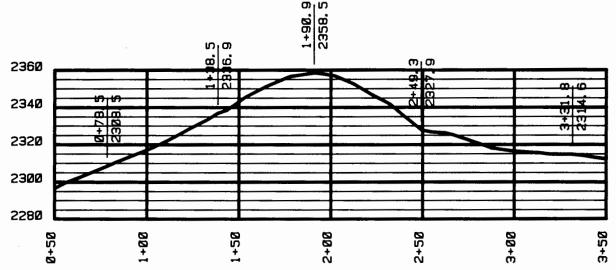
### PROFILES & CROSS SECTIONS

Mainframe(s):

HP 80 SERIES 9845, 9835

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

If frequent design changes are giving you headaches, consider the advantages of the PacSoft Profile & Cross Sections program. Regardless of how the field data was recorded (radially, from an aerail photo, etc.) accurate sections can be drawn along a baseline falling anywhere within the boundary of the modeled terrain. Cross sections will be generated at any selected interval, and are always perpendicular or radial to the baseline, even after the baseline is moved. Plot profiles on preprinted plan/profile sheets, or let the system draw the required grid. Selectable scales, line types, and labeling options are also offered for maximum productivity.



APPLICATIONS:

Road design

Mining

Site planning

Sewer design Airport design

Geophysics

Retail Price: \$500.00

Company Name:

**PacSoft** 

Contacts:

Address:

733 Seventh Ave. Kirkland, WA 98033 Karen Miller Eric Bean

Telephone:

(206) 827-0551

SYSTEM REQUIREMENTS				
or 9835 with I/O ROM Rec Memory: 32K	pherals: quired: Any HPGL plotter (7580,7470,9872)			
Operating System:	commended: Disc Drive			
Other Software: Required: PacSoft TOPOGRAPHY basic system Optional: HP38042C Syrveying Vol. C or ot	n Ther surveying software			
CUSTOMER SUPPORT				
Geographic Area Supported:				
Support Services Available:				
Ď phone-in support Ď mail-in support Ď on-site consulting □ on-site systems engineers	remote dial-in program modification			
Additional Support Information and Pricing:  Phone and mail-in support provided at no extra charge.  On-site consulting - \$400/day plus expenses.				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site training for classes of up to 10 people. Training is usually not require as system can be self-taught.  Documentation Available: User's manual contains theory of operation, step-by-step instruction and sample outputs.  Documentation Available in other languages:	d, plus expenses  Price: \$50			
NUMBER OF INSTALLATIONS: 50+ DATE OF FIRST INSTALLATION: 3-81				
ADDITIONAL INFORMATION				
A demonstration package is available for a two week on-site evaluation.				
Check with PacSoft regarding availability on other H	P mainframes.			



**HP USE ONLY** 

I.D. Code: 10047

Application Code: 15.31026

Expiration Date:

Product Name:

### HP-87 CivilSoft TOTAL PACKAGE

Mainframe(s):

HP-87A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Land Innovation HP-87 CivilSoft package is a TOTAL site design package which includes coordinate geometry, plotting, vertical geometry, text, and communication (HP-41CV) programs for surveying, civil engineering, planning, architectural and real estate companies. The user must have a knowledge of coordinate geometry to use this software.

This package is not a glorified HP-85 program, but a complete new package designed just for the HP-87. The program comes in 6 versions to drive the 7225, 7470, or 7580 plotter in configurations using 1 128K module (3200 points) or 2 128K modules (9999 points), all having the same price. The package consists of 8 complete programs:

1) MAIN PROGRAM

The main program has all the common coordinate geometry routines plus the following added features:

Traverse adjustment routines for Crandall Rule and Compass Rule.

Distances can be entered as feet and inches in traverse mode. b)

Write legal descriptions simply by inversing between points (you can insert statements within text), C) and store preambles on disk.

Complete plotting features for CRT or external plotter which includes bearing/distance, line type, d) pen change, tree type (3 types) character size controls, and plotting control features as WINDOW, AUTO and FIT instructions.

File management for point files and figure (drawing instruction) files. e)

Automatic street intersection and cul-de-sac layout. f)

Common Math solutions, Transformation, Rotation, Point re-numbering. g) h) Predetermined area, curve table, curve staking, printer control functions.

Offsets and stationing along a line or curve. i)

Complete inverse functions which include radial. Many more features. j)

2) VERTICAL PROGRAM

HYDRAULIC FEATURES pipe and open channel flow. a)

EARTHWORK FEATURES separate entry of natural and proposed ground (with plots). ь)

VERTICAL DESIGN FEATURES points stores as station and elevation. Vertical traverse, inverse, slope intersection, vertical curve layout, etc.

PLOTTING FEATURES profile plot on CRT or external plotter.

Point and drawing figures are stored on disk similar to main program.

3) PLANIMETER

This program will convert your plotter to a planimeter for area calculations.

4) ESTIMATE Prepare cost estimates using this program which also tabulates figures.

5) TEXT MANAGEMENT

Text can be stored, added, deleted, printed, or revised using this program.

6) SPANISH

Spanish coordinate and inverse using points computed in main program.

7) HP-41CV INTERFACING

Transfer points between HP-41CV and computer, store HP-41CV points on disk, and list HP-41CV programs on HP-87 display or external printer.

8) HP-41CV PROGRAMMING

Complete coordinate geometry (on bar codes) included in HP-87 package which will store points internally for general use and data communication with the HP-87.

Complete manual (in 2 volumes) furnished with programs with step-by-step instructions and examples in an easy to read and understand fashion.

DEMONSTRATION PACKAGE AVAILABLE - CALL FOR INFORMATION

Retail Price:

\$895.00

Company Name:

LAND INNOVATION

Contacts:

Rick Harrison

P.O. Box 50662

Address:

Dallas, Texas 75250-0662

Telephone:

(214) 234-6636

SYSTEM REQUIREMENTS		
Computer Model: HP-87A	Peripherals: 82905A/B Printer	
Memory: 82909A 128K Memory Module (1 for 3200 pts., 2 for 9999 pts.) Operating System:  Other Software: Peripheral package	+7225B Plotter +7470A Plotter +7580 Drafting Plotter Which plotter  82901M Disc Drive *Plotter ROM *I/O ROM *82938A HP-IL Interfa	ас
CUSTOMER SUPPORT		
Geographic Area Supported:		
X U.S. (all regions)   X Mexico	urope (all)	
Support Services Available:		
<ul><li>Ď phone-in support</li><li>☐ on-site consulting</li><li>Ď mail-in support</li><li>☐ on-site systems e</li></ul>	☐ remote dial-in ☐ program modification	
Additional Support Information and Pricing:		
Custom programming service for this pac Mini-Computer Business Systems, 2539	is obtainable through: South Gessner, Houston TX 77063 (713) 780-1642	
CUSTOMER TRAINING/DOCUMENTATION  Training Available: None Needed	Price:	
Documentation Available:  Manual provided with software	Price: \$80.00 each additional copy	
Documentation Available in other languages:		
NUMBER OF INSTALLATIONS: DA	ATE OF FIRST INSTALLATION: March, 1982	
ADDITIONAL INFORMATION		
6 OPTIONS AVAILABLE	Data collection interface using HP-41C/CV and HP-IL available from:	
011 128K Memory Module, 7225 Plotter 022 128K Memory Modules, 7225 Plotter 031 128K Memory Module, 7470 Plotter 042 128K Memory Modules, 7470 Plotter 051 128K Memory Module, 7580 Plotter* 062 128K Memory Modules, 7580 Plotter	tter 14239 Bateau ter Cypress, TX 77429 tter ter* (713) 469-7945	
*3000 point limit		
DECDONCIBILITIES STATEMENT		

#### HP USE ONLY

I.D. Code:

Application Code: 15.32001

Expiration Date:

Product Name:	Mainframe(s):
Surveying Application Pac	Series 80

#### Software Description:

The Series 80 Surveying Pac contains a group of programs chosen to aid surveyors in many of their most often encountered <u>fundamental</u> computations. It allows for fast and easy calculations, improves computational accuracy, and maintains coordinate point storage for easy recall of data. By using an executive program, the user has access between programs without losing stored data. The Surveying Pac also enables the user to maipulate up to 150 traverse points in HP-83/85 Personal Computers using 16K memory. These points can be entered, edited or recalled for future use.

Programs included in the Series 80 Surveying Pac allow the user to:

- Reduce field data for traverses, inverses and sideshots. (Slope distances and curved slides may be included.)
- Make traverse adjustments by compass, transit, or Crandall's Rule.
- Use closure routines to determine areas and distances traversed.
  - Calculate coordinate transformations.
  - Compute intersections and offsets from a point to a line.
  - Solve universal triangles.
- Calculate parameters of circular curves, horizontal curve layout, vertical curves and grades.
- Compute earthwork volume using the method of Average End Area, the volume of a Borrow Pit, or the resection points and land parcels within a predetermined area.

Most of the programs also provide the ability to plot data or layout on a Series 80 CRT or a peripheral plotter.

NOTE: HP-86/87 software offers increased data capacity and 80-column report layouts. Up to 3700 coordinate data points with 160K.

CVCTEM DECUMPAGNITO
SYSTEM REQUIREMENTS
Mainframe: HP-83/85/86/87
ROMs:
Memory: Additional Memory for HP-86/87 Optional
Peripherals:
ADDITIONAL INFORMATION

Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE PROGRAM MATERIAL IS MADE AVAILABLE SOLELY ON AN "AS IS" BASIS, AND THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH THE USER. SHOULD THE PROGRAM MATERIAL PROVE DEFECTIVE, THE USER (AND NOT HP) SHALL BEAR THE ENTIRE COST OF ALL NECESSARY CORRECTIONS AND ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. HP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THE PROGRAM MATERIAL.



# **Distributed Software Supplier Product Summary**



#### HP USE ONLY

I.D. Code:

Application Code: 16.11001 1/1/83 Expiration Date:

91753 JA (HP Integrated) 91754 JA (Non HP Integrated)

Product Name:

Mainframe(s):

CEADS-CADD Computer-Aided Design and Drafting

HP 1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Manual design and drafting tools are replaced with computerized high performance, precision instruments that can be readily learned and mastered by any designer/drafter. CEADS-CADD obsoletes the "eyeball" accuracy, low production levels, and high labor cost of manual design and drafting operations. CEADS-CADD frees the designer/drafter from the repetitive and time consuming tasks of his work. Design and drafting skills and experience expand to the highest levels of quality control production.

CEADS-CADD offers significant advantages in five key categories:

- 1. INSTALLATION/SUPPORT PHASE: CEADS-CADD is maintained current with the HP 1000 operating systems to retain the benefits of HP's well established network of service and support.
- 2. TRAINING PHASE: Two-day management course. Management remains in charge of entire investment and daily operations. Management is provided all the tools and techniques to train its entire staff.
- 3. COMPLETE TURNKEY SOLUTION IMPLEMENTATION PHASE: In one week an operator can learn the system at his/her own pace with self teaching manuals. All tools can be mastered within thirty days without requiring specialists or computer expertise.
- 4. COST/PERFORMANCE: CEADS-CADD surpasses the documented performance of the leading CAD systems and at only the one-third to one-half the comparable cost.
- 5. RETURN ON INVESTMENT: CEADS-CAD reaches the key productivity benchmarks in one-fourth to one-half the time of the leading CAD systems. Thereby the pay back period is reduced from three years plus to twelve to eighteen months.

CEADS-CAD offers a solution to the entire design and drafting industries in the following applications:

Mechanical drafting, mechanical design, assembly layouts, geometric constructions, pattern grading, architectural design, structural design, electrical-mechanical design, construction details, printed circuit boards, integrated circuit layouts, detailed schematics, piping diagrams, utility networks, wiring layouts, facilities design, graphics design.

Retail Price:

\$50,000 CEADS-CADD license fee (F-Series)

Company Name:

Holguin & Associates

Contacts:

Henry Acosta

Enrique Bustamante

Address:

5822 Cromo Drive

El Paso, Texas 79912

Telephone: (915) 581-1171

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 45, 65	Peripherals: HP 7906, 7920 or		
Memory: 256 kb high performance memory min.	7925 Disc Drives, HP 2647 or 2648 Graphic Terminals,		
(supports 1-2 graphic terminals) Operating System:	HP 7580A Plotter, HP 7970E Mag		
RTE-IVB, RTE-6/VM Other Software:	Tape, HP 2631G Printer, HP 9111A Graphic Tablet		
other contware.	-		
CUSTOMER SUPPORT			
Geographic Area Supported:			
▼ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	□ Far East (all)		
☐ East ☐ Latin America (all) ☐			
☐ South ☐ ☐ ☐			
□ West □ □ □ South Africa			
Support Services Available:			
☑ phone-in support       ☑ mail-in support         ☐ on-site consulting       ☐ on-site systems engineers	□ remote dial-in ▼ program modification		
Additional Support Information and Pricing:			
Contact Holguin for more information on support services an	d prices.		
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: Two-day course at El Pasco, Texas (On-site training upon special request)	Price:		
Documentation Available: User's Manuals, exercise books	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 850 DATE OF FIRST INSTALLATION:			
ADDITIONAL INFORMATION			
NOTES:			
<ol> <li>256 kb memory required for each pair of HP 2648A Graph allowable configuration of 8 terminals.</li> </ol>	nic Terminals; up to 1024 kb maximum		
2. Relocatable files available for support of other peripherals.			
RESPONSIBILITIES STATEMENT			

### **SOFTWARE SUPPLIER PRODUCT SUMMARY**

HP USE ONLY

I.D. Code:

Application Code: 16.11003

Expiration Date: 9/1/82

PRODUCT NAME

ILS — Interactive Laboratory System

MAINFRAME(S)

HP 1000 E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

ILS is a comprehensive set of FORTRAN programs used to investigate signals and their properties. These can be signals such as EKG traces, heart sounds, sonar signals, speech sounds, seismic pressure waves, radar reflections, etc.

The software handles both real and complex data and supports functions such as: addition, multiplication, magnitude, hard and soft limiting, phase wrapping and unwrapping, FFT and inverse FFT, coherence, and moving or exponential averaging to reduce the variance of the estimates. The ILS programs allow data scanning and manipulation, digital filtering, signal modeling (parameter estimation), spectral and cepstral analysis, plus pattern analysis/recognition. The software operates in an interactive or batch mode and makes extensive use of graphics.

ILS contains a standard set of file structures including sampled data files, analysis files, record files, and label files, which in combination allow for very efficient storage and access of numerous data types. The file conventions allow for convenient information transfer from one program to the next, and enhance the transportability of data and programs among installations.

ILS allows for numerous graphical operations such as scaled data displays, multiple calibrated data displays with user-defined grid options, scatter plots with principal component analysis option, and 3-D displays of spectra, log spectra, and spectral models.

ILS has been installed worldwide in industrial, university, governmental, and research organizations. ILS is delivered in source form along with the necessary command files to compile and link the system. The first year of maintenance is included in the price.

RETAIL PRICE: \$12,000

COMPANY NAME:

Signal Technology, Inc.

15W. DeLaGuerra

ADDRESS:

Santa Barbara, California 93101

TELEPHONE:

(800) 235-5787 (805) 963-1552 CONTACTS: Brian Montgomery

SYSTEM REQUIREMENTS		
Computer Model: HP 1000 Models 40, 45	Peripherals:	
Memory: 56k bytes minimum		Graphics terminal
Operating System: RTE-IVB		
Other Software: FORTRAN 4X		
CUSTOMER SUPPORT		
Geographic Area Supported:		
Worldwide		
■ phone-in support	• •	☐ remote dial-in
■ on-site consulting □ on-site	e systems engineers	■ program modification
Additional Support Information and Pricing: P. first year; \$1125/yr thereafter. On-site	hone-in and mail-in support consulting and program mod	ed included in base price for diffication requires quote from STI.
CUSTOMER TRAINING/DOCUMENTATION		
Training Available: Upon request		Price: Special quote
Documentation Available.  User's Guide Programmer's Guide Training Manual Documentation Available in other languages:	uide	Price: \$50.00 \$20.00 \$15.00
NUMBER OF INSTALLATIONS: 188	DATE OF FIRST IN	ISTALLATION: March 1978
ADDITIONAL INFORMATION		
RESPONSIBILITIES STATEMENT  This software was developed by an independent so responsible for its software and support services. HP any and all liabilities for and makes no warranties,	is not the manufacturer or co-develop	per of such software or support. HP disclaims

information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.



### REFERENCED SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

SINCLAIR TRIPLET # 2

Application Code: 16.21001

Expiration Date:

PRODUCT NAME

# OSLO-45G

A PROGRAM FOR OPTICAL DESIGN

MAINFRAME(S) 9845B

(100 or 200 Series)

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

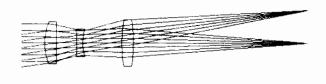
OSLO-45G is an optical design program written for the Hewlett-Packard 9845T desktop computer. It is meant to provide a stand-alone optical design capability that can be used to help solve the majority of optical design problems. The program carries out complete first and third-order analyses of systems, exact ray tracing, geometrical image analysis including spot diagrams, radial energy distributions, and transfer functions. It has two optimization sections, one based on paraxial and Seidel aberrations, and one on exact ray trace data. An extensive capability is provided for lens entry and updating, including a glass catalog and both internal and external lens libraries for saving lenses. Lenses analyzed by the program can contain up to fifty surfaces, and can have either finite or infinite focal length. Individual surfaces can be spherical, conic, aspheric, toric, or gratings, and can be tilted or decentered in the meridional plane.

A major emphasis has been placed on the use of graphical display for program output. Routines are included that draw lens pictures, ray trajectories, rayintercept and OPD curves, field sag plots, lateral color curves, distortion curves, knife-edge scans, radial energy distributions, transfer functions, and spot diagrams. Graphical output can be obtained on the 9845 CRT, the internal printer, or on a peripheral plotter. Flexibility in picture size and format allows users to tailor graphical output to their own needs, whether they be engineering drawings, reports, proposals, or overhead projector transparencies.

OSLO-45G has been written specifically to help solve the most commonly encountered problems in geometrical optical design. To handle problems that are too complicated for OSLO-45G, the program contains a terminal emulator that allows the 9845 to be connected over a telephone line to a larger computer.

SINCLE	ILE INTELET	* 4			
SURF	RADIUS	THICKNESS	GLASS	APERTURE	
OBJ. PUP.		1.0000E+10 -7.502539	AIR	0.0000	
2	23.782	5.000000	SK4	9.0000	
3	545.241	3,198345	AIR	9.0000	
4	0.000	5.618775	AIR	6.0000	
5	-56.933	2.500000	SF2	6.0000	
6	20.535	16.800482	AIR	6.0000	
7	64.099	5.000000	SK4	10.0000	
8	-61.815	74.504000	HIR	10.0000	
9	0.000	0.000000	AIR	0.0000	
*PARAX	CONSTANTS				
WV 1					
E	FL	₽F	LENG	ГН	TMAG
99.9	96136	74.504000	38.117	7602	000000
F	NBR	PIV	GI	1	PTZRAD
6 -	000000	-1 115149	14 049	2457 - 24	6 000470

Typical printer output from OSLO-45G.



SINCLAIR TRIPLET #4

Typical CRT graphical output from OSLO-45G.

RETAIL PRICE: \$2400 + \$1200/year license fee

COMPANY NAME:

Sinclair Optics

20 North Main Street Pittsford, New York 14534 Telephone (716) 381-9100

ADDRESS: TELEPHONE:

CONTACTS:

Sales Department

SYSTEM REQUIR	EMENTS			
Computer Model.	9845B (100 or 200 Serie	Peripherals:	9872 Plotter and	
Memory:	187 Kbytes minimum		9885/9895 Flexible Disc supported but not required.	
Operating System:	N/A			
Other Software:	N/A			
CUSTOMER SUPP	PORT			
Geographic Area Sup	pported:			
☐ U.S. (all regions)	☐ Latin America (all)			
Support Services Ava	ailable:			
☐ phone-in support ☐ on-site consulting	□ mail-in si □ on-site s	upport systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>	
Training Available:  Documentation Available	Sinclair Optics periodically Optical Design using Desk	-	Price:	
Documentation Availa	able in other languages: All	documentation in English	n only.	
NUMBER OF INST	ALLATIONS:	DATE OF FIRST IN	STALLATION:	
ADDITIONAL INFO	PRMATION			
	Please write or call t	for data sheets and/or fur	ther information.	
RESPONSIBILITIES		vers supplier for operation on UP	computer systems. The supplier is solely	

responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.



HP USE ONLY

I.D. Code:

Application Code: 16.21002

Expiration Date:

Product Name:

Mainframe(s):

DRAFTING PACKAGE-1 (DP-1)

9845B, 9845C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DP-1 (Drafting Package-1) software provides a straight forward, easy to use, two-dimensional drafting system laid-out for draftsmen, designers and engineers. DP-1 uses symbols and names that they are accustomed to in their daily work.

The software contains the generally accepted line-types, line functions, circles, arcs and dimensioning capabilities that the draftsmen routinely faces.

DP-1 requires no computer language, no special training and no "computer-type" personnel.

### FEATURES/BENEFITS

- ALL HP HARDWARE Single Source, Recognized Quality, Worldwide Maintenance - Future interconnect potential to larger HP networks.
- Off-the shelf hardware Totally unmodified hardware assures the customer of rapid delivery time and the ability, when maintenance might be required, to have it performed with standard stock spares, effected promptly and at standard rates.
- . Com-Code Software Customer has a direct link through his software license to the developer of the software package. Customer receives an immediate response and has an open channel to provide feed-back and requests for enhancements.
- Rapid Learning Curve DP-1 has no requirement for learning a computer language and therefore, requires no special operators. Users of the system become productive within weeks and this in turn developes a rapid return on investment for the client company.
- Software Support Program Customer, at all times, is running the Most Current Version of the software - As new peripherals from HP are introduced, software will become available to allow the customer to take advantage of the newest advances in the computer field by Hewlett-Packard.

Retail Price:

\$13,500.00 Basic 5 Year Renewable License

Company Name: Com-Code

Contacts:

J. Michael Abshier

Chris Rader

Marketing

Address:

3989 Research Park Drive Ann Arbor, Michigan 48104

Telephone:

(313) 665-8811

SYSTEM REQUIREMENTS	
Computer Model: 9845B 9845C	Peripherals: Plotters: B, C or D, usually
Memory: 187K bytes R/W	the HP 7580A
Operating System: BASIC	Disc: usually dual floppy 9895A
Other Software: Drafting Package-1 DP-1	Digitizer: usually 9111A
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ U.S. (all regions)       □ Mexico       □         □ East       □ Latin America (all)       □         □ South       □       □         □ Midwest       □       □	pe (all)
X on-site consulting X on-site systems eng	
Additional Support Information and Pricing: Software Support Program \$195/month - Min  CUSTOMER TRAINING/DOCUMENTATION On site training Training Available: On site training with Software Home office, 5 people per sessi by schedule only Documentation Available: Operator's Manual, Tablet Menu, Keyboard Diskette Documentation Available in other languages:	\$975 per day +T/E Support Program Price: \$475 + T/E on, as available  NO CHARGE Price:
NUMBER OF INSTALLATIONS: 12 DATE	OF FIRST INSTALLATION: 1981
ADDITIONAL INFORMATION	
Arrangements are available for multiple site there are provisions for sharply reduced feet customer contact personnel. Corporate discover long periods of time are available for purchasing and long term contract requirem.  Personnel are available for presentations and prequalified groups.	s, depending on site locations and ount schedules for cumulative buys large corporations with central ents.
DECDONCIBILITIES STATEMENT	

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no

# **Software Supplier Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 16.21003

Expiration Date:

Product Name:			Mainframe(s):		
			9836	9826	
OPTICAL CONCENTRATORS OF SOLAR ENERGY			98 <b>4</b> 5B	9845C	
	RIPTION: (please begin with a prod r-specific details, major features and		clude basic prod	uct	
	ng programs design the concen		tics accordin	a to user	
	riteria, and then analyze the	_			
	c collectors using Monte Carl	<del>-</del>			
_	ed information and combinatio		_	4	
SOLAR OPTICS	S UTILITIES (required for all	. solar programs :	listed below)	\$ 400.00	
	LINEAR REFLECTIVE S	CONCENTRATION	RS		
Flat Fresne	l Mirror with a single cell s			\$1425.00	
	rough with a single cell stri	_			
	eflector Shape (Single Bounce	=			
	rough with a dual cell string				
Parabolic t	rough with a reflective CPC s	secondary		\$1975.00	
Arbitrary R	eflector Shape (Single Bounce	e) with a dual ce	ll string	\$2175.00	
	LINEAR FRESNEL LENS				
	lat Grooves				
	urved Grooves				
	Arched Lens Flat Grooves				
Aspherically	y Arched Lens Flat or Curved TWO DIMENSIONAL REFLECTI			\$18/5.00	
Spherical M	irror			\$1125.00	
	irror				
1	***********************				
ì	ymetrical Reflector Shape (Si				
	TWO DIMENSIONAL FRESNEL I	= '			
Flat Lens F	lat Grooves Round Cell			\$ 875.00	
Flat Lens C	urved Grooves Round Cell			\$1025.00	
Flat Lens F	lat Grooves with N Section Co	one Secondary, Ro	und Cell	\$1425.00	
	urved Grooves with N Section	- ·			
1	Flat Lens Flat Grooves with CPC Secondary, Round Cell\$1825.00				
	Flat Lens Curved Grooves with CPC Secondary, Round Cell\$1975.00				
<b>}</b>	Flat Lens Flat Grooves Square Cell\$ 875.00				
	Flat Lens Curved Grooves Square Cell\$1025.00  Flat Lens Flat Grooves with Cone Secondary, Square Cell\$1425.00				
				I.	
Flat Lens Curved Grooves with cone secondary, Square Cell\$1575.00 Spherically Domed Lens Flat Grooves\$1225.00					
Aspherically Domed Lens Flat Grooves or Curved Grooves\$1875.00					
Retail Price:					
See above. If you order for the 9845B, be sure to specify which option you have.					
Company Name:	L.W. James and Associates	Contact	 S:		
	1525 East County Road 58				
Address:	Fort Collins, CO 80524	Dr.	Lawrence W.	James	
Telephone:	(303) 484-5296	9-!	5 Weekdays (M	ST)	

SYSTEM REQUI	REMENTS			
Computer Model:	9845 B/C	9836/9826	Peripherals:	
Memory:	187 K bytes	256 K bytes		
Operating System	n:	BASIC 2.0		
Other Software:				
CUSTOMER SU	PPORT			
Geographic Area	Supported:			
☑ Worldwide ☐ U.S. (all regions ☐ East ☐ South ☐ Midwest ☐ West	☐ Latin America (a			
Support Services	Available:			
☑ phone-in suppo ☑ on-site consult	ort 🗆 m	nail-in support n-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>	
On site \$80,	rt Information and Prici			
CUSTOMER TRA	AINING/DOCUMENTA	TION		
Training Available	: your location		Price: \$80/hour + travel	
Documentation A	vailable:		Price:	
in 1	English.			
Documentation A	vailable in other langua	ges:		
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 1979				
ADDITIONAL INFORMATION				
In use at Sandia Laboratories and several leading solar companies.				
Versions which use the H.P. 9845 coupled to the Analogic AP445 array processor will be available in September 1982.				
9845C Versions use color in their graphic displays of results. All programs make extensive use of graphics.				
RESPONSIBILITIE	ES STATEMENT			

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 16.21004

Expiration Date:

Product Name: Mainframe(s):

CONCENTRATOR SOLAR CELL MODELLING

9836 9826

9845B 9845C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

These solar cell models take a short circuit current flux density file which is generated by any of our OPTICAL CONCENTRATOR programs, and use it to calculate a cell I-V curve. Any pair of parameters in the model may be varied in order to optimize the cell or grid design for the actual illumination which it will see when placed in an optical concentrator. Factors such as doping levels, junction depths, and grid pattern geometry may be optimized for use in a particular concentrating system. The output shows the I-V curve at the semiconductor surface, under the ohmic contacts, on top of the ohmic contacts, and at the external connection to the cell, so cell I\*R losses may be easily identified and minimized. These programs may also be used in conjunction with any of our OPTICAL CONCENTRATOR programs to optimize the design of an optical concentrator for use with a given cell.

Contact us for more details on any programs of interest, and for information on combination pricing discounts.

Circular Active Area Planar Silicon Cell with Radial Grid Lines......\$1975.00

Circular Active Area Planar GaAs Cell with Radial Grid Lines.....\$1975.00

Rectangular Active Area Planar Silicon Cell with Linear Grid Lines.....\$1975.00

Square Active Area Si Cell with Linear Grid Lines Ending on Diagonals..\$2575.00

Retail Price:

See above.

Company Name: L. W. James and Associates

1525 East County Road 58

Fort Collins, CO 80524

Contacts:

Dr. Lawrence W. James

Telephone:

Address:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIREMENTS					
Computer Model: 9845 B/C 9836/9826	Peripherals:				
Memory: 187 K bytes 256 K bytes					
Operating System: BASIC 2.0					
Other Software:					
CUSTOMER SUPPORT					
Geographic Area Supported:					
□ U.S. (all regions)       □ Mexico         □ East       □ Latin America (all)         □ South       □         □ Midwest       □	ope (all)				
Support Services Available:					
☑ phone-in support    ☐ mail-in support    ☐ remote dial-in      ☑ on-site consulting    ☐ on-site systems engineers    ☒ program modification					
Additional Support Information and Pricing:					
On site \$80/hour + travel					
CUSTOMER TRAINING/DOCUMENTATION					
Training Available:	Price:				
at your location	\$80/hour + travel				
Documentation Available:	Price:				
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 1981					
ADDITIONAL INFORMATION					
In use at Sandia Laboratories.					
Versions which use the 9845 coupled to the Analogic AP445 array processor will be available in September 1982.					
RESPONSIBILITIES STATEMENT					

# **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 16.21005

**Expiration Date:** 

Product Name:

Mainframe(s):

MULTI-LAYER DIELECTRIC OPTICAL FILTER DESIGN

9836

9845B

9826

9845C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This software package contains a series of programs which calculate the transmission and reflection of multi-layer dielectric filters with an increasing degree of accuracy and sophistication. You may use them for something as simple as calculating the effect of a quarter wave coating on the transmission of a piece of glass, or as complex as designing a 30-40 layer bandpass filter. All programs use the complex matrix multiplication technique to calculate optical properties as a function of wavelength (or photon energy). Some are extremely fast (by using a dielectric constant which is independent of wavelength or a simple linear function of photon energy) and allow rapid design interaction with the user. Others use tables of actual optical constants, and run more slowly, but give very accurate results which allow final optimization of a design. The most complex program allows the computer to optimize a design by tweaking layer thicknesses to maximize a criteria which the user specifies.

Some typical applications to which these programs might be put:

Design of dichroic filters for color separation or color photographic printing.

Design of antireflection coatings for optics.

Design of antireflection treatments for solar glazings.

Design of antireflection coatings for photovoltaic cells.

Design of "heat mirrors" or "cool mirrors".

Retail Price: \$795

Company Name: L. W. James and Associates

Contacts:

Address:

1525 East County Road 58 Fort Collins, CO 80524

Dr. Lawrence W. James

Telephone:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIR	REMENTS				
Computer Model:	9845 B/C	9836/9826	Peripherals:		
Memory: 1	.87 K bytes	170 K bytes			
Operating System	:	BASIC 2.0			
Other Software:					
CUSTOMER SUP	PORT				
Geographic Area S	Supported:				
Worldwide					
Additional Support Information and Pricing:  CUSTOMER TRAINING/DOCUMENTATION					
Training Available:	:		Price:		
Documentation Av			Price:		
in Engli					
Documentation Av	ailable in other lar	guages:			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 1979					
Requires data files generated by the user of the optical coefficients vs wavelength of the materials to be used.					

# Software Supplier Product Summary



#### HP USE ONLY

I.D. Code:

Application Code: 16.21006

Expiration Date:

Product Name:

RDI V Roll Design System

Mainframe(s):

9845

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

RDI V is a CAD/CAM System designed specifically for the Roll Forming Industry. Roll form tooling design is a tedious, time consuming effort requiring numerous calculations and drawing. The RDI V Systems relieves the designer of this burden, allowing him to concentrate on the design not calculating and drawing. The RDI V System includes many benefits from a users standpoint. First, the program doesn't require the operator to have any special computer knowledge. A basic understanding of trigonometry and roll design is all that is necessary. Second, there are numerous prompts in plain English that guide the operator through all phases of the design process. Third, all common and most not so common errors are trapped and a message is displayed telling how to correct the problem. Finally, use of the special function keys and interactive graphics makes the input of information quick and easy. All of these features combine to make a flexible and easy to use design package.

Also, the many different output options helps the designer to make the best decisions. These include Individual Station Profile Plots, a "Flower Plot", or a plot of all the stations superimposed on each other, a Material Flow Plot, and a complete description of the part at each station in cartesian coordinates. In addition many options are provided for the orientation of the part, the type of roll machine being designed for, and many other parameters.

First, all of the information describing the design is sotred on tape/or disc, providing a permanent record of your designs. Second, the previous designs may be recalled and modified into new designs. Finally, the RDI Quick Task Program utilizes and stored information to automatically generate N/C Tapes for N/C Equipment. No manual programming is necessary. Quick Task does it all automatically. All of these features help to complete the total design capability of the RDI V System.

System features are the ability to handle up to twenty-four stations, either English or metric unit systems, and flexibility in the hardware configuration. The system may be based on either a tape or floppy disc system with at least 186k of memory. Also, any number of Hewlett Packard output devices are supported, from an internal thermal printer up to the 7580A Drafting Plotter. You can also start out small and easily expand the system at any time.

\*\*(over)

Retail Price:

\$20,000 - 39,500 (depending on configuration)

Company Name:

Design Data Systems

Contacts:

Fred Krause or

Address:

5270 North Park Place, N.E.

Kevin Kupka

Telephone:

Cedar Rapids, IA 52402

(319) 373-1571

### SYSTEM REQUIREMENTS Computer Model: 9845 B/C Peripherals: Mass Storage Device (tape or disc) Output Device Memory: 186k (thermal printer and/or plotter) Operating System: Standard 9845 Other Software: None CUSTOMER SUPPORT Geographic Area Supported: □ U.S. (all regions) □ Mexico Support Services Available: Ď phone-in support ☐ mail-in support ☐ on-site consulting ☐ on-site systems engineers ☐ remote dial-in x program modification Additional Support Information and Pricing: On site consulting on a fee basis (\$250.00 to \$750.00 per day) **CUSTOMER TRAINING/DOCUMENTATION** Training Available: On-site Price: \$750/per day plus expenses. In-house No Charge Price: Documentation Available: Manual & Sample Job No Charge Documentation Available in other languages: Yes NUMBER OF INSTALLATIONS: 6 DATE OF FIRST INSTALLATION: January 1979 **ADDITIONAL INFORMATION** \*Note: As of April 10, 1982 the company name will be changing from Roll Data of Iowa, Inc., to Design Data Systems, Inc. \*\*Con't- All of these features combine to provide a comprehensive CAD/CAM System that is easy to use, saves a great deal of time, and is the most complete and flexible system available.

#### RESPONSIBILITIES STATEMENT

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 16.21007

**Expiration Date:** 

Product Name:

UDRAW

Mainframe(s): 9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### GENERATE PROFESSIONAL QUALITY DRAWINGS

### TO YOUR FORMAT !

The UDRAW program provides you with the means to easily and quickly generate professional quality drawings to your format by using your 9845 desktop computer. The user is offered 3 primary user-interface options; 9845 keyboard, Light Pen or 9111A Graphics Tablet. This program enables you to draw and edit graphs, charts, sketches, etc., including associated text, and to store/retrieve them, all with ease and flexibility. A major feature is the extensive format control provided to the user.

Included in the many features and operations available is the ability to perform regression analyses of selected inputs, and plot the regression functions. In addition, when the optional HP 9111A Graphics Tablet is used, the format flexibility enables the use of a special "trace" mode to easily capture, edit, plot and store drawings already in existence, which may not have been prepared using the UDRAW system.

#### **FEATURES**

- easy to use
- menu driven
- friendly interface
- regression analyses
- easy editing capability
- extensive format flexibility
- professional quality drawings
- 3 rubberband modes, including user-defined
- composition, e.g. move, rotate, reduce, enlarge
- capture, edit and analyze existing hard-copy material
- compatible with most HP 9845B/C configurations (187K mem)
- 3 user interfaces: keyboard, Light Pen or Graphics Tablet
- compatibility with the HP 9872A/C/T and HP7580A plotters

Retail Price: \$1000 in USA

Company Name:

Contacts:

SPARACINO ASSOCIATES, INC.

175 Blackberry Drive

Robert R. Sparacino

Address:

Stamford, CT 06903

Telephone:

(203) 329-2256

SYSTEM REQUIR	REMENTS				
Computer Model:	9845B/C	UD 00/5D/	Periph	nerals: (optional)	
Memory:	187K	HP 9111A	Graphics Ta	blet (optional) Plotters (optional)	
Operating System:	I/O ROM	Disk Driv	e (optional	.)	
Other Software:	Graphics ROM (	9845B OF 9	845C OF 984	5 Enhanced Graphics)	
CUSTOMER SUP	PORT		N		
Geographic Area S	supported:				
■ U.S. (all regions □ East □ South □ Midwest □ West	□ Latin America (all	)	ope (all)		
Support Services A		il-in support		☐ remote dial-in	
on-site consulting	ng 🗆 on	site systems en	gineers	☐ program modification	
Additional Support Information and Pricing:					
	INING/DOCUMENTAT				
Training Available:	None needed	•		Price:	
Documentation Available: Provided with User Instruction Manual: Four-page brochure & samples available upon request.  Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 10 DATE OF FIRST INSTALLATION: Feb. 1982					
ADDITIONAL INFORMATION					
Package includes: one program tape, one Special Function Key overlay, and a User Instruction Manual.  Note: The UDRAW programs are secured in order to prevent them from being copied by unauthorized users. UDRAW will load and run normally when loaded from the original tape cartridge, or can be loaded from disk as long as the original cartridge is in the tape drive. When loading from disk, no access to the tape is required, so tape wear is negligible.					
RESPONSIBILITIES STATEMENT					

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 16.21008

Expiration Date:

Product Name:

PLOT UDRAW UTILITY

Mainframe(s): 9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### A PLOTTING UTILITY FOR THE UDRAW DRAWING SYSTEM

The purpose of the **PLOT UDRAW UTILITY** program is to access drawing files created by the **UDRAW** drawing system, and create a professional quality hard-copy color plot of the drawing contained in such a file using an HP 9872 or 7580A plotter, thereby enabling independent off-line plotting. The program provides the same plotting capability that is available in **UDRAW** plus the ability to draw all text using a 'Smooth' font in addition to the 'Roman' font available in **UDRAW**.

Upon accessing a UDRAW drawing file, the drawing contained in it will be plotted on the CRT with the text drawn using the conventional 9845 graphics font, and this CRT display can be dumped to the HP 9845 Thermal Printer. At the user's request, the drawing will be plotted on the external plotter with all of the text drawn using either the conventional 9845 graphics font, a 'Roman' font or a 'Smooth' font. With the exception of this ability to select font, no drawing editing is possible with this program.

### **FEATURES**

- independent off-line plotting of UDRAW drawings without requiring the UDRAW program
- an additional 'Smooth' font is available for all text
- plotting time is substantially reduced when using the
   'Smooth' font

Retail Price:

\$250 in USA

Company Name:

Contacts:

SPARACINO ASSOCIATES, INC.

Address:

175 Blackberry Drive Stamford, CT 06903

Robert R. Sparacino

Telephone:

(203) 329-2256

SYSTEM REQUIR	KEMEN 15					
Computer Model:	9845B/C	Pe HP 9872A/C/T Plott	ripherals:			
Memory:	187K		Plotter (optional)			
Operating System:	Graphics ROM		845 Enhanced Graphics)			
Other Software:	1) O ROM					
CUSTOMER SUP	PORT					
Geographic Area S	Supported:					
✗ U.S. (all regions East South Midwest	Latin America (					
Support Services A	Available:					
phone in suppo on-site consulti	rt 2.1 ng	mail-in support on-site systems engineers	<ul><li>remote dial-in</li><li>program modification</li></ul>			
Additional Suppor	t Information and Pric	ring:				
CUSTOMER TRA	INING/DOCUMENT	ATION				
Training Available:	None neede	eđ.	Price:			
Documentation Available: Provided with User Instruction Manual.						
Documentation Av	vailable in other langu	ages:				
NUMBER OF IN	STALLATIONS:	DATE OF FIRST I	INSTALLATION: Aug. 1982			
ADDITIONAL IN	FORMATION					
Facktore in	roluĝes: one 1	cropram tape and a Us	ser Instruction Manual.			
trevert i UTILITY to take dark	t from beind Fill load and ridde, or och idda im in ti	coried by unauthoriz run normally when lo be loaded from disk	s secured in order to sed users. PLOT UDRAW reded from the original secured from disk, no ar is neclicible.			
RESPONSIBILITIE	S STATEMENT					

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 16.21009

Expiration Date:

Product Name:

XY CHART UDRAW UTILITY

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### GENERATE XY CHARTS USING MANUAL OR DATA FILE INPUTS

The XY CHART UDRAW UTILITY, which is part of the UDRAW drawing system, enables you to prepare an XY chart compatible with and accessible by the UDRAW program utilizing numerical data entry (manual or data file) as a complement to the digitization data entry mode of UDRAW. Secondarily however, it may be used as a standalone XY chart generator if the extensive graphics capabilities and features of UDRAW are not necessary to achieve your desired results. Users who do not have UDRAW may obtain a hard-copy color plot by using the PLOT UDRAW UTILITY.

Data for up to 5 separate curves may be entered, with up to 200 points per curve. In addition, for each curve you may specify a Plotting Symbol appearing at each point, whether or not the points should be connected, the line type and the color. The data entered will be plotted and displayed with respect to axes defined by the user, and this chart can be dumped to the HP 9845 Thermal Printer. At the user's request, the program will create a UDRAW drawing file containing the complete chart, permitting subsequent access via UDRAW thereby enabling the user to further add to (e.g. regression functions derived from the entered data), edit, compose and/or make a professional quality hard-copy color plot of the chart on an HP 9872 or 7580A plotter.

#### **FEATURES**

- up to 5 separate curves with up to 200 points/curve
- flexible data entry modes

manual

direct access of user-created data files

& HP statistics software library data files indirect access of HP 45 IMAGE/QUERY data base files

- data file creation for future access and/or editing

Retail Price:

\$500 in USA

Company Name:

SPARACINO ASSOCIATES, INC.

Contacts:

Address:

175 Blackberry Drive Stamford, CT 06903

Robert R. Sparacino

(203) 329-2256

Telephone:

SYSTEM REQUIR	EMENTS				
Computer Model:	9845B/C Disk	Peripherals Drive (optional)	5.		
Memory:	187К	Dille (opelendi)			
Operating System:	Graphics ROM (9845B	or 9845C or 9845 E	nhanced Graphics)		
Other Software:					
CUSTOMER SUPI	PORT				
Geographic Area S	upported:				
<ul><li>₩ Worldwide</li><li>□ U.S. (all regions)</li><li>□ East</li></ul>	: Latin America (all)		Far East (all)		
<ul><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>		South Africa	Australia/N.Z.		
Support Services A	vailable:				
□ phone-in suppor     □ on-site consultir		port lems engineers	remote dial-in program modification		
Additional Support Information and Pricing:					
CUSTOMER TRA	INING/DOCUMENTATION				
Training Available: None needed. Price:					
Documentation Available: Provided with User Instruction Manual.					
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 3 DATE OF FIRST INSTALLATION: Eug. 1980					
ADDITIONAL INFORMATION  Fackage includes: one program tape and a User Instruction Manual.  Note: The XY CHART UDRAW UTILITY program is secured in order to trevent it from being copied by unauthorized users. XY CHART UDRAW UTILITY will load and run normally when loaded from the					
crininal tape cartridge, or can be loaded from disk as love as the primital capabildes in in the tape drive. Then loading from disk, no access to the tape is required, so tape wear is neclicible.					

### RESPONSIBILITIES STATEMENT



### HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

16.22001

Mainframe(s) 9845B/C

Program Title

Engineering Graphics System/45

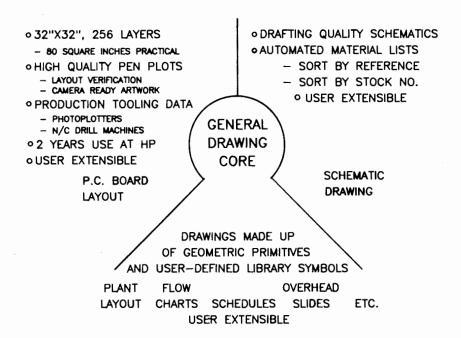
### Program Description

Created for electronic circuit and printed-circuit board designers, HP Engineering Graphics System/45 (EGS/45) helps increase individual productivity - saving up to 50% of the required PCB design and drafting time compared to manual methods.

EGS/45 is available either as a complete package (98300A) or as individual modules: a general

drawing core, a schematic drawing module, or a PC board layout module.

### ENGINEERING GRAPHICS SYSTEM/45



#### General Drawing Core (98301A)

With this module, the designer can create engineering drawings with primitive elements - lines, circles, rectangles, polygons, arcs, and text via user-definable screen menus. Groups of primitives can be named, added to the menu, and stored on mass media as recallable library parts. These parts then can be scaled, rotated, or mirrored when being added to a subsequent drawing.

The primitive elements and library parts are viewed on the CRT's drawing area. This drawing area can be thought of as containing up to 256 overlapping transparent layers, each containing a matrix of 900 million grid points that align the drawing elements. To meet the resolution required by the drawing, the user can select the number of grid points.

Screen editing commands allow copying, repeating, or moving objects on the CRT screen, as well as stretching lines, zooming, panning, and other time-saving functions. With other commands, the designer can specify line width, selectively displaying or plotting layers and grouping sets of parts for storage and reuse.

Some general drawing core applications include producing overhead slides, schedules, floor plans, and simple mechanical drawings. This core is required to use the other modules.

### Schematic Drawing Module (98302A)

Combined with the general drawing core, this module produces electronic schematics and automatically generates material lists. Common electronic symbols are supplied as library parts. The user can modify and add to the symbol library in order to customize it. Appropriate library symbol modification also enables using this software to produce other types of diagrams such as piping layout systems.

### PC Board Layout Module (98303A)

This module supports interactive layout or digitizing of multilayer boards up to 32 by 32 inches with one mil resolution. It then automatically generates tooling outputs used in PC board manufacturing. The user can obtain plots to verify layout accuracy; paper tapes to feed numerically controlled, board-drilling machines; and magnetic tapes to drive photo plotters. Production drawings such as assembly and drill drawings are also available.

Users also can write their own routines in BASIC to process drawings created by the general drawing core or either of the modules. When written according to design rules, there user routines fit with the program structure and appear to be additional EGS/45 modules.

The recommended hardware system for use with EGS/45 includes an HP 9845C desktop computer, option 275; and HP 98438A assembly execution ROM and HP 9111A graphics tablet; an HP 7580A drafting plotter; and a 7908 Winchester disc.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B or C, Option 175 or 275 (or equivalent)

**Price:** \$10,000

**HP Software Part Number:** 98300A - complete EGS/45 Software

Memory Options: 449K bytes minimum

**ROMs:** Graphics, I/O, Mass Storage, Assembly Execution

**Peripherals:** Required: 9111A or 9874B; 9895 or 7908 or 9706 or 7920

or 7925; Supported but not required: 7580, 9872, 7225, 9884A, 7970E, all alpha printers and data communications

supported by the 9845.

Comments:

Contact your local HP Sales Office for additional information



**HP USE ONLY** 

I.D. Code: 10038

Application Code: 16.31001

Expiration Date:

Product Name:

**OSLO-85** 

A Program for Optical Design Using the HP-85 Computer Mainframe(s):

HP-85 or HP-83

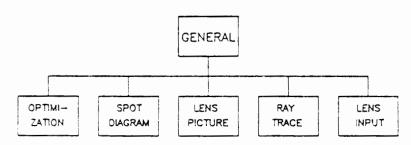
**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

OSLO-85 is an optical design and analysis program written for the HP-85 desktop computer. It is meant to be used by students, optical engineers, and others who need the capability to design and evaluate a wide variety of optical systems, but who are not involved with everyday lens design. To meet this need, exceptional flexibility has been built into the program. Any surface of the system can be tilted and decentered, and can have a shape that is aspheric or toric. Up to 50 such surfaces can be accommodated. In the case where the system has spherical surfaces on a common axis, OSLO-85 can handle up to 100 surfaces. Evaluation performed by the program includes paraxial ray tracing, exact ray tracing, spot diagram analysis, and computation of aberration coefficients.

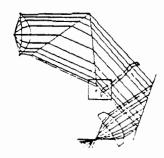
The optimization portion of OSLO-85 allows users to design systems using a merit function of their own choosing, based on either optical path differences or transverse ray displacements.

The most important feature of OSLO-85 is the friendly interaction between the user and the program. A special multicommand operating system allows users to preprogram sequences of commands and store them on disc for execution whenever desired. Extensive use is made of graphics, both on the CRT and on an external plotter, including zoom graphics that allow one to make measurements from CRT images. These and many other features make OSLO-85 an exceptionally useful tool for students, engineers, and scientists working in optics.

#### ORGANIZATION OF OSLO-85



OSLO-85 consists of several dozen procedures useful for designing and evaluating optical systems, grouped to form a general control program and five subprograms.



The above system contains a lens with parabolic surfaces, a prism, an aspheric plate, a grating, and a toric lens.

Retail Price: \$3600.00

Company Name: SINCLAIR OPTICS, INC.

Contacts: Douglas Sinclair

Address:

20 North Main Street Pittsford, NY 14354

Telephone:

(716) 381-9100

SYSTEM REQUIREMENTS	82902M (or 82901M) Disc Drive with
Computer Model: HP-85 or HP-83	Disc Drive with  Peripherals: 82937A interface
Memory: 82903A 16K Memory Module	7225A/B Plotter with
Operating System:	17601A Personality Module optional
Other Software:	
00085-15001 Mass Storage ROM and 00085-15002 Plot	ter/Printer ROM required
CUSTOMER SUPPORT	
Geographic Area Supported:	
Support Services Available:	
□ phone-in support □ mail-in support □ on-site systems engineers	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>
Additional Support Information and Pricing: Consultation services are available on a contra  CUSTOMER TRAINING/DOCUMENTATION  Training Available:	ct basis.  Price:
Sinclair Optics periodically offers a course on Computers. A brochure is available upon reques Documentation Available: Instruction manual supplied with program contai examples, and background notes. Approx. 300 pa Documentation Available in other languages:	Optical Design Using Desktop t. Price: ns introduction, operating guide,
NUMBER OF INSTALLATIONS: DATE OF FIR	RST INSTALLATION:
ADDITIONAL INFORMATION  To obtain the OSLO-85 program, the Software Licenthe purchase order. The agreement provides either use the program, and describes maintenance policing Materials supplied with the License Agreement are disc, a back-up disc, and instruction manual.  Additional technical information, data sheets, and License Agreement may be obtained by writing or of the state of the supplied with the License Agreement may be obtained by writing or of the supplied with the License Agreement may be obtained by writing or of the supplied with the License Agreement may be obtained by writing or of the supplied with the License Agreement may be obtained by writing or of the supplied with the License Agreement may be obtained by writing or of the supplied with the License Agreement are supplied w	er term or permanent licenses to les, restrictions on use, etc. ethe OSLO-85 program on a 5½"
RESPONSIBILITIES STATEMENT	

HP USE ONLY

I.D. Code: 10041

Application Code: 19.31001

Expiration Date:

Product Name:

Mainframe(s):

Radius of Curvature Well Survey Program

HP-83/85

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

> This program was designed and developed to allow the user to calculate and plot direction surveys on well-bores with hole inclination. The "Radius of Curvature Well Survey Program" is structured to be interactive with the user. Survey data can be entered from the keyboard or a mass storage (tape cartridge or flexible disc) data file. The user may review and edit the input data before calculations are started. When the survey calculations are completed, output can be printed on the HP-85's internal printer or a Centronics 730 impact printer. Additionally, survey data may be stored on a mass storage device and/or plotted on the HP-83/85's CRT or the Hewlett-Packard 7225 Vector Plotter.

(Contact Remex for Special Package Prices)

Retail Price:

\$900.00

Company Name:

Remex Corporation

6095 - 28th St. S.E.

Address:

Suite A

Grand Rapids, MI 49506

Telephone:

(616) 942-9800

Contacts:

Carl VanderZee

SYSTEM REQUIREMENTS	
Computer Model: HP-83/85	Peripherals: Printer Interface,
Memory: 16K Memory Module	HP-IB Interface,
Operating System: Printer/Plotter ROM, (Mass Storage ROM)	7225B Plotter, 5½" single or dual Master
Other Software:	Flexible Disc Drive, Centronics 730 Print.
CUSTOMER SUPPORT	
Geographic Area Supported:	
X U.S. (all regions) □ Mexico   □ East □ Latin America (all)   □ South □	
☐ Midwest         ☐	 ☐ Australia/N.Z.
Support Services Available:	
Image: Image	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Information and Pricing:  At a cost of \$45.00 per hour plus expenses.	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Onsite or at Remex Corporation's Headq Call or write for current prices.	
Documentation Available: One (1) English Manual with pictorial examples -	Price: 20 pgs.
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: DATE OF FIRS	T INSTALLATION:
ADDITIONAL INFORMATION	
Program Modification available on a time Version B to run with the HP82905A Print at the same cost as the standard package	er is available
RESPONSIBILITIES STATEMENT	



# 2 Factory & Plant Automation (CAM)

- 21 Manufacturing Engineering
- 22 Automation Management
- 23 Facility Management
- 24 Material Handling
- 25 Machine Control
- 26 Process Control & Monitoring
- 27 Production Line Control
- 29 Other

### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 22.11004

**Expiration Date:** 

PRODUCT NAME

MESSAGE DISPATCHER

MAINFRAME(S)

HP 1000

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.) The Message Dispatcher is a flexible software system designed to support collection. distribution, storage, retrieval and analysis of event messages occurring in a realtime production environment.

The system has the following functions and features:

- 1. A user-oriented facility for defined messages relating to the operation of the line, such as events, alarms, measurements, shift changes, etc. Each message can be coded to specify actions to perform when the event occurs.
- 2. A standard tool for sending messages from any user program.
- 3. A real-time subsystem which receives all messages, dispatches them to selected terminals, and/or logs them in the Line Productivity Monitor data base.
- 4. A reporting facility for selectively retrieving and analyzing information from the data base.

The Message Dispatcher is a valuable tool in monitoring automated production processes to help achieve the objective of improving line productivity. This can be accomplished in several ways:

- 1. By providing MAINTENANCE personnel with diagnostic information to speed repairs (direct dispatching to terminals in the maintenance crib), and with statistical downtime analyses to identify recurring problem areas.
- 2. By providing QUALITY CONTROL personnel with production and measurement information to monitor production quality.
- 3. By providing OPERATIONS personnel with alarms and other information useful in running the production line efficiently.

The Message Dispatcher is the first module available in ITP's Line Productivity Monitor (LPM) which will be available in July, 1982. The Line Productivity Monitor is a flexible DECISION-SUPPORT system composed of several modules designed to increase automated production line productivity. In addition to the Message Dispatcher, the LPM will consist of:

A State Monitor module, which, by modelling in real-time each line component, provides the user with enhanced diagnostic and performance information.

(Continued on reverse side)

RETAIL PRICE:

\$6,000 - \$9,000

COMPANY NAME: ITP BOSTON, INC.

CONTACTS: Michael J. Lipton

J. Scott Rhodes

ADDRESS:

30 Spinelli Pl.

Campbridge, MA 02138

TELEPHONE:

(617) 491-6292

SYSTEM REQUIR	REMENTS	
Computer Model:	HP 1000 Model 40,60,5,A600 Peripherals:	5M Hard Disc
Memory:	512 KB	Printer Terminal
Operating System:	RTE-4,6,XL,A.1	
Other Software:	,	
CUSTOMER SUP	PPORT	
Geographic Area Su		
□ Worldwide □ U.S. (all regions) □ East □ South □ Midwest	🛭 Canada 🔻 🛣 Europe (all)	
□ West	□ South Africa	☐ Australia/N.Z.
Support Services Av	vailable.	
phone-in suppor     on-site consulting		☑ remote dial-in ☑ program modification
Additional Support	Information and Pricing:	
CUSTOMER TRA	INING/DOCUMENTATION	
Training Available:	Yes	Price: \$600/day
Documentation Avai	lable: User's Manual Technical Manual	Price: included
Documentation Avai	ilable in other languages: Yes	
NUMBER OF INS	TALLATIONS: 1 DATE OF FIRST INS	STALLATION: 12/15/81

#### ADDITIONAL INFORMATION (Continued from reverse side)

- 2. A Sensitivity Monitor which analyzes interactions between machines and/or interoperational buffers in order to provide the user with quantitative measures of which line components could be improved to give the largest increase in overall line throughput.
- 3. Real-time line Status Displays to provide production management with tools for better day-to-day operational decisions.
- 4. A Line Simulator, to project production at the end of the day, week, etc., and to model future lines in their planning stages.

In automated production systems, small percentage improvements in line productivity add up to enormous dollar savings which can more than pay for the LPM in a short time.

#### RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.

#### **HP USE ONLY**

I.D. Code:

Application Code: 22.11005

Expiration Date:

Product Name:

Mainframe(s):

**VENDOR RATING - 1000** 

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The HDS Vendor Rating-1000 package provides a computerized rating system based on lot information obtained during the receiving inspection operation. Inspection data is collected by vendor/part number combinations and stored in HDS' Incoming Quality Managment-1000 data base. The package accesses the data base for up-to-date vendor analysis.

A standard formula which uses lot size and lot disposition calculates the ratings. If the standard formula does not meet your needs, the package easily accommodates other formulas. The ratings are cumulative over time and can be generated for many purposes. Vendors are rated on all parts, on single parts, or on single purchase orders over yearly or monthly time frames.

Rating reports summarize results in meaningful ways. Reports can be obtained on the performance of all vendors on all parts, and all vendors on a single part. In addition, the performance of a single vendor across all parts, a single part, or a single purchase order can be produced.

Directory reports incorporate useful search capabilities which enable comparison of vendors or parts. A directory report of all vendors above or below a user-specified rating value can be obtained. Another directory report which shows the ratinga of all parts with their associated vendors, above or below a user-specified rating value, also aids decision making.

Vendor Rating-1000 reduces subjectivity in the selection of vendors and the determination of their performance. Finding the consistent vendor, identifying good from bad, and detecting trends in performance, annually or monthly, is achieved with common sense objectivity.

#### FEATURES:

- Uses rating formula based on lot size and disposition.
- Interfaces with QADM's Incoming Quality Management package.
- Searches Directory by Vendor or Vendor/Part # combination. Reports subsets of vendors above or below
- Summarizes by yearly or monthly ratings.
- · Rates all vendors across all parts or single part.
- Multi-user capability.
- . Soft-key control of all functions.
- CRT display or hard copy of all reports.
- Integratable with other QADM packages.
- Utlizes the Hewlett-Packard 1000 Series computers.

### a rating value.Rates a single vendor across all parts,

desired rating formula.

- single part, or single P.O.
   On-line HELP facility.
- 8 1/2 x 11 report format.
- Easy to install.

#### BENEFITS:

- Increases knowledge of vendor performance through comparison analysis.
- Makes purchasing decisions more objective.
- · Aids in revealing performance trends.
- Reduces paperwork, clerical time, and office space.
- Reduces transcription errors.
- · No programming experience required.

 Fosters relations with vendors by providing performance guidelines.

• Designed to easily accommodate customer

- Provides basis for periodic reviews.
- Helps identify consistent performers.
- Provides immediate availability of on-line data.

Retail Price:

\$10,000.00

Company Name: Hansford Data Systems, Inc.

Contacts: Carl Reynolds
Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

SYSTEM REQUIRE	MENTS		
Computer Model:	1000 L/E/F		Peripherals: 264X; 2608 or 2631;
Memory:	5 mb		M, H, or CS80 disc.
Operating System:	RTE		
Other Software:	IMAGE/1000 (92069A) HDS Incoming Quality		1000
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
<ul> <li>□ Worldwide</li> <li>□ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Mexico ☐ Latin America (all) ☐		
Support Services Av			
phone-in support on-site consulting	⊠ mail-in sup ⊠ on-site sys	pport stems engineers	□ remote dial-in □ program modification
Additional Support I	nformation and Pricing:		
Custom softwa	are services available	for this produ	ct.
CUSTOMER TRAIN	NING/DOCUMENTATION		
Training Available:	yes		Price: call for info
Documentation Avai	lable: yes		Price: call for info
Documentation Avai	ilable in other languages:	custom basis	
NUMBER OF INST	TALLATIONS:	DATE OF FIRS	ST INSTALLATION:
ADDITIONAL INFO	ORMATION		

#### **HP USE ONLY**

I.D. Code:

Application Code: 22.11006

Expiration Date:

Product Name:

Mainframe(s):

INCOMING QUALITY MANAGEMENT - 1000

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Incoming Quality Management - 1000 package, IQM, provides a comprehensive receiving inspection material status and control system. IQM is designed for ease of use by receiving, receiving inspection, purchasing, and production control personnel.

Incoming material is recorded by part number, vendor, and purchase order number. A unique lot number is automatically assigned to this combination providing a fast and easy method of monitoring the status of material. As a special feature, cast or molded parts can be recorded by cavity number.

Specific reports can be generated on the status of parts received and where they stand in the inspection cycle. Single or combination directories can also be obtained by part number, vendor, and purchase order number. At any time, additional lot information may be recorded with easy-to-use history line capability. With IQM-1000, lot quality can be monitored by tracking accepted and rejected material. This forms the basis for integration with our Vendor Rating package.

As an effective management tool, IQM - 1000 can aid in balancing inspection work loads, establishing sampling plans, and reducing inventories. The direct availability of on-line data increases overall effectiveness. Users are now able to obtain up-to-date material status and reports required by their operation.

- Assigns unique lot number for each shipment.
- Calculates elapsed time for each change of lot status. Automatically updates time and date for each entry.
- Searches by part number, vendor, purchase order Records up to nine pallet numbers for each lot. number, lot number, or cavity.
- Soft-key control of all functions.
- CRT display or hard copy of all reports.
- Integratable with other QADM packages.

- Maintains complete lot history.

- Multi-user capability.
- On-line HELP facility.
- 8 1/2 x 11 report format.

#### BENEF ITS

- Assists in reducing inventory levels.
- Provides material traceability.
- Forms a historical basis for determining vendor performance.
- Provides immediate availability of on-line data.
- Reduces transcription errors.

- Aids in establishing optimal sampling plans.
- · Helps balance inspection workloads.
- . May be used as a receiving system.
- Reduces paperwork, clerical time, and office
- No programming experience necessary.

Retail Price:

\$10,000.00

Company Name:

Hansford Data Systems, Inc.

Contacts:

Carl Reynolds

Address:

3055 Brighton-Henrietta Town Line Road

Account Manager

Rochester, New York 14623

Telephone:

SYSTEM REQUIREMENTS	
Computer Model: 1000 L/E/F	Peripherals: 264X; 2608 or 2631;
Memory: .5 MB	M, H, or CS80 disc.
Operating System: RTE	
Other Software: IMAGE/1000 (92069A)	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	
Support Services Available:	
□ phone-in support         □ mail-in support         □ on-site consulting         □ on-site systems engineers         □ on-site syste	<ul><li>□ remote dial-in</li><li>☑ program modification</li></ul>
Additional Support Information and Pricing:	
Custom software services available for thi	s product.
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Yes	Price: call for info
Documentation Available: Yes	Price: call for info
Documentation Available in other languages: custom basis	
NUMBER OF INSTALLATIONS: DATE OF FIR	ST INSTALLATION:
ADDITIONAL INFORMATION	
DESCRIPTION OF ATTMENT	

**HP USE ONLY** 

I.D. Code:

Application Code: 22, 11007

**Expiration Date:** 

Product Name:

PROCESS ANALYSIS - 1000

Mainframe(s):

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Process Analysis-1000 provides analytical tools for statistical quality control applications. The package consists of Dimension Analysis and True Position Analysis. Dimension Analysis branches into Control Chart Analysis and Descriptive Statistics. True Position Analysis is specially designed for analyzing features specified as true position - Regardless of Feature Size (RFS) or Maximum Material Condition (MMC). For each analysis, variable data are accessed from QADM's Historical Part Management data base or entered manually. Supplemental part information is retrieved and furnished on each report and graph.

Control Chart Analysis provides X-bar and Range or Sigma control charts. Control chart limits are generated automatically from current data or from user-supplied standards. A uniquely designed normal inference plot linked to the control chart analysis reveals the natural tolerance of the process.

Descriptive Statistics provides general data analysis tools. Pertinent descriptive statistics are calculated. Frequency tables and histograms summarize the data automatically or interactively. A normal probability plot display percentiles, verfies distribution assumptions, and estimates parameters. outliers may be eliminated from the data set.

An MMC or RFS analysis for diametric features is accomplished in True Position Analysis. A polar deviation plot shows observed centers for circular feature in relation to its specified center. The percent of tolerance used by the process is also analyzed graphically. Pertinent data arrays are interfaced with Dimension Analysis.

- Graphical and numerical analysis.
- Interfaces with QADM's Historical Part Management data base.
- Control chart analytical reports.
- Frequency tables.
- · Probability plots.
- Normality Test.
- Outlier elimination capabilites.
- Percent tolerance used plots.
- True Position Analysis interface to Dimension Analysis.
- · Multi-user capability.
- Soft-key control of all functions.
- CRT display or hard copy of all reports.
- Integratable with other QADM packages.
- Utilizes the Hewlett-Packard 1000 Series Computers.

- Rapid data retrieval.
- X-bar and Range or Sigma control charts.
- Basic statistics calculations.
- · Histograms.
- Interval estimations.
- Normal inference plots.
- Polar deviation plots.
- True position analytical calculations.
- Automatic axis scaling for graphs.
- CRT raster display, raster print, or color plot of all graphs.
- On-line HELP.
- 8 1/2 x 11 report format.
- Easy to install.

Retail Price:

\$10,000.00

Company Name: Hansford Data Systems, Inc.

Contacts: Carl Reynolds

Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

SYSTEM REQUIREMENTS	
Computer Model: 1000 L/E/F	Peripherals: 2648; 2608 or 2631; M, H, or CS80 disc;
Memory: .5 mb	Optional: 2671 and 9872 C/T
Operating System: RTE	
Other Software: IMAGE/1000 (92069A)	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide ☑ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □	
Support Services Available:	
<ul> <li>         □ phone-in support         □ mail-in support         □ on-site consulting         □ on-site systems engineers     </li> </ul>	□ remote dial-in □ program modification
Additional Support Information and Pricing:	
Custom software services available for this produc	ct.
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Yes	Price: call for info
Documentation Available: Yes	Price: call for info
Documentation Available in other languages: custom basis	
NUMBER OF INSTALLATIONS: DATE OF FIRS	ST INSTALLATION:
ADDITIONAL INFORMATION	
tools.  Organizes data to indicate sources of trouble and possible solutions.  Facilitates capital equipment selection.  Aids in reducing inspection, repair, rework, and scrap.  Provides quick, dependable real-time analysis.  Enhances design of engineering specifications.  Detects trends; when and where to investigate.  Forms the heart of statistical quality control  Helps ach Saves time that cap methods, and scrap.  Aids in the character of statistical quality control	reducing process variability. comparative studies; selection of

**HP USE ONLY** 

I.D. Code:

Application Ccde: 22.11008

Expiration Date:

Product Name:

Mainframe(s):

ACCEPTANCE SAMPLING - 1000

1000 SERIES

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Acceptance Sampling-1000 provides the capability to design and analyze lot-by-lot, single sampling plans for attributes. The plans may be based on Hypergeometric, Binomial, or Poisson probabilities and are applicable to many inspection operations. The package makes it possible to investigate plans for isolated lots arriving at the receiving dock, for lots from a continuous in-house process, and for other inspection circumstances. Lot quality is expressed as defectives, percent defective, or defects per hundred units, enabling analysis of MIL-STD-105D plans.

The package's design module determines minimum sample size plans which satisfy user-specified Producer and Consumer Risk requirements. The Analysis module produces, for a single sample plan, its Operating Characteristic (OC), Average Total Inspection (ATI), and Average Outgoing Quality (AOQ) curves. The OC curve vividly displays protection characteristics offered by any plan. The quality of product passing to the manufacturing area and inspection requirements are displayed by the AOQ and ATI curves respectively. Comparison of the OC, AOQ, and ATI curves of alternate plans is achieved through overlaying graphical capabilities. Up to three curves of a given type may be viewed at the same time on one graph.

#### FEATURES:

- Designs single sampling plans for attributes.
- Provides OC, AOQ, and ATI curves.
- . Determines the AOQL of a plan.
- Automatically stores plans from Design module for Analysis module.
- Automatic axis scaling for all graphs.
- CRT raster display, raster print, or color plot of all graphs.
- On-line HELP.
- $\bullet$  8 1/2 x 11 report format.

#### BENEFITS

- Provides comprehensive graphical analysis.
- Designs optimal plans for unique circumwtances.
- Investigates plans for a variety of possible conditions.
- · Helps foster producer consumer relations.
- Analyzes any single plan from MIL-STD-105D.
- Provides means to educate employees in acceptance sampling techniques.

- Bases plans on Hypergeometric, Binomial, or Poisson probabilities.
- Allows comparison of up to three curves on same plot.
- Analyzes user-selected points on OC, AOQ, and ATI curves.
- Multi-user capability.
- . Soft-key control of all functions.
- CRT display or hard copy of all reports.
- Integratable with other QADM packages.
- Increases knowledge of protection characteristics of plans.
- Aids in selection of plans for in-house or receiving inspection.
- Aids in allocating inspection workloads and determining costs.
- . Replaces tedious hand calculations.
- · No programming experience required.

Retail Price:

\$10,000.00

Company Name:

Hansford Data Systems, Inc.

Contacts: Car

Carl Reynolds Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

SYSTEM REQUIR	EMENTS				
Computer Model:	1000 L/E/F		Peripherals:		2608 or 2631;
Memory:	.5 mb		Optional:	м, н, 2671 а	or CS80 disc; and 9872 C/T
Operating System:	RTE				
Other Software:	none				
CUSTOMER SUPP	PORT				
Geographic Area Si	upported:				
☐ Worldwide  ☑ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	☐ Mexico ☐ Latin America (all) ☐	Europe (ail)			ia/N.Z.
Support Services A					
phone-in support on-site consulting	t ⊠ mail-in suppo g ⊠ on-site syste		_	remote progran	dial-in n modification
Additional Support	Information and Pricing:				
Custom so	ftware services available	for this pro	duct.		
CUSTOMER TRAI	NING/DOCUMENTATION				
Training Available:	Yes		Pri	ice:	call for info
Documentation Ava	ilable: Yes		Pri	ice:	call for info
Documentation Ava	uilable in other languages:	custom basis			
NUMBER OF INS	TALLATIONS:	DATE OF FIRS	T INSTALLAT	ION:	
ADDITIONAL INF	ORMATION				

HP USE ONLY

I.D. Code:

Application Code: 22, 11009

Expiration Date:

Product Name:

Mainframe(s):

PRODUCTION QUALITY MANAGEMENT - 1000

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The HDS Production Quality Management - 1000 package provides on-line storage and complete data management capabilities for variables data. Creating and maintaining a data base is accomplished with no programming experience required. This package can interface with Hansford Data Systems' analytical package, Process Analysis-1000, which provides powerful statistical quality control tools.

Part definitions are entered one time and stored in information data sets. These data sets include part number, part description, and number of dimensions. Each dimension is defined with a part dimension data set which includes description and specification data.

As observations are made, samples are recorded in sample data sets for inquiry and analysis. Each sample comprises descriptive data and the observed values.

This package is designed to give you comprehensive data management capabilities including data entry, retrieval, and inquiry.

#### **FEATURES:**

- Rapid entry and retrieval of historical part information.
- Stores up to 8,000 on-line samples per part.
- Interfaces with QADM's Process Analysis package.
- Many dimensions associated with each part.
- On-line updating.
- · Wide variety of reporting capabilities.
- Multi-user capability.
- · Soft-key control of all functions.
- On-line HELP facility.
- CRT display or hard copy of all reports.
- 8 1/2 x 11 report formt.
- Easy to install.
- Utilizes the Hewlett-Packard 1000 Series computers.

#### BENEFITS:

- Maintains part histories increasing knowledge of the process.
- Standardizes part definition format.
- · Reduces paperwork, clerical time, and office space.
- Immediate availability of on-line data.
- No programming experience required.

Retail Price:

\$10,000.00

Company Name:

Hansford Data Systems, Inc. Contacts: Carl Reynolds

Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

SYSTEM REQUIRE	MENTS			
Computer Model:	1000 L/E/F		Peripherals:	264X; 2608 or 2631;
Memory:	.5 mb			M, H, or CS80 disc.
Operating System:	RTE			
Other Software:	IMAGE/1000 (92069A	1)		
CUSTOMER SUPPO	ORT			
Geographic Area Sup	pported:			
<ul><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Latin America (all) ☐			Far East (all)
Support Services Ava	ailable:	anort.		romoto dial in
☑ on-site consulting	⊠ mail-in sup ⊠ on-site sys	stems engineers	_	remote dial-in program modification
Additional Support In	nformation and Pricing:			
Custom s	oftware services avail	able for this p	product.	
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:	yes		Pri	ice: call for info
Documentation Avail	able: yes		Pr	ce: call for info
Documentation Avail	able in other languages:	custom basis		
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRS	T INSTALLAT	TION:
ADDITIONAL INFO	RMATION			
			·	

**HP USE ONLY** 

I.D. Code:

Application Code: 22.11010

Expiration Date:

Product Name:

ZEISS CMM QUALITY MANAGEMENT - 1000

Mainframe(s):

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The HDS Zeiss Coordinate Measuring Machine (CMM) Quality Management-1000 package provides on-line data collection, data storage, and data management capabilities. Automatic data collection is accomplished with manual control functions. The result is a process which automatically creates and maintains a historical parts management data base. This package can interface with Hansford Data Systems' analytical package, Process Analysis-1000, which provides powerful statistical quality control tools.

The part definition and dimensional information required to create the part data base is automatically extracted from measurement data transmitted by the Zeiss CMM. These definitions are stored in information data

As parts are measured by the Zeiss CMM, the observations are collected into intermediate files. Manual control functions provide a user friendly environment for merging the data in the intermediate files into the historical parts management data base. These intermediate file management functions allow a user to choose one of several measurements for a single sample. Each sample in the data base comprises descriptive data and the observed values.

This package is designed to give you comprehensive data management capabilities including data collection, storage, retrieval, and inquiry.

#### FEATURES:

- Automatically collects data from Zeiss coordinate measuring machines.
- · User friendly control functions to merge samples with the historical parts management data base.
- Provides rapid entry and retrieval of historical part information.
- Stores up to 8,000 on-line samples per part.
- Interfaces with QADM's Process Analysis package.
- . Many dimensions associated with each part.
- On-line updating.
- . Wide variety of reporting capabilities.
- Multi-user capability.
- . Soft-key control of all functions.
- On-line HELP facility.
- CRT display or hard copy of all reports.
- 8 1/2 x 11 report format.
- Easy to install.
- Utilizes the Hewlett-Packard 1000 Series computers.

#### BENEFITS:

- Eliminates manual data entry.
- Enables real-time analysis of Zeiss coordinate measuring machine data.
- Eliminates transcription errors.
- Maintains part histories increasing knowledge of the process.
- Standardizes part definition format.
- Reduces paperwork, clerical time, and office space.
- Immediate availability of on-line data.
- · No programming experience required.

#### Retail Price:

\$15,000

Company Name:

Hansford Data Systems, Inc.

Contacts: Carl Reynolds

Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

Computer Model:       1000 L/E/F       Peripherals:       264X; 2608 or 263 M, H, or CS80 dis         Memory:       .5 MB         Operating System:       RTE         Other Software:       IMAGE/1000 (92069A)	! <b>:</b>
Memory: .5 MB  Operating System: RTE	
	·•
Other Software: IMAGE/1000 (92069A)	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide       □ Canada       □ Europe (all)       □ Far East (all)         □ U.S. (all regions)       □ Mexico       □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Available:	
⅓ phone-in support       ☒ mail-in support       ☐ remote dial-in         ⅙ on-site consulting       ☒ on-site systems engineers       ☒ program modification	
Additional Support Information and Pricing:	
Custom software services available for this product.	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Yes Price: call for in	o
Documentation Available: Yes Price: call for in	o
Documentation Available in other languages: custom basis	
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:	
Custom Dasis	
NUMBER OF INSTALLATIONS:  DATE OF FIRST INSTALLATION:	
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HP USE ONLY

I.D. Code:

Application Code: 22.11011

**Expiration Date:** 

Product Name:

CALIBRATION - 1000

Mainframe(s):

1000 SERIES

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Calibration-1000 provides a comprehensive calibration scheduling and control system for gages and test instruments. It permits immediate update or access to critical calibration records. The package is designed for ease of use by the quality assurance department or calibration personnel. Now, management can be sure that gages and instruments remain in calibration thereby reducing the potential for scrap and rework.

The direct availability of calibration records to the responsible user increases overall effectiveness. Users are able to obtain up-to-date reports required by their operation. By maintaining a computerized record of location and description, capital investment in redundant gages and test instruments may be reduced.

#### FEATURES:

- Provides scheduling of required calibration dates.
- . Maintains complete calibration history.
- Monitors delinquent equipment.
- . Searches by age, description, or location.
- . Soft-key control of all functions.
- On-line HELP facility.
- . CRT display or hard copy of all reports.
- 8 1/2 x 11 report format.

#### BENEFITS:

- Provides traceability of calibration history required by major companies.
- Aids in compliance with requirements of MIL-STD-45662.
- . Balances calibration work loads.
- Reduces capital investment in redundant gages and test instruments.
- . Lowers overall calibration costs for inactive equipment.
- Decreases paperwork, clerical time, and office space.
- Immediate availability of data.
- Reduces transcription errors.
- Eliminates scrap and rework due to delinquent measurement equipment.
- No programming experience required.
- · Positive marketing tool to demonstrate quality awareness.

Retail Price:

\$10,000.00

Company Name: Hansford Data Systems, Inc.

Contacts: Carl Reynolds

Account Manager

Address:

3055 Brighton-Henrietta Town Line Road

Rochester, New York 14623

Telephone:

SYSTEM REQUIRE	EMENTS			
Computer Model:	1000 L/E/F		Peripherals:	264X; 2608 or 2631; M, H, or CS80 disc.
Memory:	.5 MB			н, п, ur coou uisc.
Operating System:	RTE			
Other Software:	IMAGE/1000 (92069A)			
CUSTOMER SUPP	ORT			
Geographic Area Su	pported:			
☐ Worldwide  ☑ U.S. (all regions)  ☐ East ☐ South ☐ Midwest ☐ West	☑ Canada ☐ Mexico ☐ Latin America (all) ☐ ☐	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Far East (all)
Support Services Av				
x phone-in support x on-site consulting	໘ mail-in supp g ☑ on-site syst	oort ems engineers	□ <b>3</b>	remote dial-in program modification
Additional Support	Information and Pricing:			
Custom soft	ware services available	for this produ	ict.	
CUSTOMER TRAIL	NING/DOCUMENTATION			
Training Available:	Yes		Pri	ice: call for info
Documentation Ava	ilable: Yes		Pri	<sup>ice:</sup> call for info
Documentation Ava	ilable in other languages:	Custom basis		
NUMBER OF INST	TALLATIONS:	DATE OF FIRS	T INSTALLAT	ION:
ADDITIONAL INF	ORMATION			



#### HP USE ONLY

I.D. Code:

Application Code: 22.11012

Expiration Date:

Product Name:

Mainframe(s):

INSTRUCTION MANAGEMENT - 1000

1000 SERIES

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Instruction Management-1000 provides on-line storage of instructions for receiving, sampling, inspection, assembly, calibration, and other manufacturing functions. The latest instructions are readily available to each employee who performs the corresponding operation in the manufacturing process.

Instructions are referenced by entering a part number or part number/vendor combination. Entering a part number accesses the instructions for internal or generic parts. Part number/vendor combinations access instructions for receiving and receiving inspection operations. Operations numbers may be used to organize instruction steps. Steps are either tests or procedures. Tests are common steps which are stored in a library and referenced when necessary. Procedures are unique steps for a particular instruction set.

Reports, Updates, and Audit Trails facilitate the handling of instructions. Report output includes instructions, tests, and cross reference directories. Instruction Management-1000 Update provides easy to use maintenance functions. Clone capability, for example, gives you an efficient method of creating new instructions similar to existing instructions without entering all data from scratch. Audit Trail capabilities guarantee data integrity and traceability with a complete audit of updates including reports, back-up and recovery.

#### FEATURES:

- Instructions referenced by part number, or part number/ vendor combination.
- Library of tests stored by category.
- Update function with clone capability.
- Automatic update of date last changed.
- On-line updating.
- · Password security.
- Soft-key control of all functions.
- CRT display or hard copy of all reports.

#### BENEFITS

- Aids in standardization of instruction formats.
- Reports all part number and vendor combinations.
- Reduces confusion over current revision.
- Provides latest instructions.
- Immediate availability of on-line data.
- No programming experience required.

- Organizes instructions by operations and steps.
- Finds all instructions associated with a specified gage or instruction.
- · Complete audit trail capability.
- Reports instructions for a given operation number.
- Multi-user capability.
- On-line HELP facility.
- Provides tracesbility of gages and instruments.
- Designed for many applications, such as military sampling plans.
- · Reduces paperwork, clerical time, and office space.

Retail Price:

\$ 10,000.00

Company Name:

Hansford Data Systems, Inc.

Contacts: Carl Reynolds

Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

SYSTEM REQUIRE	MENTS			
Computer Model:		*		264X; 2608 or 2631:
Memory:	.5 MB		1	M, H, or CS80 disc.
Operating System:	RTE	erang er er fle v		
Other Software:	IMAGE/1000 (920	D69A)		
CUSTOMER SUPPO	ORT			
Geographic Area Sup	ported:			
☑ U.S. (all regions)	Latin America (a			ar East (all)
☑ phone-in support	⊠ m ⊠ o	ail-in support n-site systems engineers		emote dial-in rogram modification
Additional Support In		available for this pr	roduct.	
CUSTOMER TRAIN	ING/DOCUMENTAT	<b>TION</b>		
Training Available:	yes		Price	e: call for info
Documentation Availa	able: yes		Price	<sup>e:</sup> call for info
Documentation Availa	able in other languaç	ges: custom basis		
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRS	ST INSTALLATIO	ON:
ADDITIONAL INFO	RMATION			-

HP USE ONLY

I.D. Code:

Application Code: 23.11001 1/ 1/83 Expiration Date:

Product Name:

Mainframe(s):

CEMS/1000 (Centralized Energy Management System)

HP 1000 M/E/F

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CEMS/1000 is a control system that gives building owners and managers the ability to automate the operation of heating, air conditioning, lighting and other building devices at maximum energy efficiency consistent with building operation requirements. This system will typically achieve a 15% to 40% reduction in energy costs over conventional control methods.

CEMS/1000 allows building managers to set the times and levels of operation of each device connected to the system. For each device, up to 96 individual operating levels can be set for user defined combinations of time of day and weather conditions. In addition, the system will automatically reduce short term energy usage to hold costly electrical peak demand to a user specified limit. These capabilities make CEMS/1000 suitable for buildings with operating requirements too complex for other building automation systems.

#### Features:

- System has capacity for up to 40 remote terminals with up to 48 controller devices per terminal.
- Simple interactive user interface to system through prompted menu selection structure of status and tabular data entry displays.
- System uses decision table control specifications which are easy to understand and modify for nonengineering personnel.
- All control parameter may be changed either permanently or temporarily allowing exceptional conditions to be handled without compromising data integrity.
- Complete logging and reporting of up to 4 meterable resources such as electricity, gas and steam.
- Complete logging and reporting of device control activity.
- Reliable communications to remote terminals through the HP multipoint subsystem.
- Remote terminals have manual override and short term stand-alone capabilities.

Retail Price:

\$25,000

Company Name: International Energy Conservation Systems,

Inc., (IECS)

Address: Suite 100, Prado West,

5600 Roswell Rd., Atlanta, Georgia 30342

Telephone: (404) 252-2233 Contacts: Richard Jackson

Thomas H. Derby III

SYSTEM REQUIRE	MENTS			
Computer Model:	HP 1000 - M/E/F	Periphera	ls:	
	bytes minimum bytes recommended	-136 Column Prin	el Disc recommended ater	
RTE-IV Other Software:	<sup>7</sup> B		Jnit recommended 264X or 262X Terminals	
	Multipoint Terminal			
CUSTOMER SUPPO	ce Subsystem			
□ U.S. (all regions) ☑ East ☑ South □ Midwest	☐ Canada ☐ Mexico ☐ Latin America (all) ☐	·		
West     ■		☐ South Africa	☐ Australia/N.Z.	
Support Services Ava				
	⊠ mail-in sup ⊠ on-site sys	pport stems engineers	<ul> <li>□ remote dial-in</li> <li>☑ program modification</li> </ul>	
Additional Support In	nformation and Pricing:			
Engineering and	d installation (building cont	rols) available System genera	tion support available.	
OUCTOMED TOAIN	UNCADOUMENTATION			
CUSTOMER TRAIN	IING/DOCUMENTATION			
Training Available:	Two day training in Atlanta or Van Nuys, CA		Price: \$500/course	
Additional sup Documentation Avail	port available on a consultir able:	ng fee basis	Price:	
System specific			2 sets - no charge	
Dutch	able ili other languages.			
NUMBER OF INST	ALLATIONS: 6	DATE OF FIRST INSTAL	LATION: 1979	
ADDITIONAL INFORMATION				
RESPONSIBILITIES S	STATEMENT			

endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 23,11002

Expiration Date:

PRODUCT NAME

**EKOPOW** 

Power Plant Supervisory System

MAINFRAME(S)

HP-1000

A, E & F Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.) The application objectives of this real-time utility power plant performance supervision system are to:

- improve plant efficiency by establishing target values for key operating conditions throughout the plant and by flagging deviations from optimum for continued operator
- improve plant availability through preventing an unexpected shut-down and to improve maintenance scheduling by early detection of degrading performance characteristics of the major plant equipment.

An extensive reporting system is incorporated into the program package.

The package consists of periodical programs that use ten minute averages of measurement data to provide:

- a reasonability checking of measurements against limits that are a function of main variables. If the measured value is found to be invalid, it is replaced with a standard value or curve data.
- adaption of the calculations for changing process conditions with help of measured binary signals.
- consistency of measured flow data with balancing calculations. In this context, ordinary balance calculations are used extensively to get an average and at the same time more accurate value for key flows. In order to make the material balances to hold the error is distributed to the measurements that have the highest likelihood to be wrong.
- establish longterm energy balances through accumulation of next shorter period energy flow pictures
- target values for key operating variables based on a model constructed for each power plant individually
- determination of the deviation from existing conditions in terms of excess fuels
- the energy transfer characteristics of major plant equipment
- extensive repertoire of periodic reports and displays

All the displays and reports are custom designed in cooperation with the client. The parameters of each individual power plant model are also custom determined.

The system analysis and engineering is carried out by a team with extensive experience in power plant operation and design as well as computer programming. The package must be regarded as a fine tuning instrument intended to boost a high station efficiency even higher. The improvement in the power plant performance is expected to be at least two percent in efficiency and two days per annum in availability.

RETAIL PRICE: \$250,000

COMPANY NAME:

EKONO Inc., Atlanta Office

CONTACTS: Mr. Seppo Aarnio

Mr. Olli Hartikainen

ADDRESS: 380 Interstate North Parkway, Suite 475

Atlanta, GA 30339 U.S.A.

TELEPHONE:

(404) - 952-3615

SYSTEM REQUIREMENTS				
Computer Model:	HP-1000 Models 40,45,60,65 Peripherals:	HP2645 HP2631A		
Memory:	256 Kb			
Operating System:	RTEIVB, RTE-6/VM, RTE-A.1	Disc 20 Mb		
Other Software:	EKOCON/1000	DISC 20 MD		
CUSTOMER SUPP	ORT			
Geographic Area Sup	ported:			
☐ Worldwide  ☑ U.S. (all regions)		, ,		
□ East	🛚 Latın America (all)			
<ul><li>□ South</li><li>□ Midwest</li></ul>				
☐ West	□ <b>x</b> South Africa	XI Australia/N.Z.		
Support Services Ava	ilable:			
		☐ remote dial-in☐ program modification		
Additional Support In	formation and Pricing: Initial on-site installat	ion by Ekono is included in		
package. Other support services pricing depends on application.				
CUSTOMER TRAIN	IING/DOCUMENTATION			
Training Available: on-site training Price: incl. in package				
Documentation Available: Quick Reference Guide System User's Guide Price: incl. in package				
System Engineer's Guide Documentation Available in other languages: German, Swedish, Finnish				
NUMBER OF INSTALLATIONS: 3 DATE OF FIRST INSTALLATION: October 1977				
ADDITIONAL INFORMATION				
Ekono, Inc. is headquartered in Helsinki, Finland. All current referenced installations are located in Europe.				
RESPONSIBILITIES S	STATEMENT			
This software was de	veloped by an independent software supplier for operation on HP o	computer systems. The supplier is solely		
responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims				

any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.



Application Code:

23.12002

Mainframe(s) HP 1000 E & F-Series

Program Title

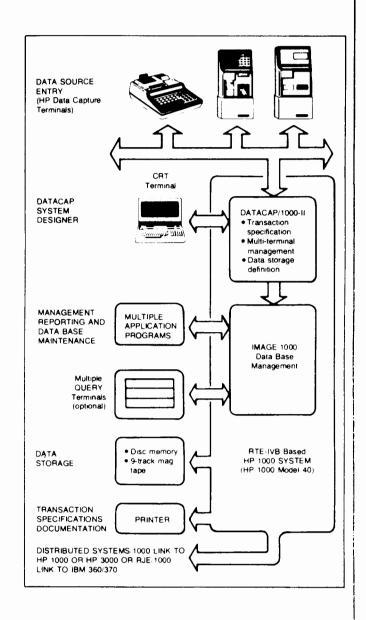
DATACAP/1000-II Data Capture Software

#### **Program Description**

HP 92080A DATACAP/1000-II is a real-time data capture support package used with HP 3075A and 3076A Data Capture Terminals and the HP 3077A Time Reporting Terminal in HP 1000 Computer Systems managed by HP's disc-based RTE-IVB real-time executive operating system. Typical configurations are shown on the next page. DATACAP/1000-II functions include creation of transaction specifications, set-up of a data capture subsystem, on-line management of multiple HP data capture terminals, data entry validation checking, and serial recording of transactions and/or entry of data into an IMAGE/1000 data base.

#### **Features**

- Simple configuration and management of multiple data capture transactions running on multiple HP data capture terminals
- Easy creation and modification of transaction specifications, using menu form guidance on 264x CRT display terminal
- Direct recording of data onto mag tape or disc files
- Data entry direct to data sets in data base with optional IMAGE/1000 Data Base Management System as well as retrieval and updating from data capture terminals
- Automatic transaction logging and IMAGE data base recovery from a transaction file of data base modifications
- Support of user subroutines for special display, input validation, data entry, or storage procedures
- Security code can be used to protect data integrity and prevent unauthorized system access through the data capture terminals
- Automatic detection and recovery from data transmission error or power failure at any of the data capture terminals
- HP-IB and RS-232 devices can be dropped off of the data capture terminals and accessed directly by the HP 1000 via user-written subroutines
- Time schedulable start-up and shut-down



### Purpose of DATACAP/1000-II

DATACAP/1000-II provides software support for entry of information (e.g., employee numbers, clock-in time, part numbers, work orders, test results, etc.) from multiple HP data capture and/or time reporting terminals directly into computer-readable storage media or an IMAGE/1000 data

A completely operational DATACAP/1000-il system tailored to the user's application can be established with a minimum of programming. DATACAP/1000-II is a complete package that manages multiple HP data capture terminals in accordance with user-defined transaction specifications. The transaction specifications are defined with the aid of a Transaction Generator Program that provides a guided, fillin-the-blanks transaction specification process designed for use by people who know what information must be captured by each transaction.

DATACAP/1000-II provides all of the basic tools needed for specifying and executing transactions at multiple HP data capture terminals. This includes checking and validation of entered data. For users with special display, input validation, data entry, and/or data recording requirements, DATACAP/ 1000-II provides linkage to user-written subroutines.

Use of a DATACAP/1000-II system bypasses the slow, costly, error-prone process of filling out handwritten forms, keypunching, and reading cards into the computer. The result is lower overall information processing costs and improved timeliness and accuracy.

RTE-IVB system memory requirements: The RTE-IVB system configured to support DATACAP/1000-II has the following memory requirements:

System code and tables: 56k bytes System available memory: 12k bytes System common for DATACAP use: 4k bytes.

DATACAP/1000-II memory partition requirements: The following partitions are required for DATACAP/1000-II:

DATACAP/1000-II application code: 122k bytes

Buffering for data capture terminals: 54k-404k bytes (see Table 1), using RTE-IVB mother partition

Optional memory partitions: The following partitions are required for optional DATACAP/1000-II capabilities:

Each IMAGE/1000 data base accessed: 56k bytes

For interfacing with user subroutines: 10k bytes, variable, for the user subroutines

Transaction generator program: 40k bytes, to avoid swapping if creating transactions concurrently with real-time data capture operations DS/1000 network communications: 6-25k bytes, depending upon remote access capabilities supported

Table 1. Memory buffering requirements by number of Data Capture Terminals

No. of	Buffer	No. of	Buffer	No. of	Buffer
Terminals	Size	Terminals	Size	Terminals	Size
1 - 5 6 - 10 11 - 15 16 - 20	54 kb 89 kb 124 kb 159 kb	21 - 25 26 - 30 31 - 35 36 - 40	194 kb 229 kb 264 kb 299 kb	41 - 45 46 - 50 51 - 56	334 kb 369 kb 404 kb

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40 (2176C/D), 45 (2177C/D)

> Price: \$5,250

HP Software Part Number:

92080A

Memory Options:

See "memory partition requirements" discussion above.

HP 3075, 3076, 3077 Data Capture Terminals. Mag tape unit strongly recommended. Peripherals:

Comments:

Contact your local HP Sales Office for additional information

**HP USE ONLY** 

I.D. Code:

Application Code: 24.21001

Expiration Date:

Product Name:

**PROTRASTORES** 

Mainframe(s):

9845 Bit/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### **PROTRASTORES**

Internal stores (or other small) inventory system

#### Features:

- 1. One tape only (or one disk) suffices for 500 item inventory and 500 customers or user departments!
- 2. Laced with safeguards against losing data and to retain integrity of data.
- 3. Ruggedly resistant to entry of erroneous data!
- 4. Complete tracking of transactions.
- 5. Reorder levels.
- 6. Complete reports of stock, totals, users accounts, transactions of any customer, of any employee, of any stock item.
- 7. Rapid internal check of balances and integrity of data.
- 8. Levels of authorized access by password.
- 9. Easy backup.
- 10. Easy postout.
- 11. Separation of transaction entry and authorization to accounts for off line data entry that may be checked before full entry.
- 12. Design philosophy and field experience is to utterly minimize the entry of erroneous data by catching it at its source!
- 13. Program is set by one single line of program to operate FIFO, LIFO, average or standard. Whichever is chosen, standard is always kept in addition and purchase and sale variances (differences between standard and mode chosen) are tracked.
- 14. Create your own sequences for stock item display, or use either of the two modes available automatically.
- 15. Includes instruction text file and message text file and text and message readers.

  \*\*(over)

Retail Price: \$500 plus tax, shipping, media extra, disks or tapes available. \$100 plus tax, shipping for additional copies, media extra

Company Name:

PROTRACOA

Contacts: David Kleitman

Address:

1134 Aster Ave., Suite K Sunnyvale, CA 94086

Telephone:

(415) 948-6611

SYSTEM REQUIR	EMENTS		
Computer Model:	9845 B/T/C	Peripherals:	
Memory:	187k required		
Operating System:			
Other Software:			
CUSTOMER SUP	PORT		
Geographic Area S	upported:		
☐ U.S. (all regions)	Latin America (all)		
Support Services A	vailable:		
☼ phone-in suppor ☒ on-site consultir	t	□ remote dial-in s	
Additional Support	Information and Pricing:		
Willing to est	ablish agency agreements outside	U.S.	
CUSTOMER TRA	NING/DOCUMENTATION		
Training Available:		Price: \$25/hr plus board, transportation Quitside S.F.Bay Area. Price:	
Documentation Available: Manual included		Up to 8 hrs no cost	
W		within S.F. Bay Area, \$25/hr thereafter	
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: 1981			
ADDITIONAL INF	FORMATION		
** 16.	6. Consists of three subprograms and six files all on one tape or disk.		
17. Limited to small inventory systems, per tape, but extremely powerful and reliable for this application.			
RESPONSIBILITIES	S STATEMENT		



### REFERENCED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 25.11001

Expiration Date: 9/1/82

PRODUCT NAME

UCC-APT Numerical Control Software

MAINFRAME(S) HP 1000 E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The UCC-APT system is a complete, stand-alone system consisting of the processor, tape utilities for reading, punching, and verification of machine control tapes, plus a job queuing facility to control job execution and output to various supported devices.

Post-processors, individual software programs which produce machine control tapes for specific NC machine tool/control combinations, are quoted and supplied separately.

Basic UCC-APT serves as the nucleus of the UCC part programming system and provides the capability to program cutter movements relative to 2-dimensional geometry defined in the XY plane with a constant or varying Z provided by a non-vertical plane part surface.

Intermediate UCC-APT contains all features of the Basic processor plus a series of user enhancements and programming aids to simplify the logical requirements of more elaborate part configurations. Additional capabilities include expanded geometric and cutter location transformation routines, multiple check surface calculations, present tool tip calculations, plus area and length calculations.

UCC's Advanced processor contains all features of the Basic and Intermediate systems plus the ability to generate three, four, or five axis fixed or variable tool control relative to an extended set of geometric surface types.

The UCC-APT Lathe Module can be added to any UCC-APT system and provides a highly simplified means for programming typical lathe configurations. The Lathe Module can reduce coding effort and length by two-thirds while increasing programming productivity by even greater amounts.

NC PLOT II provides comprehensive interactive display of the UCC-APT created Cutter Location file (CL file), allowing an in-depth preview of all machining operations before producing a punched tape. The NC PLOT II user can select from view, scale factor, directional arrows, tool shapes, translation and rotation options, directing the output to any supported graphics display device.

UCC postprocessors are designed to accept the UCC-APT created Cutter Location file (CL file) as input and to produce a machine control tape for a specific machine tool/control unit. In addition, all UCC postprocessors provide a verification listing which contains any diagnostics, absolute slide positions, accumulated tape length and machine time summaries, plus various information pertinent to the machine tool being operated.

RETAIL PRICE: \$15,000 to \$40,000 (See Additional Information section for more pricing data.)

COMPANY NAME: University Computing Company

CONTACTS: Earl White

ADDRESS:

1930 Hi Line Drive Dallas, Texas 75207

TELEPHONE: (214) 655-8843

(214) 655-8864

SYSTEM REQUI	REMENTS			
Computer Model:  Memory: 256k	HP 1000 Models 40, 45	Peripherals:	System console, paper tape reader/punch. Optional: plotter	
			Optional. pioter	
Operating System:	RTE-6/VM			
Other Software:				
CUSTOMER SUF	PPORT			
Geographic Area Se	upported:			
☐ Worldwide ▼ U.S. (all regions)		pe (all)	☐ Far East (all)	
□ East	☐ Latin America (all) ☐			
□ South □ Midwest				
☐ West	□ □ Sout	h Africa	☐ Australia/N.Z.	
Support Services A	vailable:			
	rt	gineers	☐ remote dial-in☐ program modification	
Additional Support Information and Pricing:  Software Extended Maintenance Contract with system updates available.				
CUSTOMER TRA	INING/DOCUMENTATION			
Training Available: APT & Modules Training Price: \$300.00 per week per student				
Documentation Ava	ilable: APT Programming Manual		Price: <b>\$15.00</b>	
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 150 DATE OF FIRST INSTALLATION: 1976				
ADDITIONAL INF	ORMATION			
Addition	nal pricing data:			
UCC-APT Basic System \$15,000 UCC-APT Intermediate System \$25,000 UCC-APT Advanced Contouring System \$40,000 UCC-APT Lathe Module \$5,000 NC PLOT II Display Graphics Routines \$3,500				
RESPONSIBILITIES	STATEMENT		**************************************	
This software was	developed by an independent software supplier			

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responsible for selection of the software it purchases.

# information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

Printed in U.S.A. 7/81 5953-0646



#### HP USE ONLY

I.D. Code:

Application Code: 25.11002

Expiration Date:

Product Name:

Mainframe(s):

ABPLC/1000 Allen Bradley PLC Subsystems

HP1000 E & F Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

System Integrated's ABPLC/1000 and ABPLC/1000 DS are complete subsystems for supervisory control of Allen Bradley Programmable Logic Controller networks. ABPLC/1000DS adds the additional capability of combining two ABPLC/1000 systems into one synchronized supervisory system.

<u>Direct Operator Control</u>. ABPLC/1000(DS) allow the operator direct control over all PLC's defined in the AB network. Each PLC may be accessed independently to upload, download, or verify PLC programs. The user may also re-define the AB network on-line.

Automatic Control. The user may write control processes to monitor and act on PLC conditions automatically in a simple command language. The processing may perform all direct functions as well as conditional branching and arithmatic functions. Up to 10 processes may execute concurrently and may be synchronized in a variety of manners. Processing may also be suspended until external conditions occur.

Processing of Unsolicited Messages. Messages generated by PLC control logic are processed according to user defintions. Messages are logged to disk for historical purposes, cause data to be read from a PLC, generate alarm conditions, or begin user defined processing described above.

Periodic PLC Scanning. Up to 10 separate scans may be defined. Each scan may read up to 96 discrete points and 12 analog points from any combination of PLC's. The scans will be done periodically until terminated and will report data only when data has changed (to limit system overhead). The data is available to all user modules for historical purposes.

<u>Modular Design</u>. Features of the package allow the user to write customized software for specific needs or to use existing capabilities in a broad range of applications.

 $\overline{\text{DS/1000}}$ . The ABPLC/1000DS package allows synchronization between two CPU's. This effectively doubles all limits. All DS communications are performed transparently to the user.

Retail Price:

\$5,000.00

Company Name:

Systems Integrated

Contacts:

L. Pomatto

Address:

1451 Irvine Blvd., Ste. 24

Tustin, CA 92680

Telephone: 714/544/6656

SYSTEM REQUIREMENTS				
Computer Model: HP1000 model 40 or better.	Peripherals:			
Memory: 80 K bytes.				
Operating System: RTE 4/6				
Other Software: None				
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide       □ Canada       □ Europe (all)         XX U.S. (all regions)       □ Mexico       □         □ East       □ Latin America (all)       □				
XX South				
☐ Midwest ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐				
Support Services Available:				
	XX remote dial-in XX program modification			
Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: On-site, 5 days Includes installing system, if required.  Price: \$5,000.00				
Documentation Available: None	Price:			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 5 DATE OF FIRST INSTALLATION: 9/1/81				
ADDITIONAL INFORMATION				

# Software Supplier **Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code:

25.21001

Expiration Date:

Product Name:

COMPOUND SURFACE MILLING (CSM-2)

Mainframe(s):

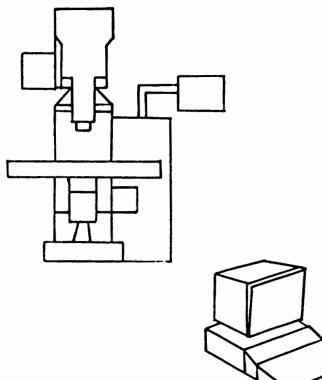
9845B

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Designed for modeling and aerodynamic testing this system may be used in any compound-surface milling operation from turbine blades to boat-building. The input is sets of coefficients for bi-cubic surface patches generated manually or by a CAD system. The output is control and positioning instructions in ASCII or EIA code to drive a three-axis milling, drilling and boring machine. This system is ideal for the designer with a less than top priority project who must wait for company or computer resources to come available. With this software he can punch a tape in minutes and take it directly to an outside jobber.

# **FEATURES**

- . Scaling selectable at run time
- . Number and fineness of tool pass is variable
- . Automatic offset correction for tool shape and size
- . Graphic verification at run time
- . Easily interfaced directly to a machine tool
- . Easily adapted to a five-axis machine
- . Easily adapted to other forms of surface-generating equations



Retail Price:

\$8000 Basic 5 Year Renewable License

Company Name: Porter Data Systems

Contacts:

Address:

470 Buckeye Drive

Colorado Springs, Colorado 80919

Telephone:

(303) 599-5548

SYSTEM REQUIR	EMENTS			
Computer Model;	9845B Opt 150	Periphera	ls:	
Memory:	187K bytes	9884A Tape Pu		
Operating System:	BASIC	98034B HPIB I 98412A I/O RO		
Other Software:			ed Programming ROM	
CUSTOMER SUP	PORT			
Geographic Area S	upported:			
<ul><li>✗ Worldwide</li><li>☐ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	) ☐ Mexico ° ☐ Latin America (all) ☐ ☐			
Support Services A	vailable:			
n phone-in suppor	t (X) mail-in su ng (X) on-site sy		□ remote dial-in □ program modification	
	Information and Pricing: on request			
CUSTOMER TRAI	INING/DOCUMENTATION			
Training Available:	On-site consulting and	d training	Price: \$500/day + T/E	
Documentation Available: Operator's Manual		1	Price: Included in basic license	
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: April 1982				
ADDITIONAL INF	FORMATION			
Due to the flexibility of this software and the variability of machine tool configurations we recommend that the prospective customer plan for some custom modification.				
This system is currently being modified for use on the $9826/9836$ in BASIC and PASCAL.				
RESPONSIBILITIES	STATEMENT			

# Software Supplier Product Summary

HP USE ONLY

I.D. Code:

Application Code: 26.11001

**Expiration Date:** 

Product Name:

J/PICS Process Information & Control System

Mainframe(s):

HP1000, Models 45 & 65

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

J/PICS is a user-friendly process control software system designed for convenient implementation, operation and maintenance of process computer information and control applications. J/PICS consists of three main functional components: 1) CRT Interactive Data Base Generation Software; 2) Process Scan, Compute, Alarm and Control Software (Analog and Digital); and 3) CRT Interactive Operator Display software (optionally with Color Graphics). J/PICS fill-in-the-CRT-blanks allows the user to define his process in engineering units and English. It supports the functions of scanning, conversion, limit checking, alarming, control, historical data collection, operator interface with color graphics, logging, trending and averaging. It supports both batch and continuous type processes, as well as DDC, supervisory, cascade, and adaptive control loops. J/PICS allows the user to take points in and out of scan, substitute values, set or reset digital points, and generate reports. The generation of the data base can be done off-line, or on-line to perform addition, deletion, and modification without impacting the execution of the real-time system. J/PICS is modular in design, therefore, well suited for both distributed and centralized systems. The major features of J/PICS which make this an economical and user oriented system are:

- J/PICS serves both batch and continuous process information and control applications with a maximum of 10,000 points and 2,000 DDC and cascade control loops.
- J/PICS makes efficient use of memory through the use of overlays for low priority functions.
- J/PICS provides convenient operator interface to preselected displays and printouts of pertinent process information & control actions.
- J/PICS conveniently interfaces with user-supplied FORTRAN programs for special computations and reports.
- J/PICS interfaces with many different multiplexers for local and remote data acquisition and control.
- J/PICS interfaces with many different CRT terminals.

Retail Price:

\$30,000-\$45,000

Company Name:

SCIENTIFIC SYSTEMS SERVICES, INC.

Contacts: Mr. Pat Huff

1135 John Rodes Blvd.

Director of Sales

Address:

P. O. Box 610

Melbourne, Florida 32901

Mr. John Redrup, Jr.

Telephone: 305-725-1300

Manager

SYSTEM REQUIR	EMENTS				
Computer Model:	HP-1000, Model 45 or 65		Peripherals: Disk 20M bytes		
Memory:	256K bytes minimum		7970E Mag Tape Drive (1600 bpi)		
Operating System:	RTE-IVB, RTE-6/VM				
Other Software:	FORTRAN 4X, FORTRAN 77				
CUSTOMER SUP	PORT				
Geographic Area S					
🗷 U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐ —————				
Support Services A	vailable:				
☼ phone-in suppor ☒ on-site consultir	t ⊡x mail-in supp og ∑x on-site syste	ort ems engineers	□ remote dial-in  ☑ program modification		
Additional Support	Information and Pricing:				
CUSTOMER TRAI	NING/DOCUMENTATION				
Training Available: 5 days on-site Price: Included in package price					
Documentation Ava	ulable: User's Manual, Tec	hnical Manual	Price: Included in package price		
Documentation Available in other languages: None					
NUMBER OF INSTALLATIONS: 9 DATE OF FIRST INSTALLATION: March 1979					
ADDITIONAL INFORMATION					
DESDONSIBILITIES	CTATEMENT				

# **SOFTWARE SUPPLIER PRODUCT SUMMARY**

HP USE ONLY

I.D. Code:

Application Code: 26.11002

**Expiration Date:** 

PRODUCT NAME

MAINFRAME(S)

EKOCON/1000 PROCESS SUPERVISORY SYSTEM

**HP 1000** A, E & F Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Product Abstract:

The EKOCON/1000 process supervisory system has been designed to facilitate monitoring and control of industrial processes. The system collects and manages process data. Complete information about the process is made available to process supervisors via graphic

EKOCON/1000 System also provides the means for closed loop control of process variables.

2. Basic Product Information:

EKOCON/1000 process supervisory system is comprised of nucleus system surrounded by subsystems. Each subsystem is tailored to its application and in turn, is overseen by the nucleus system. Subsystems evaluate input from measurements and produce data for process control, event registration and numerous other systems. Available subsystems:

acquisition of analog measurements

- basic calculation of analog variables
- acquisition of binary measurements
- basic calculation of binary variables
- binary output
- process data analysis closed loop control
- limit value calculation

- mean value calculationanalog data history management
- display functions
  - measurement groups
    - trends
    - histograms
    - alarm status
    - event histories

3. User Specific Details:

- up to 4000 measured to calculated analog variables
- up to 4000 measured or calculated binary (ON/OFF) variables
- manually updated variables
- user defined point identification of variables
- any number of warning or alarm limits associated with each analog variable
- separately definable alarm lists and process event summaries for each terminal
- new measurements and calculated variables can be added and implemented on-line

Major Features and Benefits:

EKOCON/1000 is fully tested modern process supervisory system which allows short start-up time.

Ease of Operation

- process supervisors need no special training in computer use
- modular system logic makes the system flexible and easy to update
- comprehensive and clear documentation

EKOCON/1000 data can be utilized in other applications within the company, e.g., production control - maintenance

EKOCON/1000 has been designed using the most modern methods

- modularity at all levels
- system parameters are managed by an IMAGE/1000 data base management system
- programs manage real-time values (no need for global access)
- macro-statements increase program readability

Nucleus System - \$42,600 - See reverse side for additional RETAIL PRICE:

information on pricing of subsystems.

CONTACTS: Mr. Seppo Aarnio COMPANY NAME: EKONO Inc., Atlanta Office

Mr.Olli Hartikainen

ADDRESS:

380 Interstate North Parkwav, Suite 475

Atlanta, GA 30339 U.S.A.

TELEPHONE:

(404) 952-3615

SYSTEM REQUIREMENTS				
Computer Model: HP/1000 Models 40,45,60,65 Peripherals:	HP2645A/HP2648A			
A-Series Memory: 256kb minimum	HP2631A/HP2631G HP2240/HP2250 M&C Processor			
Operating System: RTE-IVB RTE-6/VM, RTE-A.1				
Other Software  GRAPHICS/1000 (optional)  IMAGE/1000 (optional)				
CUSTOMER SUPPORT				
Geographic Area Supported.				
Image: Compact of the property of				
Support Services Available.				
<ul><li></li></ul>	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>			
Additional Support Information and Pricing.  Initial on-site installation by Ekono is included in proservices pricing depends on application.	ogram package. Other support			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available. On site training	Price: incl in program package			
Documentation Available Operator's GUide System Engineer's Guide	Price: incl in program package			
Documentation Available in other languages: German, Swedish, Fin	nish			
NUMBER OF INSTALLATIONS: 2 DATE OF FIRST INS	TALLATION: April 30, 1980			
ADDITIONAL INFORMATION Optional subsystems are priced as follows:  - acquisition of analog measurements: \$24,100 - limit value checking; 14,200 - mean value calculation; 22,700 - display of measurement groups; 6,000  Ekono, Inc. is headquartered in Helsinki, Finland. All current referenced installations are located in Europe.				
DECDONCIBII ITIEC CTATEMENT				

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# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 26.21001

**Expiration Date:** 

Product Name:

NATURAL GAS FLOW MEASUREMENT AND ACCOUNTING SYSTEM

Mainframe(s):

HP 9835/45, 9826 through HP 3000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This package calculates gas flow under standard conditions given integration counts from orifice meter charts, turbine meter charts and displacement meter charts. Volume or energy projections may be made for any delivery pressure or time period. Basic station data for the meter located at a gas well or in a pipeline is permanently filed. Chart counts and changes in station data are logged chronologically. Volume calculations may be made over any time interval and changes in orifice meter or gas properties are properly accounted for. All correction factors are calculated in accordance with the American Gas Association Gas Measurement Committee Report Number 3. Supercompressibility calculations are current through July 7, 1978. This system may be used for flow calculations on any gas or liquid flow with appropriate modifications.

This product has been installed on a variety of main frames from desktop to minicomputer with mass storage ranging from tape only to large disk based systems. The software can be modified easily to interface directly with chart integration machines. Some installations incorporate telecommunications.

Energy, utility, transportation, pipeline and storage companies are prospective customers. Any company who uses orifice meters for gas or liquid flow measurement can benefit a great deal from fast, accurate results. Large amounts of money may be saved by the decrease in chart processing time and the ability to process more data with the same personnel. Accurate invoices may be ready days or weeks earlier.

Retail Price:

Prices start at \$5,000

Company Name:

Contacts:

Porter Data Systems

Fred Porter

Address:

470 Buckeye Drive Colorado Springs, CO 80919

Telephone:

(303) 599-5548 Colorado Springs (303) 623-8081 Denver

SYSTEM REQUIREMENTS				
Computer Model: Memory:		erals: Line printer exible disc drive		
Operating System:	Basic			
Other Software:	Not required			
CUSTOMER SUPPO	DRT			
Geographic Area Sup	pported:			
☐ South ☐ Midwest ☐ West	Latin America (all)			
Support Services Ava		d'alla		
☐ ☐ on-site consulting	(X mail-in support 口 on-site systems engineers	□Xremote dial-in □Xprogram modification		
Additional Support Ir	nformation and Pricing:			
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:	On-site training available	Price: \$400.00 per day		
Documentation Avail	able: Customized documentation available at customers request	Price: \$40.00 per hour		
Documentation Avail	able in other languages: Available upon request			
NUMBER OF INSTA	ALLATIONS: 3 DATE OF FIRST INSTA	ALLATION: March 1979		
ADDITIONAL INFORMATION				
	rbon chromotography software package is al heating values and specific gravity of ga			
DESDONSIBILITIES S	TATEMENT			



# 3 Computer-Aided-Testing (CAT)

- 31 Laboratory Test Automation
- 32 Production Test Automation
- 39 Other

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 31.21001

**Expiration Date:** 

Product Name:

Mainframe(s):

DIGITAL OSCILLOSCOPE SIMULATOR

HP 9845 B/T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This program in conjunction with the 9845 B/T computer and the HP 6942A Multiprogrammer performs many functions of a digital oscilliscope. It can handle up to 4 data channels and store up to 2048 points per channel. The maximum sampling rate is 33 Khz.

There are a variety of triggering modes built into the program, including pre-event and post-event trigger. As supplied, internal trigger is not used, but it could easily be added, by the user.

The data can be displayed in one of several ways including single channel, multi-channel, and XY display.

Data can be averaged over a number of runs if desired, and derivatives or Fourier transforms of the data can be calculated. Averaging is relatively slow, compared to commercial analyzers.

Data and status can be saved on tape for later use. The real time clock of the 6942A is utilized and a frequency counter is included.

Program control is by means of menu and programmed keys, thus providing easy, friendly operation.

Retail Price:

\$295.00

Company Name: BRIGGS & STRATTON CORPORATION

Contacts: R. K. Mitchell

Address:

P.O. Box 702, Milwaukee, WI 53201

Telephone:

414/259-5324

SYSTEM REQUIREMENTS				
Computer Model: HP 9845 B/T	Peripherals: HP 6942A Multi-			
Memory: 187 K	programmer, including counter, timer, relay,			
Operating System: NA	A/D, and memory cards, HP-IB interface, I/O ROM,			
Other Software: None	Graphics ROM			
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide □ Canada □ Europe (all)   ▼ U.S. (all regions) □ Mexico □				
Support Services Available:				
	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>			
Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: None	Price:			
Documentation Available: Operation manual; user "HELPS" in Price:  program; program code is open and heavily documented. (over 1500 lines of BASIC code) Documentation Available in other languages: English only				
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: March, 1982				
ADDITIONAL INFORMATION				

## RESPONSIBILITIES STATEMENT

# Software Supplier **Product Summary**

**HP USE ONLY** 

I.D. Code: 10043

Application Code: 31.31001

Expiration Date:

Product Name:

Mainframe(s):

ComputerCoal

HP-85

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The earliest version of ComputerCoal was written on the HP-9815 computer in 1978. The program has been rewritten and upgraded to take advantage of the HP-85's expanded capabilities.

ComputerCoal is designed to adapt to any size coal laboratory or any ASTM coal analysis configuration. ComputerCoal is written for the standard HP-85 with 16K RAM memory. Various hardware configurations are supported: disc drives, tape cartridges, and HP82905A dot matrix printers (peripherals require additional 16K RAM memory).

# ComputerCoal Features:

- Data entry of 1 to 20 samples simultaneously
- Storage and Retrieval of Incomplete Samples
- Immediate Access of up to 1500 Samples
- Final Results for Samples in Memory of Files at any time
- Weighted Analysis Results for Single Sample or Composite
- Over 90 types of Monthly, Quarterly and Yearly Sample Reports
- Selective File Scanning for different Sample Categories
- Graphic Representation of Weighted Analysis Results

# Options Available:

- Direct Data Input from Analytical Balances
- Extended Training in Coal Analysis Procedures
- Letter size printouts for Coal Reports
- Program Customization
- Batch Processing (120 samples at one time)

Retail Price:

\$2495

Company Name: Scientific Frontiers, Inc

Contacts:

440 S. Lincoln Ave., Box 880036

Greg H. Smith Jeff Troeger

Address:

Steamboat Springs, CO 80488

Telephone:

(303) 879-1228

SYSTEM REQUIREMENTS				
Computer Model: HP-83/85		Peripherals:		
Memory: 16K Standard, 32	K with Options	Disc, Printer (Optional)		
Operating System: Depends on	Options			
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
☐ South ☐	nerica (all)			
Support Services Available:				
IX phone in support IX on-site consulting		<ul><li>□ rémote dial-in</li><li>□ program modification</li></ul>		
Additional Support Information a	nd Pricing:			
Scientific Frontiers, I requirements.	nc. will modify ComputerCo	al to the licencee's		
CUSTOMER TRAINING/DOCU	MENTATION			
Training Available: The program and manual are easily mastered Price: in a few hours. If there is a need for development of a coal program, SFI has Coal Chemists available for consulting.  Documentation Available: Price: 41 page manual written for experienced coal technician or chemist.  Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:				
ADDITIONAL INFORMATION				
Scientific Frontiers, Inc. is a laboratory design and software company providing laboratory computerization, consulting as well as computer programs (canned or custom) for the laboratory industry.  See Cat. # 500-9001 ChemInventory				
DECRONOLDILITIES STATEMENT				

# RESPONSIBILITIES STATEMENT

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

31.92001

Mainframe(s)

Program Title

9835A/9845B

RF TEST SYSTEM OPERATING SOFTWARE

# **Program Description**

The 11724A/11725A Software package for the 8955A RF Test System is optimized for the less experienced or casual user of automated transceiver test equipment. The 8955A is a powerful, versatile system which is capable of automatically performing a wide variety of AM and FM transceiver measurements without the need for any programming investment.

For the more experienced and sophisticated users, the 11724A/11725A operating system offers many useful features as well. You can create and maintain test libraries and procedures. You can easily interact with them and modify them for specific requirements. The many powerful features of this software add to its usefulness for the experienced user, who will quickly recognize its remarkable value.

### **Executive Program**

The executive is the main program in the 11724A/11725A software. It is effectively a complete operating system written for automatic test applications. The executive program allows easy soft-key control of all aspects of system operation.

Extensive "help text" guides the user through system operation, explaining how to use each feature of the software. You can display a list of the available tests, choose those you want to run, and generate a test program automatically. You can then run this program, stop it, repeat tests, change parameters or re-start program execution, all with simple soft-key control.

### Autogen - Automatic Program Generator

The automatic program generator utility program is used to assemble a complete, running test program from a list of desired tests. To use this utility program, you simply type in the numbers of the tests you want to run (for example, "101, 102, 103" — see the 8955A Technical Data Sheet for a list of available tests) and press the AUTOGN key.

The system will load the desired tests, find the required subprograms and load them, and then store the completed program. This program can then be run, copied, edited, or purged just like any other program.

# Verification and Diagnostic Utility

This program performs a check for proper instrument operation. When this program runs, it asks the operator to make several simple connections using the 8956A System Interface front panel. It then measures the performance of all of the instruments in the system. While it cannot verify that the instruments are completely calibrated, there is a very high confidence that the system is functioning properly when this test finishes.

If a problem is detected, the diagnostic portion of this program makes a few more checks and then indicates the likely cause. In some cases a fault cannot be isolated to a single instrument. Then, the system lists the possible faults for further manual checks.

### System Calibration Utility

This utility program calibrates the insertion loss of the RF paths in the 8956A System Interface. An 11800A calibration kit, which is part of the 8955A system, is required.

This program asks the operator to connect the signal generator and power sensor to various RF ports on the system interface. It measures the insertion loss at several frequencies and then calculates the coefficients  $A_0 & K$  for the insertion loss equation:

$$\mathbf{A} = \mathbf{A}_0 + \mathbf{K} f^{(1/2)}$$

which is used by the system to correct for interface RF insertion loss. (This relationship describes the conductor losses in a transmission line where f = the signal frequency.)

### Configuration Utility

The 8955A system supports over 40 options, many of them additional instruments. Since the system software is fully automatic, it needs to know which instruments are present in the system. The configuration utility is supplied for this purpose.

This program displays the current software configuration on the controller CRT. By making simple entries, you can easily change the configuration to match your installed hardware. Each system is supplied from the factory with the proper configuration.

### **Test Libraries**

Over sixty standard tests are included with the 11724A/11725A software package. These tests use the EIA and CEPT standards for transmitter and receiver tests. Examples of these tests are receiver usable sensitivity and transmitter frequency stability. A list is in the 8955A Technical Data Sheet.

All of the tests are available with the automatic program generator. Additional tests can be written by your customer, and the supplied tests can be modified for specific requirements. The software documentation explain how to do this.

# ORDERING/HARDWARE INFORMATION

Mainframe(s): 9835A

9845B

**Price:** \$5,000

\$5,000

HP Software Part Number: 11724A

11725A

**Options:** 110, 201, 500

175, 438

Peripherals:

8955A RF Test System, including 8956A, 8656A, 8901A, 8903A, 436A.

Also supported: 8662A, 8568A, 3325A, 6002A, 59501A, 9895A, 9876A.

Comments:

Hardware configuration depends on measurements desired. See the

8955A Technical Data Sheet (5953-8373) for detailed configuration

information.

Contact your local HP Sales Office for more information. Ask for "Instrument Sales".

# HEWLETT-PACKARD SOFTWARE SUMMARY



Application Code:

31.92002

Mainframe(s) 9826A, 9836A

Program Title

19800A WAVEFORM MEASUREMENT LIBRARY

# PROGRAM DESCRIPTION

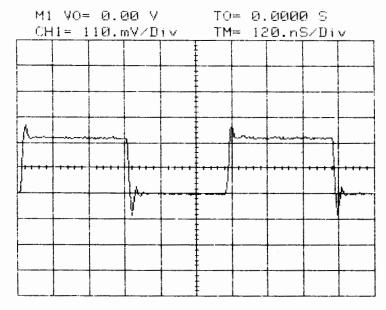
Linking the HP 1980A/B Oscilloscope Measurement System to HP computers, the HP Model 19800A Waveform Measurement Library contains the software needed to characterize and compare time-domain waveforms automatically. The HP 19800A can make measurements on the first day and substantially reduces the time needed to develop software for specific applications.

The HP 19800A Waveform Measurement Library consists of three parts that together provide a powerful software tool for solving time-domain measurement problems.

1) The Measurement Program, which requires no additional programming before it can be used, provides completely automatic time-domain measurements on the day the system arrives. It is a complete program that characterizes many of the most commonly measured pulse parameters to meet the measurement needs of a variety of environments. The measurement program also illustrates how the library subprograms can be assembled to solve specific applications.

The measurement program characterizes many different kinds of waveforms. After you select the desired channel and signal coupling, the computer instructs the 1980A/B's Auto-Scope to scale the signal. After the signal is digitally stored and transferred to the computer, the computer examines the waveform data to determine whether there is sufficient information within the waveform. If there is not sufficient information within the waveform data for the measurement, the waveform is automatically rescaled to improve the measurement resolution. The following illustration shows an example of results obtained when using the measurement program.

## **MEASUREMENT PROGRAM RESULTS**



\*\*\* RESULIS \*\*\*

Period Frequency + Width - Width Rise time Fall time Volts RMS Volts p-p	692.2 1.445 357.4 335.1 8.8 7.2 123.	MHz nS nS nS nS nV mV
Volts avg	13.7	

2) The library subprograms, a collection of 36 routines, perform many different functions and are the key to the HP 19800A's measurement capability. They can be mixed and matched to solve a variety of applications and are designed to be an easy to use, flexible approach to solving time-domain measurement problems.

The subprograms can be divided into five functional groups: Waveform Characterization, Waveform Comparison, Waveform Setup, Waveform Data Management, and General Utilities.

Waveform characterization subprograms provide an extensive and versatile set of parametric, time-domain measurements; they make voltage and timing measurements using waveform data from both the 1980A/B's Trigger Flag and the HP 19860A Digital Waveform Storage option. Waveform comparison subprograms provide an efficient and flexible means of performing limit tests on waveform parameters. Waveform setup subprograms reduce test time and eliminate operator setup errors by automatically setting up the 1980A/B. Waveform data management subprograms control the HP 19860A option and direct the movement of waveform data records. They are also used to create and control and waveform data base where permanent records of waveform can be stored. General utilities subprograms manage the interaction between the user and the system; they initialize HP-IB, help debug programs under development, output results, plot waveforms, and control instrument setup data.

To help meet changing measurement needs, the library subprograms can be tailored, or subprograms that perform specialized functions can be added to the HP 19800A.

3) The program development aids are included to simplify the writing of main programs. The 19800A Operating and Programming Manual provides complete documentation for the library subprograms and step-by-step instructions for developing main programs.

A starter main program is provided that contains the variable declarations needed in all main programs. The 19800A also provides an autoloader that links the subprograms to the main program automatically.

The subprograms provide parameter checking and can report improper parameter values during the debugging stage. After the program has been debugged, you can make a permanent record of it on the mass storage medium. The program is now ready to run and can make the desired measurements.

# ORDERING/HARDWARE INFORMATION

Mainframe(s): 9826A, 9836A w/BASIC 2.0 Language System

Price: \$1000.00

HP Software Part Number: 19800A

Memory Options: 98256A 256 k Byte External RAM Memory Board

ROM: Non

Peripherals: Supported but not required — HPGL Graphics Plotters (7470A or 9872

C/T), Graphics Printers (26316, 2671G or 2673A)

Comments: 1980A/B Opt 860 Oscilloscope Measurement System must be used with

the 19800A.

Contact your local HP Sales Office for additional information.



# REFERENCED SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

LD Code:

32.11001 Application Code:

Expiration Date: 9/1/82

PRODUCT NAME

ATLAS/1000 Entry Level Compilation System (Model 92111E)

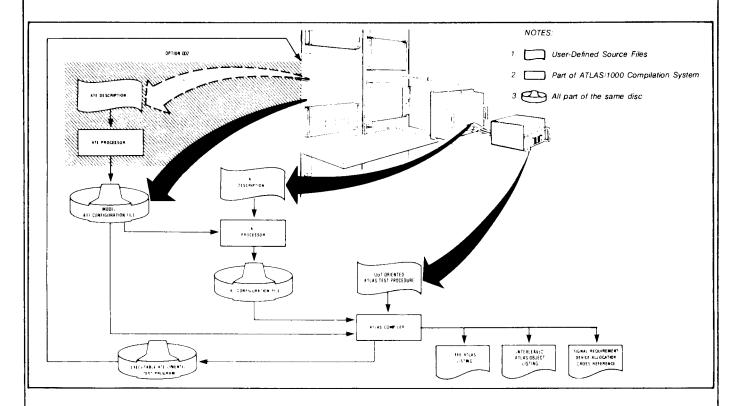
MAINFRAME(S)

HP 1000 E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Model 92111E ATLAS/1000 is a low-cost, entry level starter set for new and potential ATLAS language ATE users. A growth path allows users to begin ATLAS training and to gain ATLAS compilation experience with "E" and to graduate as needed into more complex 92111D and ATLAS-80 systems options.

The 92111E compilation system consists of six elements: (1) an execute-only ATLAS/1000 compilation system copy, (2) a configured ATE file for a model system, (3) an A/I (adapter/interface) processor, (4) self-paced ATLAS learning modules and manuals, (5) an execute-only configured RTE and BASIC/1000 operating system that allows easy installation and operation of the compilation system and (6) a system checkout program. The simplified diagram below shows the functional elements of the ATLAS/1000 — 92111E compilation system required to produce object test programs.



RETAIL PRICE:

\$9,500.00

COMPANY NAME: Lexico Enterprises, Inc.

Applications Support Division

1200 112th Avenue, N.E., Suite C-179

Bellevue, Washington 98004

TELEPHONE:

ADDRESS:

(206) 455-0743

CONTACTS:

Al Rogers

**Product Manager** 

SYSTEM REQUIREMENTS				
Computer Model: HP 1000 Models 40, 45	Peripherals: Line	printer recommended		
Memory: 256k bytes				
Operating System: RTE-IVB				
Other Software: BASIC/1000D				
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ U.S. (all regions)       □ Mexico       □         □ East       □ Latin America (all)       □         □ South       □       □		☐ Far East (all) ☐ ☐ ☐ ☐ ☐ Australia/N.Z.		
Support Services Available:				
		□ remote dial-in ☑ program modification		
Additional Support Information and Pricing:				
Software Support Service \$5,000/year				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: Comprehensive self-paced Study Manual Exercises included.	and	Price: Additional training optional at extra cost.		
Documentation Available: One set of HP quality product and training manuals included.  Price: Additional manuals Sets \$220/each				
Documentation Available in other languages.				
NUMBER OF INSTALLATIONS: 35 DATE OF FIRST INSTALLATION: 1975				
ADDITIONAL INFORMATION				
RESPONSIBILITIES STATEMENT				

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.



# REFERENCED SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

LD. Code: Application Code:

32.11002

Expiration Date: 9/1/82

PRODUCT NAME

MAINFRAME(S)

ATLAS/1000 Software Compilation System For Digital Applications (Model 92111D)

HP 1000 E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

ATLAS (Abbreviated Test Language for All Systems) is an English-like, high-level language for describing electronic equipment test procedures. ATLAS statements describe actions to be accomplished in an unambiguous, self-documenting format which can be translated by a computer system into instructions that control automatic test equipment (ATE). The ATLAS language structure is defined in ANSI/IEEE 416 Specification.

ATLAS/1000 is a software compilation system designed for use in HP 1000 Computer Systems. ATLAS/ 1000 translates test procedures written in IEEE 416 ATLAS into object test programs that control HP automatic test systems (HP-ATS/1000) with an HP 9415A Digital Test Unit or an HP DTS 70 Digital Test System.

## **FEATURES**

- High-level, test system independent language statements that are UUT oriented.
- A comprehensive analog and digital subset that is compatible with and meets the standards of the ANSI/IEEE-416 ATLAS Language Specification.
- Automatically allocates ATE resources required by test specifications at program compilation time.
- Allow external procedures to be executed for testing embedded microprocessors, IEEE 488/ARINC/MIL STD Bus systems, and fault isolation systems.
- User-defined adapter/interface and ATE descriptions and processor files allow tracking of ATE configuration changes, so that an ATLAS test procedure may compile into object test programs for many different analog/digital target ATE systems.
- Includes provisions for use of external stimulus and compare data files from current automatic digital test pattern generation software.
- Provides a variety of auxiliary listings which assist in test procedure preparation, test program validation, and program transportability. Programming relaxations are automatically reconstructed to meet ANSI/ IEEE documentation standards.
- Comprehensive three-level ATLAS training curriculum is available at the LEXICO ATLAS/ATE Support Center. This training comes either as part of the compiler system package or separately in regularly scheduled classes. On-site instruction is also available.
- Complete source-level code and documentation are available from LEXICO to meet the varying needs of ATLAS/1000 system users.

RETAIL PRICE: \$45,000

COMPANY NAME: Lexico Enterprises, Inc.

CONTACTS:

Al Rogers

1200 112th Avenue, N.E., Suite C-179

Product Manager

ADDRESS:

Bellevue, Washington 98004

Applications Support Division

TELEPHONE:

(206) 455-0743

SYSTEM REQUIREMENTS				
Computer Model: HP 1000 Models 40, 45 or	above Peripherals: Line printer recommended			
Memory: 256k bytes				
Operating System: RTE-IVB				
Other Software: BASIC/1000D				
CUSTOMER SUPPORT				
Geographic Area Supported:				
Worldwide	□ Europe (all) □ Far East (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
Support Services Available:				
☒ phone-in support    ☒ mail-in sup      ☒ on-site consulting    ☒ on-site sy:	pport remote dial-in stems engineers program modification			
Additional Support Information and Pricing:				
Software Support Service \$5,000/year				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: Two students for ATLAS/100 Two students for Level IIIA				
Documentation Available: Two sets of documentation included with product.  Price: Additional manual sets \$150/each				
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 35 DATE OF FIRST INSTALLATION: 1975				
ADDITIONAL INFORMATION				
Versions of this product were developed and sold by HP from 1975 to 1979. Sales, development and support responsibilities were transferred to Lexico in October 1979. Lexico currently has total support responsibility.				
•				
RESPONSIBILITIES STATEMENT				

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.



# REFERENCED SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 32.11003

Expiration Date: 9/1/82

PRODUCT NAME

ATLAS-80 Compilation System (Model 1080)

MAINFRAME(S)

HP 1000 E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

ATLAS-80 is the ATLAS Compilation System for the 1980s. This ATLAS compiler is a comprehensive implementation of the most current ANSI/IEEE 416 ATLAS Language Specification. ATLAS (Abbreviated Test Language for All systems) is an English-like, high-level language for describing equipment test procedures. ATLAS statements describe actions to be accomplished in an unambiguous, self-documenting format which can be compiled by a computer system into instructions that control automatic test equipment (ATE). The ATLAS language is defined and controlled by the ANSI/IEEE 416 Specification.

The ATLAS-80 system is a compact table-driven compilation system with all elements that are changeable, such as the ATLAS language syntax, contained in virtual memory data files. This implementation allows the compiler to be easily maintained and upgraded while at the same time keeping the actual compiler small and transportable.

Because of its data table design, ATLAS-80 will support multiple "recognized" ATLAS Subsets such as the Avionics ATLAS Subset specified by ARINC 616 or future DOD/"International" ATLAS Subsets. In addition, changes to the ANSI/IEEE ATLAS Specification (usually twice per year) can be readily implemented.

ATLAS-80 was designed to be compatible with the field-proven ATLAS/1000 Compilation System family to allow cost-effective upgrades from existing ATLAS and ATE support software investments. The capability to compile test programs to different types of ATE run-time systems and controllers is a significant feature. ATLAS test procedures can be compiled to execute on HP ATS/1000 ATE systems in addition to HP Desktop Computer (IEEE 488) based test systems using optional ATE Processors.

## **FEATURES**

- High-level, test system independent language statements that are UUT (unit-under-test) oriented.
- Compiles ATLAS test procedures to execute on HP ATS/1000 and HP 9826/35/45 ATE controllers.
- Includes IEEE ATLAS capabilities for execution of External Modules, Bus Protocols for testing imbedded microprocessors, and use of IEEE 488/ARINC 429/MIL STD 1553 Bus systems.
- Optional support services are available, including custom run-time configurations; Test Program Set development; and ATE system consulting.
- Supported with complete instruction and reference manuals in the ATLAS/1000 tradition.
- Modular organization and useful options provide a cost effective ATLAS solution that can be tailored to any level of use.
- Comprehensive ATLAS training support is available at the LEXICO ATLAS/ATE Support Center. On-site and custom instruction is also available.

RETAIL PRICE:

\$35,000

COMPANY NAME: Lexico Enterprises, Inc.

CONTACTS:

Al Rogers

ADDRESS:

Applications Support Division

Product Manager

1200 112th Ave., N.E., Suite C-179 Bellevue, Washington 98004

TELEPHONE:

(206) 455-0743

SYSTEM REQUIREMENTS		
Computer Model: HP 1000 Models 40, 45 or above other HP 1000s supported as special Memory: 128k bytes	Peripherals: Line	printer recommended
Operating System: RTE-IVB (std.)		
Other Software: BASIC/1000D		
CUSTOMER SUPPORT		
Geographic Area Supported:		
□ U.S. (all regions) □ Mexico □ East □ Latin America (all) □ South □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Far East (all)
Support Services Available:		
		remote dial-in program modification
Additional Support Information and Pricing: Software Support Service \$5,000/year		
CUSTOMER TRAINING/DOCUMENTATION		<u> </u>
Training Available: ATLAS Programming Course Advanced ATLAS and ATE Targeting		ice: \$1000 \$1500
Documentation Available: One copy of 3 manual sets p training manual provided	<b>lus</b> Pr	ice: \$150/additional manual set
Documentation Available in other languages:		\$100/additional training manual
NUMBER OF INSTALLATIONS: 6	TE OF FIRST INSTALLA	TION: 1980
ADDITIONAL INFORMATION		
This ATLAS Compiler System was developed as a current ANSI/IEEE 416 — 1981 ATLAS Compto supplement the widely used ATLAS/1000 sys	iler that operates on HP	
RESPONSIBILITIES STATEMENT	, , , , , , , , , , , , , , , , , , , ,	
This software was developed by an independent software supplied responsible for its software and support services. HP is not the man		

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.

# Software Supplier **Product Summary**

HP USE ONLY

I.D. Code:

Contacts: J. Lindauer

Application Code: 32.11004

**Expiration Date:** 

Product Name:	Mainframe(s):
PLANA/1000	HP-1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PLANA/1000 is a software package written in FORTRAN IV designed for use with an HP-1000 minicomputer system. PLANA provides accuracy enhancement for the HP-8409-Series Network Analyzer Systems. The network analyzer system and the basis for its automation are described in the Operating and Service Manual for the HP-8409 Automatic Network Analyzer (HP Part No. 08099-90047). PLANA embodies all of the concepts provided with the standard HP-11836D software; the user/programmer is encouraged to refer to the Operating and Programming Manual (HP Part No.1863-90009) for background material.

The PLANA program provides for hardware calibration, device measurement, complex vector mathematics, plotting of data output, disc- and tape-file management, an interactive operator interface, and control of the phase-locked frequency source subsystem and other instrumentation through the HP-IB (IEEE 488) interface.

# FEATURES:

Error Correction - Supports 4 error models: 3-vector, one-port; 6 vector (two ports on HP-8743); 12 vector (two ports on HP 8745); and, 1 vector (S<sub>21</sub> normalization only) for rapid measurements.

Resolution - .02 dB amplitude, .1° phase, .1 ns delay, and 100 Hz in frequency.

Connector - APC-7, Type N, APC 3.5 and SMA. Both offset shorts and shielded open are supported (frequency-dependent capacitance values are used).

Output Formats - S-parameters, VSWR, impedance, admittance, group delay, MAG and K. Data may be displayed in tabular, graphed, or printed form.

File Manipulation - Both calibration and measured data may be saved on disc files. Measured data files may then be used to form a data base for permanent performance records.

Multi-tasking - Since PLANA runs under RTE-IVB, multiple copies of the program may be run simultaneously. Thus, several different network analyzers may be controlled from one HP-1000 minicomputer.

Retail Price: \$10,000 U.S.

Company Name: Compact Engineering

a Division of CGIS

Address: 1131 San Antonio Road Palo Alto, CA 94303

Telephone: (415) 966-8440

SYSTEM REQUIR	EMENTS			
Computer Model:	HP-1000		Peripherals:	HP-8409 ANALYZER
Memory:	128K bytes			HP-2648 TERMINAL
Operating System:	RTE IV B			
Other Software:	NONE			
CUSTOMER SUPI	PORT			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Geographic Area S	upported:			
<ul><li>☒ Worldwide</li><li>☒ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Canada ☐ Mexico ☐ Latin America (all) ☐		<b>x</b>	ar East (all)  Tokyo  L  L  L  L  L  L  L  L  L  L  L  L  L
Support Services A				
	rt Ä mail-in sup ng □ on-site syst	port tems engineers		emote dial-in rogram modification
Additional Support	Information and Pricing: S	Software Suppor	t Service \$1	1000/year
CUSTOMER TRAI	INING/DOCUMENTATION			
Training Available:	Seminar		Price	e: On Request
Documentation Ava	ailable: User Manual		Price	e: \$25.00
Documentation Ava	ailable in other languages: No	one	•	
NUMBER OF INSTALLATIONS: 3 DATE OF FIRST INSTALLATION: Jan. '81				
ADDITIONAL INF	FORMATION		, , , ,	
RESPONSIBILITIES	STATEMENT			

# Software Supplier **Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 32.21001

**Expiration Date:** 

Product Name:

Mainframe(s):

METER

HP 9826/36 FAMILY

(Automated Meter Calibrator from the ATACAL family)

HP 1000 FAMILY

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

METER is a completely automatic meter calibrator package for digital, analog and GPIB meters. As the first member of the ATACAL family of sophisticated automated calibration software, METER has unique features and construction to insure that your software investment is protected from obsolescence due to hardware or calibration requirements changes. A friendly, fast sequence to SELECT/LOAD/RUN the desired meter calibration program insures the highest speed in the calibration sequence. For GPIB meters, the tests are completely closed-loop, with no operator interaction required after hook-up. Over 100 meter calibration procedure files are available from the ATA library, and new meters can be added by ATA for a nominal fee. However, if you wish to develop calibration programs to your own in-house requirements, or respond quickly to the need for a new procedure file, your calibrators can generate any new procedures in less than 30 minutes with NO programming knowledge. Only knowledge of the calibration requirements is needed, using the interactive, English language procedure generator to produce procedure files for digital, analog, or GPIB meters. The highly abbreviated nature of the procedure files allows over 300 meter procedure files to be stored on a single 5 1/4 inch floppy for nearly instantaneous selection, loading, and execution. There is NO requirement for manual searches through stacks of diskettes. This highly structured software consists of the following major components:

PROCEDURE FILES - contains the meter test specifications

INTERPRETER

- performs actual tests according to specifications in

the procedure files.

GENERATOR DRIVERS

- a menu-driven calibration procedure file generator.

- separate drivers control the hardware according to the

instructions of the Interpreter.

DOCUMENTER

- interprets the procedure files to produce English language test documentation. A very useful provision

for meeting Quality Assurance requirements.

With its highly modular construction, METER can grow with your needs, adding new procedures, incorporating new tests in old procedure files, and upgrading test equipment and controllers, all without obsoleting your investment in software. Best of all, METER will be compatable with an entire family of calibration software coming from ATA.

Retail Price: \$2,500 to 3,500 with English-language Instruction Manual (\$100 for Instruction Manual only).

Company Name: AUTOMATED TECHNOLOGY ASSOCIATES

Contacts: TOM PEARSON

Address:

P.O. BOX 19737

INDIANAPOLIS, INDIANA 46219

Telephone:

(317) 842-9488

·		
Peripherals: Fluke 5100 Series Calibrators*		
ther meter calibrators,		
□ Far East (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
□ remote dial-in □ program modification*		
Additional Support Information and Pricing: *On-site support and program and modifications provided on a Time and Materials basis. Contact ATA for quote.		
Price:		
Price: Include with software (\$100 Manual only)		
(\$100 handar only)		
ST INSTALLATION:		
ATA provides HP+ Software Products, Consulting, and Custom Software for a wide range of Computer-Aided-Test (CAT) and Graphics applications. ATA software developers and consultants are engineers, scientists, and senior technicians with years of practical experience in the design and implementation of cost effective CAT solutions to the quality and productivity problems of the manufacturing industry. This insures a full understanding of your requirements and effective, systems solutions for your automation needs.  Software maintenance and update services are also available for this package. Contact supplier for details.		

# RESPONSIBILITIES STATEMENT

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

32,92001

Mainframe(s) Program Title

85F RF TEST SET STARTER SOFTWARE

# Software Description

The 11723B software package for the 8953A Transceiver Test Set is a modular, flexible, expandable RF test software product intended for use as a basis for custom software development for testing AM and FM transceivers. In many cases, customized software can significantly reduce test costs, but complete custom software development cannot be economically justified. For these applications, the 11723B represents an unsurpassed value.

The 11723B is modular in structure. It includes a main (demo) program, instrument subprograms, and measurement subprograms. Time-tested and thoroughly documented, these subprograms have completed much of the work necessary in transceiver test applications. With the main programs supplied, the software can be used immediately when it is received to prove system performance.

There are also a number of applications for which extensive software development cannot easily be justified. For these applications, the comprehensive 11724A/11725A RF Test System Operating Software for the 8955A RF Test System may represent the best alternative. This software is described separately.

### Instrument Subprograms

Instrument subprograms, which are part of the 11723B package, are provided to control the measurement functions of the instruments in the 8953A Transceiver Test Set. These range from simple tasks, such as setting signal levels, through complex procedures such as prompting the operator to adjust controls on the unit under test. In addition to the standard instruments provided with the 8953A, you can use an 8662A Signal Generator to perform out-of-channel measurements. The 8953A technical data sheet includes a list of instrument subprograms.

### Measurement Subprograms

The measurement subprograms included with the 11723B perform actual transceiver measurements using EIA or CEPT standards. They can easily be modified for other standards as well. Some examples of these measurements are receiver usable sensitivity, transmitter microphone sensitivity, and instantaneous modulation limiting. A complete list of the supplied measurement subprograms is provided in the 8953A technical data sheet.

The measurement subprograms call the instrument subprograms to control the measurement cycle. Thus, hardware configuration may be updated with minor software implications since hardware-dependent procedures are limited to the instrument subprograms.

# ORDERING/HARDWARE INFORMATION Mainframe(s): 85F

Price: \$100

HP Software Part Number: 11723B

Memory Options: 82903A (32K total)

Peripherals:

8953A Transceiver Test Set, including 8954A, 8656A, 8901A, 8903A.

Also supported: 8662A.

Comments: See the 8953A Technical Data Sheet (5953-8370) for more information

about hardware and measurement capabilities.

Contact your local HP Sales Office for more information. Ask for "Instrument Sales".

# **HEWLETT-PACKARD** SOFTWARE SUMMARY

Application Code: ompute Museum

32.92002

Mainframe(s)

Program Title

9826A/9836A

RF TEST SET STARTER SOFTWARE

# Software Description

The 11790A/B software package for the 8953A Transceiver Test Set is a modular, flexible, expandable RF test software product intended for use as a basis for custom software development for testing AM and FM transceivers. In many cases, customized software can significantly reduce test costs, but complete custom software development cannot be economically justified. For these applications, the 11790A/B represents an unsurpassed value.

The 11790 is modular in structure. It includes a main (demo) program, instrument subprograms, and measurement subprograms. Time-tested and thoroughly documented, these subprograms have completed much of the work necessary in transceiver test applications. With the main programs supplied, the software can be used immediately when it is received to prove system performance.

There are also a number of applications for which extensive software development cannot easily be justified. For these applications, the comprehensive 11724A/11725A RF Test System Operating Software for the 8955A RF Test System may represent the best alternative. This software is described separately.

### Instrument Subprograms

Instrument subprograms, which are part of the 11790 package, are provided to control the measurement functions of the instruments in the 8953A Transceiver Test Set. These range from simple tasks, such as setting signal levels, through complex procedures such as prompting the operator to adjust controls on the unit under test while displaying an analog meter face on the controller CRT. In addition to the standard instruments provided with the 8953A, many other instruments are supported. See "Peripherals," below. The 8953A technical data sheet includes a list of instrument subprograms.

### Measurement Subprograms

The measurement subprograms included with the 11790 perform actual transceiver measurements using EIA or CEPT standards. They can easily be modified for other standards as well. Some examples of these measurements are receiver usable sensitivity, transmitter microphone sensitivity, and instantaneous modulation limiting. A complete list of the supplied measurement subprograms is provided in the 8953A technical data sheet.

The measurement subprograms call the instrument subprograms to control the measurement cycle. Thus, hardware configuration may be updated with minor software implications since hardware-dependent procedures are limited to the instrument subprograms.

### Interface Calibration Program

The 11790B, which supports the 8956A System Interface, also includes an interface calibration program. This program characterizes the insertion loss of 24 RF paths in the 8956A as a function of frequency. The calibration factors are stored in a data file, which is then used by the measurement subprograms to correct for RF path insertion loss. This program requires about 20 minutes for a complete calibration. Loss accuracy is typically  $\pm 0.3$  to 0.5 dB on the main transmit and receive paths.

Interface calibration is not required with the 8954A interface (11790A program).

# ORDERING/HARDWARE INFORMATION

Mainframe(s): 9826A, 9836A

**Price:** \$250

\$350

HP Software Part Number: 11790A

11790B

Memory Options: 98256A

ROMs: Option 011 or 711

Peripherals: 8953A Transceiver Test Set, including 8954A(11790A) or 8956A(11790B), 8656A, 8901A, 8903A.

Also supported: 8662A, 436A, 3586C, 8568A, 8566A, 3325A, 6002A,

6034A, 59501A.

See the 8953A Technical Data Sheet (5953-8370) and the 8953A option Comments:

100 Technical Data Sheet (5953-8375) for more information about

hardware and measurement capabilities.

Contact your local HP Sales Office for more information. Ask for "Instrument Sales".

# 4 Mathematics & Statistics

- 41 Mathematics
- 42 Statistics
- 43 Modelling
- 44 Simulation
- 49 Other

# **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 41.11001 Expiration Date: 1/1/83

Product Name:

Mainframe(s):

MATH/1000

HP 1000 L/M/E/F

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

MATH/1000 is matrix spread sheet similar to VisiCalc\*. The CRT is used as a "window" into the matrix and provides the means to add headings, names, values, and equations into matrix locations. The value of one location may be dependent on the value in another through the use of a defination. A MATH model may be saved as a disc file and the results can be printed out. Most common business and scientific functions are available.

- MATH will run on any HP CRT including the HP 2621. It can be programmed to run on certain other CRTs also.
- The matrix holds 2600 elements and can be configured anywhere between 26 columns x 100 rows or 52 columns x 50 rows.
- MATH uses a 25-page partition and has 4 segments. No other systems resources are required.
- The eight input and display formats include octal, hexadecimal, and scientific notation.
- MATH commands can be quickly learned by the secretary. engineer, or businessman. All commands are self-prompting.
- Typical applications include: sales and cash budgeting; inventory evaluation; forecasting; venture analysis; scientific and engineering models. The engineer no longer has to write a FORTRAN program to complete the design of the system.
- MATH comes with a full manual detailing the commands and functions. It also has a reference card and tutorial file, which is used to guide the new user through each of the commands.
- VisiCalc is a registered trademark of Personal Software, Inc.

Retail Price: \$250 (until January 31, 1982); \$450 (after January 31, 1982)

Company Name: COMPROG

Contacts:

Dick Minor

Address:

15206 Leadwell Street Van Nuys, CA 91405

Telephone:

**(714)** 592-1855

SYSTEM REQUIREMENTS	
Computer Model: HP 1000 L/M/E/F	Peripherals: Any HP CRT Terminal
Memory: 25 Page Partition	·
Operating System: RTE-XL; RTE-IVA; RTE-IVB; RTE-6VM	
Other Software:	
CUSTOMER SUPPORT	
□ West □ □ South Africa	
Support Services Available:	
<ul><li>□ phone-in support</li><li>□ on-site consulting</li><li>□ on-site systems engineers</li></ul>	☐ remote dial-in☐ program modification☐
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Tutorial File & Manual	Price:
Documentation Available: Additional Reference Manual - S Additional Reference Card - S	\$10.00 Price: \$ 1.00
Documentation Available in other languages: English only	
NUMBER OF INSTALLATIONS: 10 DATE OF FIRS	ST INSTALLATION: 10/1/81
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT  This software was developed by an independent software supplier for open responsible for its software and support services. HP is not the manufacture endorsement, representation or warranty, express or implied, with respect to	r or co-developer of this software and makes no

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 41.21001

Expiration Date:

Product Name:

Mainframe(s):

PROTRATABLE

9845 B/T/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

**PROTRATABLE** 

Programmable Tabular Data Manager

## Features:

- 1. In minutes prepare row and column headings for complex charts of any widths of various columns and rapidly fill in entry data or acquire from files.
- 2. Perform partial or full row or column totals or a wide variety of arithmetic manipulations of full, partial or selected rows or columns.
- 3. Sort.
- 4. Create your own programs instantly: By entering a 'record program' mode while manually performing arithemtic operations on rows and columns of data you will create a program you may retain, file and reuse at will. Example: It is very easy to quickly build your own payroll program by simply performing one full manual calculation on rows and columns you set up yourself! Yet it's only one of thousands of such programs you may rapidly create for yourself, all built around data tables arranged quickly to your own convience!
- 5. Imbed text between tables.
- 6. Extraordinary time-savings in rapidly setting up and loading and manipulating and updating business tables and reports that have traditionally required large programming efforts and costs. Now do it yourself in a fraction of the time it would take a programmer, and without need for any traditional programming knowledge whatsoever!
- 7. Convenient manipulation and recalculation with large data arrays, with full availability of H-P numeric function set, full H-P algebraic capability, plus use of user-defined functions.
- 8. Versions and maxdata set sizes differ for different machine memory configurations.

Retail Price:

\$500.00 plus tax, shipping. Media extra. Disks or tapes available. \$100.00 plus tax, shipping for additional copies. Media extra

Company Name:

PROTRACOA

Contacts:

David Kleitman

Address:

1134 Aster Ave., Suite K Sunnyvale, CA 94086

Telephone:

(415) 948-6611

SYSTEM REQUIR	EMENTS					
Computer Model:	9845 B/T/C	Pe	eripherals:			
Memory:	187K required					
Operating System:						
Other Software:						
CUSTOMER SUP	PORT					
Geographic Area S	upported:					
□ Worldwide □ U.S. (all regions) □ East □ South □ Midwest □ West  Support Services A	☐ Canada ☐ Mexico ☐ Latin America (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	□ □ South Africa	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
phone-in suppor     on-site consultir	t ☐ mail-in su ng ☐ on-site sy	upport ystems engineers	☐ remote dial-in ✗ program modification			
	Additional Support Information and Pricing: Willing to establish agency agreements outside U.S.					
Training Available:			Price:			
Documentation Ava	ailable:		Price:			
Documentation Ava	ailable in other languages:					
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: 1981						
ADDITIONAL INF	ORMATION					
This program was developed totally independent of "Visicalc" (TM), hence has many different and additional features. It does, however, serve many of the same applications as "Visicalc".						
RESPONSIBILITIES	STATEMENT					

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## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 41.21002

**Expiration Date:** 

Product Name:

# SIMULTANEOUS NONLINEAR EQUATIONS

Mainframe(s):

HP 9845 B/T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This program allows the user to solve a system of up to 40 simultaneous non-linear equations.

First, the user types in the system of equations.

Next, the program will prompt for:

- the number of equations
- the maximum acceptable error
- the maximum number of iterations
- a first quess for each of the unknowns

The program then begins automatically and displays the results of each iteration to aid in monitoring convergence.

A second order Newton-Raphson convergence scheme is used along with a modified Gauss-Jordan reduction to solve the linearized system at each iteration.

This software is useful when the user is familiar with the system of equations and has good initial guesses for the unknowns. The Newton-Raphson method is, in general, quite sensitive to the initial quesses.

The example solved in the user instructions involves chemical equilibria and requires seven simultaneous non-linear equations in seven unknowns. After the "order-of-magnitude" guesses are input, the program requires a little more than one minute to successfully converge.

Note: Available August 1, 1982

Retail Price:

\$125

Company Name:

Contacts:

Address:

**KELIX SOFTWARE SYSTEMS** 

425 DAVENTRY DRIVE

BATON ROUGE, LOUISIANA 70808

Telephone: (504) 769-6785

Telephone:

SYSTEM REQUIREMENTS				
Computer Model: HP-9845B/T	Peripherals: NONE			
Memory: Standard				
Operating System: Standard				
Other Software: NONE				
CUSTOMER SUPPORT				
Geographic Area Supported:				
☐ South ☐	Far East (all)			
Support Services Available:				
<ul><li>☒ phone-in support</li><li>☒ mail-in support</li><li>☐ on-site consulting</li><li>☐ on-site systems engineer</li></ul>	□ remote dial-in ers ☑ program modification			
Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available:	Price:			
Documentation Available:	Price:			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: DATE OF	FIRST INSTALLATION:			
ADDITIONAL INFORMATION				
RESPONSIBILITIES STATEMENT				

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# **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 41.21003

Expiration Date:

Product Name:

Mainframe(s):

PROTRATABLES:6

9836, 26, 16

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Advanced "Spreadsheet": Tabular Data Manager

"PROTRATABLES:6" for HP 9836, 9826, 9816

Available Dec. 1982. This is an adaptation of the 9845 PROTRATABLES tabular data manager system.

Why PROTRATABLES? Facilities, conveniences and capabilities beyond those of current popular competetive systems. Design objective was/is performance and enhanced capability. Examples: Sort. Alphabetize/ Generate reports with text and several tables. Customized reports to mailing lists extracting data from the array. Advanced computation system. Rows and columns in printout in any order, now just 'Windows'. Calculations in the order you want, not just row by row or col. by col. Individually variable col. widths. Graphics outputs. A 'Hook' to allow you to tie your own programs in with the system. Etc. Etc.

Manual included.

Retail Price:

\$500

Company Name: Protracoa

Contacts: D. Kleitman

12387 Stonebrook Dr.

Los Altos Hills, CA

94022

Address:

1134 K Aster Ave. Sunnyvale, CA 94086

Telephone:

(415) 948-6611

SYSTEM REQUIRE	MENTS			
Computer Model:	9836, 26, 16	Peripherals: Any printer		
Memory: 256+		(Plotter desirable)		
Operating System:	Basic			
Other Software:				
CUSTOMER SUPPO	DRT			
Geographic Area Sup	ported:			
√ U.S. (all regions)		(all)		
Support Services Ava	ilable:			
☼ phone-in support ☼ on-site consulting		☐ remote dial-in eers ☐ program modification		
S.F. Bay area (	only formation and Pricing:	. •		
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:		Price:		
Documentation Availa	able:   fanua	Price: (Included)		
Documentation Avail	able in other languages:			
New adaptation NUMBER OF INSTALLATIONS: to 9836, 26, 16DATE OF FIRST INSTALLATION: (1982)				
ADDITIONAL INFO	RMATION			
<u> </u>				

#### RESPONSIBILITIES STATEMENT

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# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

41.22001

Mainframe(s) Series 200; 9845B/C Program Title

NUMERICAL ANALYSIS LIBRARY, VOL. I

#### **Program Description**

This software package contains a large number of numerical analysis techniques written in the form of subroutines which may be added to application programs. Simple drivers for the subroutines are also included so that they may be used as stand-alone programs.

For input, data and parameters for the routines may be passed as parameters in the statement calling the numerical analysis subroutine from the application program. Alternatively, the data and parameters may be entered from the keyboard in response to prompts from the simple driver programs which are furnished.

The following routines are included in the package:

Root Finders

Bisection Method Modified Secant Method Muller's Method

Polynomial Root Finder

Integration

Simpson's Rule

Filon's Method (Trigonometric functions) Cautious Adaptive Romberg Extrapolation Integration with Equally Spaced Points Integration with Unequally Spaced Points

Ordinary Differential Equations

Runge-Kutta Method

Adams-Bashford-Moulton Method

Linear Algebraic Systems

Linear Equation Solver

Triangular Decomposition of a Matrix

Solution of a Linear System (using Triangular Decomposition)

Positive Definite Matrices

Cholesky Decomposition of a Matrix

Solution of a Linear System (using Cholesky Decomposition)

Prime Factorization of an Integer Inverse of a Positive Definite Matrix

Lower Triangular Matrices

Inverse of a Lower Triangular Matrix

Symmetric Storage of a Matrix

Eigen Analysis

Eigenvalues and Eigenvectors of a Real Matrix

Complex Eigenvectors of a Real Upper-Hessenberg Matrix

Real Eigenvectors of a Real Upper-Hessenberg Matrix

Eigenvalues of a Real Matrix

Eigenvalues and Eigenvectors of a Real Symmetric Matrix

Interpolation

Confluent Divided Differences

Newton Interpolation with Backward Differences

Newton Interpolation with Forward Differences

Cubic Spline Interpolation

Chebyschev Polynomial Interpolation

#### Functions

Hyperbolic Cosine Hyperbolic Sine Hyperbolic Tangent Gamma Function Log Gamma Function

Complex Functions: Addition Complex Functions: Multiplication Complex Functions: Division Complex Functions: Square Root Complex Functions: Exponential Complex Functions: Natural Log Complex Functions: Absolute Value

Complex Functions: Evaluation of a Complex Polynomial

#### Miscellaneous

Fourier Series Coefficients (Equal Spacing) Fourier Series Coefficients (Unequal Spacing)

Fast Fourier Transform

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9816A/9826A/9836A \$500

9845B/C \$500

Price: **HP Software Part Number:** 

98821A - opt. 630 3½", opt. 650 5¼" external, opt. 655 5¼" internal

09845-10350

Memory Options:

98256A

Language/ROMs: BASIC 2.0

Peripherals:

Comments:

Contact your local HP Sales Office for additional information



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

41.22002

Mainframe(s) 9826A/9836A

Program Title

VisiCalc<sup>®</sup>

#### **Program Description**

VisiCalc<sup>††</sup> is a powerful tool which helps to solve many problems normally done with pencil, paper and calculator. It allows the user to set up a form or worksheet, enter changes to one or more figures in a matrix, and quickly assess the impact of those changes on related data. It saves considerable time and provides a means to explore many different options in a short period of time.

Many common and tedious problems are solved by repetitive calculations on variable information. Examples of these tasks are: calculating sales projections, budgets, costs estimates, engineering changes, financial ratios, product pricing, and many other applications where "What if?" questions are asked.

VisiCalc's "electronic worksheet" is segmented into rows and columns thus creating cells. These cells can contain either text, values, or mathematical expressions. The computer's screen becomes a window into this large electronic worksheet. The window can be moved vertically or horizontally so that any part of the worksheet is visible. It can also be split such that any two sections of the worksheet can be viewed simultaneously.

As an example, the following screen shows a simple product profit analysis.

D8 (V) 897.45		AC) 207
A B C 1PROFIT ANALYSIS FOR SUPER		E
2 3 *	•	% VAD
SList Price	5995.00	125.00
<b>&amp;W</b> holesale Discounts	1199.00	25.00
7Value After Discounts	4796.00	100.00
₿ Direct Labor	897.45	18.71
Direct Material	223.65	4.66
10 O.E.M. Material	79.19	1.65
11Total Production Cost	1200.29	25.03
12Warranty Costs	467.61	9.75
13New Product Development	599.50	12.50
14Marketing & Advertising	911.24	19.00
15Administrative Overhead	378.88	7.90
160ther Income/Expense	63.79	1.33
17 Total Cost	3621.31	75.51
18Operating Profit	1174.69	24.49
19Taxes (@ 62%)	728.31	15.19
2#Net Profit	446.38	9.31

Changing the cost of direct labor (cell D8) has the following immediate effect on the remainder of the screen.

D8 (V) 667.95		AC) 207
A D C	ď	E
\$PROFIT ANALYSIS FOR SUPER	WIDGET	
3	\$	% VAD
\$List Price	5995.00	125.00
<b>&amp;W</b> holesale Discounts	1199.00	25.00
7Valve After Discounts	4796.00	100.00
B Direct Labor	667.95	13.93
Direct Material	223.65	4.66
10 O.E.M. Material	79.19	1.65
11Total Production Cost	970.79	20.24
12Warranty Costs	467 61	9.75
13New Product Development	599.50	12.50
14Marketing & Advertising	911.24	19.00
15Administrative Overhead	378.88	7.90
160ther Income/Expense	63.79	1.33
17 Total Cost	3391.81	70.72
18Operating Profit	1404.19	29.28
19Taxes (8 62%)	670.60	18.15
2#Net Profit	533.59	11.13

This simple example illustrates how changing a single value on the worksheet can effect other dependent values.

To execute the 98810A VisiCalc<sup>®</sup> software, a 9826A or 9836A is required with a minimum of 256K of RAM. (The software is operating system independent.) Additionally an HP-IB printer is needed to obtain hard copy output.

A right to reproduce product, 98810M VisiCalc<sup>®</sup>, is also available for those who desire more than one copy of the VisiCalc<sup>®</sup> software. This allows one copy of the 98810A VisiCalc<sup>®</sup> product to be made for use on an additional mainframe at a significantly lower cost.

\*VisiCalc® is a registered trademark of Personal Software Inc.

#### ORDERING/HARDWARE INFORMATION

**Mainframe(s):** 9826A or 9836A

**Price:** 98810A = \$250.00, 98910M# = \$125.00

**HP Software Part Number:** 98810A or 98810M# **Memory Options:** 256K RAM required

98256A 256K-byte RAM memory board suggested

**ROMs:** Not applicable.

Software is operating system independent.

**Peripherals:** HP-IB printer (i.e. 2671A/G, 9876A, 2631A/G, etc.)

# 98810M provides the right to make one copy of the 98810A VisiCalc® product. 98810A and 98810M are not

Comments: sub-liscenseable.

Contact your local HP Sales Office for additional information

# **Software Supplier Product Summary**



**HP USE ONLY** 

I.D. Code: 10077

Application Code: 41.31001

Expiration Date:

P	rod	luct	Na	me:
_	, , ,		IVA	1111111111

Telephone:

Mainframe(s):

muMATH/muSIMP-80

HP-86/87 CP/M System

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

muMATH is a fully interactive symbolic math system that efficiently and accurately performs true algebraic and analytic operation. These operations are beyond the built-in facilities of the traditional scientific programming languages such as APL, BASIC, FORTRAN, PASCAL, or PL/I. muMATH can evaluate and simplify expressions containing variables that have not been assigned numeric values. For example muMATH can automatically expand expressions over a common denominator, employ trigonometric identities to simplify expressions, and symbolically integrate expressions exactly. Matrix inverses and matrix products can be computed by muMATH even when the matrices contain non-numeric entries. The arithmetic performed on numerical coefficients of variables is exact rational arithmetic for numbers exceeding 600 decimal digits.

muSIMP is the general purpose programming language in which muMATH is written. muSIMP was designed especially for implementing computer algebra systems. It is provided along with muMATH so that users who wish to do so can use muSIMP to extend muMATH or to implement other artificial intelligence applications.

#### APPLICATION DESCRIPTION

The muMATH/muSIMP package comes with the software on disk and includes a manual. The manual gives a full description of how to operate the software, including examples. Included on the disk are modules to perform the following functions: Function Tracing, Rational Arithmetic, Elementry Algebra, Equation Simplification, Equation Solving, Array Operations, Matrix Operations, Logarithmic Simplification, Trigonometric Simplification, Symbolic Differentiation, Symbolic Integration, Extended Symbolic Integration, Taylor Series Expansion, Limits of Functions, and Closedform Summation and Products. The user may also create his own custom modules to implement a particular application.

Retail Price:	\$250.00
Company Na	ne: Contacts:
Address:	SEE "ADDITIONAL INFORMATION" ON BACK

SYSTEM REQUIREMENTS		
Computer Model: HP-86/87		Peripherals:
Memory:		
Operating System: CP/M		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
☑ Worldwide □ Canada   □ U.S. (all regions) □ Mexico   □ East □ Latin America (all)   □ South □		
Support Services Available:		
☐ phone-in support ☐ mail-i	in support te systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support Information and Pricing:		
CUSTOMER TRAINING/DOCUMENTATIO	N	
Training Available:		Price:
Documentation Available: Complete Ins	truction Manual.	Price:
Documentation Available in other languages:	:	
NUMBER OF INSTALLATIONS:	DATE OF FIRS	T INSTALLATION:
ADDITIONAL INFORMATION	ORDERING INFORMATI	TON
Dealers Only	End Users Onl	l <u>y</u>
Software Distributors 9929 W. Jefferson Blvd. Culver City, CA 90230	Discount Soft 6520 Selma Av Los Angeles,	ve Suite 309
Calif. 800 252-4025/213 204-6	620 Calif. 213 8	337-5141
U.S. 800 252-4025	U.S. 800 8	354-2003
OF CONCINUITIES STATEMENT		

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#### HP USE ONLY

I.D. Code:

Application Code: 41.32001

**Expiration Date:** 

Product Name:	Mainframe(s):
Math Application Pac	Series 80

### Software Description:

The Math Application Pac provides quick access to commonly employed mathematical routines for use with calculus, numerical analysis, linear systems, geometry and special functions. The manual describes each program in the pac and provides relevant equations, user instructions and example problems. Programs contained in the Series 80 Math Pac include:

<u>-Simultaneous Equations</u> - solves the system of equations Ax=b by using Gaussian Elimination to ensure a high degree of accuracy. The program handles up to 25 equations and includes an automatic baddata check that detects most cases of illegal data entry.

<u>-Solution to f(x)=0 on an Interval</u> - given a first guess, will search for the real root of the equation f(x)=0, where the user defines the continuous, real-valued function f(x) in the program memory.

Integration with Equally and Unequally Spaced Points - approximate f(x)dx where f(x) is represented by discrete function values at equally or unequally spaced points.

-Ordinary Differential Equations - uses the Runge-Kutta method for solving systems of first order, ordinary differential equations.

-Chebyshev Polynomial - program fits up to 450 points to a Chebyshev polynomial and performs interpolation on the polynomial.

-Fourier Series for Equally and Unequally Spaced Points - performs a Fast Fourier and Inverse Fast Fourier Transform on a set of up to 512 time-domain points.

<u>-Complex Number Operations</u> - Hyperbolic sine, cosine, tangent and their inverses; complex operations: addition, multiplication, division,  $\ln z$ ,  $e^z$ ,  $z^n$ ,  $z^{1/n}$ ; complex polymonial evaluation.

<u>-Triangle Solutions</u> - given any three variables of any defined plane triangle, the other three variables and the area are computed.

NOTE: HP-86/87 software offers data storage and retrieval from disc, data editing, prompt messages, 80-column report layout and "HELP" softkey.

Retail Price: \$95.00	Hewlett-Packard product number _	00085-13005
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SYSTEM REC	DUIREMENTS
Mainframe:	HP-83/85/86/87
ROMs:	
	•
Memory:	
Peripherals:	
ADDITIONAL	INFORMATION
ADDITIONAL	
	·
•	
Disclaimer: HP MAI	KES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTARILITY

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**HP USE ONLY** 

I.D. Code:

Application Code: 42.11001

Expiration Date:

Product Name:

Mainframe(s):

HP 1000

1MSL LIBRARY

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The IMSL Library is a comprehensive set of 495 statistical and mathematical FORTRAN subroutines. These routines are divided into 17 chapters that include statistical capabilities in such areas as correlation and regression analysis, time series analysis and basic statistics. Applied mathematical capabilities include differential equations, curve fitting, eigenvalue problems and linear systems. IMSL subroutines are designed, fully tested, and continuously updated by recognized numerical analysts and statisticians.

EASE OF USE: Only the basic FORTRAN input/output statements need be furnished by the programmer. The IMSL Library provides the essential "building blocks" that can be adapted to solve almost any problem. In addition, the subroutines may be modified to assure flexibility because programmers have access to source code.

MAJOR BENEFITS: An advantage of the IMSL Library is its availability on many computers. Support for the Library includes clear, consistently structured documentation. Above all, the IMSL Library reduces program development time and unnecessary expense.

#### A SUBSCRIPTION INCLUDES:

- Subroutines in Fortran source code on magnetic tape
- A three volume Reference Manaual in both printed and microfiche form
- Automatic distribution of new Library editions
- Maintenance of both Library and Manual between editions
- Consultation by telephone, telex or mail
- A subscription to IMSL User News
- A procedure for suggesting new subroutines for future editions

Worldwide users from industry, government and education look to IMSL for highly accurate and dependable software that is cost effective. Since 1970, IMSL has aided programmers in the development of applications programs by providing products that save both time and money. Over 110,000 people use IMSL software at more than 1,500 sites in 45 countries – and of these, more than 95 percent renew their subscriptions.

Retail Price:

\$2,000 Initial Annual License: Renewals presently \$1,500/yr.

Company Name:

IMSL, Inc.

Contacts:

R. Reynolds

Address:

7500 Bellaire Blvd. Houston, Texas 77036 Sales Manager

Telephone:

(713) 772-1927

SYSTEM REQUIREM	MENTS			
Computer Model:	HP 1000	Peri	pherals:	
Memory:				
Operating System:	RTE-6/VM			
Other Software:	FORTRAN 77			
CUSTOMER SUPPO	RT		•	
Geographic Area Supp	ported:			
☑ Worldwide ☑ U.S. (all regions) ☑ East ☑ South ☑ Midwest ☑ West	☐ Mexico ☐ Latin America (all) ☐ ☐ ☐ ☐			
□ phone-in support				
CUSTOMER TRAINI	NG/DOCUMENTATION			
Training Available:			Price:	
Documentation Available:  User's Manuals included in subscription price.  Documentation Available in other languages:  None  Price: \$40.00 for additional copies New Editions: \$20.00				
NUMBER OF INSTALLATIONS: Over 1,700 DATE OF FIRST INSTALLATION: 1971				
ADDITIONAL INFO				

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# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 42.11002

**Expiration Date:** 

Product Name:

Mainframe(s):

Minitab

HP 3000, HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Minitab is a general-purpose statistical computing system, designed for anyone with data to organize and analyze. Emphasis is on ease of use for engineers, scientists, managers, statisticians, students, and others who need to learn from data.

#### Statistical Features:

Descriptive statistics, including means, medians, standard deviations, and correlations

Multiway tables containing counts (crosstabulations), means, medians, percentages, raw data, etc., in a wide variety of layouts

Regression, with residual analysis, diagonostics, and stepwise procedures

Analysis of variance

Non-parametric methods

Exploratory data analysis, including new techniques developed by John Tukey of Princeton University (based on <u>The ABCs of EDA</u> by Paul Velleman and David Hoaglin)

Time series analysis, including Box-Jenkins identification, estimation, and forecasting, and robust smoothers

#### General Features:

Data management, sorting, ranking, selecting and eliminating subsets of data

Transformations and arithmetic

Plots, histograms, and other displays

Matrix algebra and eigenanalysis

Compact, well-designed output

Compatible interactive and batch modes

On-line HELP file

Low machine overhead

Retail Price: license-to-use on one mainframe by one organization for one year: \$1000 (\$500 for accredited, degree-granting academic institutions)

Company Name: Minitab Project

Contacts: Stephen L. Arnold

Address: 215 Pond Laboratory, University Park PA 16802

Telephone: (814) 865-1595 Telex: 84-2510 PENNSTBSTR SCG

SYSTEM REQUIR	REMENTS HP 3000	IP 1000		
Computer Model:	II, III, 30, 32, 44, 64	60, 65 Peripherals: terminal		
Memory:	256k bytes	64k bytes		
Operating System	:MPE III or IV	RTE 6 VM		
Other Software:	Fortran scientific library	Fortran (4+ or 77)		
CUSTOMER SUP	PORT			
Geographic Area S	Supported:			
☐ U.S. (all regions☐ East☐ South☐ Midwest☐ West☐	s)			
Support Services		□ compte diel :-		
	ort	☐ remote dial-in ngineers ☐ program modi		
Additional Suppor	rt Information and Pricing:			
Source is supplied for the HP 1000 and available for the HP 3000. There is no charge for new releases during the license period. Implementation is the responsibility of the customer.				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available	: in-house short courses (not usually required)	Price: quoted	on request	
Documentation Av	vailable: Minitab Student Handbo			
Documentation Av	Minitab Reference Manu ABCs of EDA vailable in other languages:	12.95		
	none			
NUMBER OF INSTALLATIONS: 650 DATE OF FIRST INSTALLATION: 1972				
ADDITIONAL INFORMATION				
RESPONSIBILITIE	S STATEMENT			

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# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 42.11003

**Expiration Date:** 

Product Name:

Mainframe(s):

OC01/TAT2

ЯР1000 F, A, Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

STAT/1000 is a user friendly, yet highly sophisticated statistical analysis tool designed to assist manufacturing firms in relating process performance and product quality to probable causes. STAT/1000 is flexible and powerful, yet so simple to use that the novice can easily get meaningful results on his first run.

#### **KEY FEATURES:**

- FRIENDLY, MENU DRIVEN USER INTERFACE
- \* INTERACTIVE OR BATCH PROCESSING MODES
- \* DATA INPUT FROM IMAGE OR ASCII FILE
- \* DATA EDITING
- \* DATA TRANSFORMATIONS
- MODERN REGRESSION (MODELING) TECHNIQUES
- \* SIMPLE STATISTICS (MENU, MEDIAN, STANDARD DEVIATION, ETC.)
- \* CORRELATIONS
- \* GRAPHICAL OUTPUT (HISTOGRAMS, SCATTER PLOTS, SMOOTH PLOTS, LABELED VARIABLE BOX PLOTS, ETC.)
- \* PLOT SPOOLER ALLOWS ANALYSIS WHILE PLOTTING

STAT/1000 is a unique and powerful data analysis tool. Eyring Research Institute, Inc. will continue to develop new modules to add to the package. We intend to be sensitive to the needs of our customers, and will attempt to develop these new modules in response to those needs.

The STAT/1000 system includes relocatable object code and libraries, loader command files for easy installation, an installation guide, a Users Manual and a Tutorial Manual.

Retail Price:

\$8,000.00 License; \$4,000 Right to Reproduce

Company Name: Eyring Research Institute, Inc.

Contacts: Mark G. Dixon

Product Manager

Address: 1455 West 820 North

Provo, Utah 84601

Product Manager

Bruce Gurney

Telephone: (801) 375-2434

SYSTEM REQUIREMENTS				
Computer Model: HP1000 F, A,	Peripherals: 7221 or 9872 Plotter			
Memory: 256 K Bytes	2643 or 2623 Terminal 2631G Printer			
Operating System: RTEIVB or RTE A.1				
Other Software: Image, Graphics-1000				
CUSTOMER SUPPORT				
Geographic Area Supported:				
XXWorldwide Canada Europe (all)   U.S. (all regions) Mexico				
Support Services Available:				
XXphone-in support    □ mail-in support      XXon-site consulting    XXon-site systems engineers	□ remote dial-in ③Xprogram modification			
Additional Support Information and Pricing:				
Customer support \$200.00 per month				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: Basic user training in Provo, Utah	Price: \$500/week			
Documentation Available: Manual set	Price: \$30.00			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: February 1932				
ADDITIONAL INFORMATION				
DECRONOLDILITIES STATEMENT				

### RESPONSIBILITIES STATEMENT

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# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 42.21001

Expiration Date:

Computer

PRODUCT NAME

Linear-Equivalent Regressions (LINREG)

MAINFRAME(S)

9845B

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)
This software is well suited for tabled or experimental information. When the data appears to have a fairly simple curvature and when the best description of that curve is not precisely known, then this program is very useful. Transducer calibrations, marketing trend analysis, interpolation and extrapolation of sales data, and aspherical lens design are typical examples of applications of this software.

The purpose of this software package is to fit user supplied data to any or all of the 576 linear equivalent curves in a least squares sense. The basic relationship is

G(Y(I)) = A + B \* F(X(I)).

The user supplies the data pairs - (X(I), Y(I)) where I is the index and (X,Y) are (independent, dependent) values. F and G are computed as described in the next paragraph and standard linear least squares techniques are used to find the best A and B constants.

The data pairs may be easily entered from the keyboard or they come from DATA files used for software which are compatible with HP's statistics and data manipulation software. This program is completely compatible with HP supplied software in these areas. Editing of the data pairs is easy with CHANGE DATA, DELETE DATA, ADD DATA, LIST DATA, SET SCREEN, and SET OFFSET Special Function Keys. This software uses a technique which operates the Special Function Keys when the machine is either busy or waiting. The user can document the data with the ENTER HEADER key with labels for the X and Y values, a title, and a date. The dependent Y values can be weighted individually, statistically, or not at all.

The user selected, best fit curve and the data can be plotted by nothing more than one keystroke, without worrying about scaling, margins, labels, etc. The plot on the CRT is easily transferred to the optional four color, digital plotter (HP 9872A) or other plotter. At any time the printer can be changed by one keystroke.

RETAIL PRICE:

\$400.00

COMPANY NAME:

Coulter Electronics, Inc.

CONTACTS: Dieter Grossegger

ADDRESS:

440 West 20th Street Hialeah, FL 33010

/20E\

(305) 885-0131 Ext. 533

TELEPHONE:

SYSTEM REQUIREMENTS				
Computer Model: HP 9845B	Peripherals:			
Memory: 56K				
Operating System:	A Section of the sect			
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
☐ Worldwide	□ Europe (all) □	□ Far East (all) □		
☐ East ☐ Latin America (	all)			
☐ Midwest ☐				
□ West □	□ South Africa	□ Australia/N.Z.		
Support Services Available:				
	mail-in support on-site systems engineers	☐ remote dial-in☐ program modification		
Additional Support Information and Pricin	g:			
CUSTOMER TRAINING/DOCUMENT	ATION			
Training Available: From manual Price:				
Promise Promis				
Documentation Available: in English Price:				
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTA	LLATION:		
ADDITIONAL INFORMATION				
RESPONSIBILITIES STATEMENT				
responsible for its software and support servi	indent software supplier for operation on HP com- ces. HP is not the manufacturer or co-developer of rranties, express or implied, with respect to this s	such software or support. HP disclaims		

information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.

## **SOFTWARE SUPPLIER** PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 42.21002

Expiration Date:

PRODUCT NAME

CyberBox & Jenkins

Time Series Analysis: forecasting & control

MAINFRAME(S) 9845S / T 9835

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

CyberBox & Jenkins is an implementation of the Box & Jenkins ARIMA stochastic time series analysis philosophy as outlined in Time Series Analysis.. forecasting and control. 2nd Edition.

The program will allow a univariate time series of 500 observations to be transformed, identified, estimated, and forecasted based upon ARIMA (p,d,q) techniques. It allows both seasonal and nonseasonal differencing along with transfer function models.

Values of p & q can vary from Ø to 12 and d from  $\emptyset$  to 3. This allows the specification of very sophisticated models. The program is both menu oriented and prompt driven. All entries are checked for syntax and range; if incorrect, the errors are trapped and the prompt repeated. This makes the program extremely easy to use and very little training is required to become proficient in ARIMA model building and forecasting. All output is on the thermal printer. Data is stored on: T14 or disc.

ARIMA models have found widespread application in the fields of engineering, natural science, operations research, accounting and management. The ability to forecast optimally, to understand dynamic relationships between variables and to control optimally is of great practical importance. For example, ARIMA models are useful for optimal sales forecasts,

inventory management, enrollment projections, forecasting economic variables, and identification of discontinuities in process variables. ARIMA models have found use in the sciences: for animal population studies, weather analysis/ forecasting, crop yield projections, etc. ARIMA techniques are useful in studying any stochastic process that can be observed as a digital time series.

RETAIL PRICE: \$600 US License fee per copy

COMPANY NAME:

CONTACTS: Jerry Adkins

ADDRESS:

CABENENGINEERING CORPORATION

TELEPHONE:

P. O. Box 4143 Huntsville, Alabama 35802 USA 205 / 881 - 8542

#### SYSTEM REQUIREMENTS Computer Model: 9845 S/T or 9835 Peripherals: for 9835: printer, plotter, mass storage unit and Memory: Minimum 64K/186k desirable graphics ROM (124k). Operating System: HP BASIC Other Software: CUSTOMER SUPPORT Geographic Area Supported: ■ Worldwide □ Canada ☐ Europe (all) ☐ Far East (all) ☐ U.S. (all regions) ☐ Mexico □ East ☐ Latin America (all) □ South ☐ Midwest □ West ☐ South Africa ☐ Australia/N.Z. Support Services Available: □ phone-in support mail-in support ☐ remote dial-in on-site consulting ☐ on-site systems engineers □ program modification □ Additional Support Information and Pricing: User's Manual is 125 pages and gives an overview of Box & Jenkins modeling. It includes ten example runs. CUSTOMER TRAINING/DOCUMENTATION Training Available: If user is familiar with Box & Jenkins Price: by special quote philosophy, no training is necessary. Price: \$50.00 US/copy Documentation Available: User's Manual Four-page brochure is available upon request. Documentation Available in other languages: NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: ADDITIONAL INFORMATION Package includes: one program tape, one test data tape,

ADDITIONAL INFORMATION Package includes: one program tape, one test data tape, and a 125-page user's manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.

CyberBox & Jenkins is supplied in a special secured and protected form; it will not be necessary to make a backup tape as CyberEngineering will exchange any program tape that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Shipped from stock upon receipt of payment in US funds.

#### RESPONSIBILITIES STATEMENT

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## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Expiration Date:

Application Code: 42.21003

PRODUCT NAME

Deterministic Time Series Analysis

MAINFRAME(S) 9845 S/T 9826/36

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

This CyberWare software package is an implementation of the iterative Box & Jenkins philosophy of time series analysis: Identification, Estimation, and Diagnostic Checking, but uses deterministic models rather than the ARIMA class of stochastic model.

The identification can be carried out via a very fast DFFT procedure that decomposes the raw time series into its constituent cyclical components or by Anderson's version of the Burg Maximum Entrophy Spectral Analysis (MESA).

The estimation procedure is done by fitting the coefficients of a Fourier model via a cyclic descent procedure that adjusts the frequency(s) and amplitude(s) of the chosen model to minimize the residual sums of squares error. This is the main feature of this package. A utility is available to detrend the data, to apply split-cosine-bell tapering to the data, and allow transforming the data prior to applying the DFFT or calculating the periodogram. A demodulation procedure is included that will demodulate the series and then filter the data with a low pass filter using convergence factors. This procedure will result in a local version of harmonic analysis showing the instantaneous amplitude and phase.

Diagnostic checking is accomplished by plotting the original time series, the fitting model, and the residual noise series. The residual noise series can be analysed via the identification procedures or cross-spectral analysis can be employed to determine if the chosen model was based on all of the available information.

RETAIL PRICE: \$600 US License fee per copy per year

COMPANY NAME:

CONTACTS: Jerry Adkins

ADDRESS:

P. O. Box 4143 Huntsville, Alabama 35802 USA 205 / 881 - 8542

TELEPHONE:

Computer Model: 9845 S/T or 9826/36  Memory Minimum 64K/186K desirable.  Coerating System HP BASIC  Other Software.  CUSTOMER SUPPORT  Geographic Area Supported  Worldwide Canada Canad	SYSTEM REQUIREM	IENTS			
Other Software  CUSTOMER SUPPORT  Geographic Area Supported:    Worldwide	Computer Model: 9845 S/T or 9826/36 Peripherals: graphics printer/plotter.				
CUSTOMER SUPPORT  Geographic Area Supported:    Worldwide	Memory: Minimum	1 64K/186K desirable	e,		
CUSTOMER SUPPORT  Geographic Area Supported:    Worldwide	Operating System: HP	BASIC			
Geographic Area Supported:    Worldwide	Other Software:				
Geographic Area Supported:    Worldwide					
Worldwide   Canada   Europe (all)   Far East (all)     Sauth   Canada	CUSTOMER SUPPO	RT			
□ S (all regions) □ Mexico □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Geographic Area Suppo	orted:			
□ phone-in support □ on-site consulting □ on-site systems engineers □ remote dial-in □ program modification  Additional Support Information and Pricing: Users' Manual is 30 pages including 5 example runs.  CUSTOMER TRAINING/DOCUMENTATION  Training Available If user is familiar with Time Series Modelingsrice by special quote no training is necessary.  Documentation Available: Users' Manual (English) Price \$50.00 US/copy, Four-page brochure is available upon request separately  Documentation Available in other languages:  NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.	US (all regions) ( East South Midwest	☐ Mexico ☐ Latin America (all) ☐ ☐			
■ on-site consulting □ on-site systems engineers ■ program modification  Additional Support Information and Pricing: Users' Manual is 30 pages including 5 example runs.  CUSTOMER TRAINING/DOCUMENTATION  Training Available If user is familiar with Time Series Modeling@rice by special quote no training is necessary.  Documentation Available: Users' Manual (English) Price \$50.00 US/copy, Four-page brochure is available upon request separately  Documentation Available in other languages:  NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.	Support Services Availa	ıble:			
CUSTOMER TRAINING/DOCUMENTATION  Training Available If user is familiar with Time Series Modelingance by special quote no training is necessary.  Documentation Available: Users' Manual (English)  Price \$50.00 US/copy, Four-page brochure is available upon request separately  Documentation Available in other languages:  NUMBER OF INSTALLATIONS:  DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.		_	•		
Training Available If user is familiar with Time Series Modelingfice by special quote no training is necessary.  Documentation Available: Users' Manual (English) Four-page brochure is available upon request separately  Documentation Available in other languages:  NUMBER OF INSTALLATIONS:  DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.	Additional Support Infor	rmation and Pricing: Users	s' Manual is 30 pages	including 5 example runs.	
Documentation Available: Users' Manual (English)  Four-page brochure is available upon request separately  Documentation Available in other languages:  NUMBER OF INSTALLATIONS:  DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.	CUSTOMER TRAININ	NG/DOCUMENTATION			
Documentation Available in other languages:  NUMBER OF INSTALLATIONS:  DATE OF FIRST INSTALLATION:  ADDITIONAL INFORMATION Package includes one program tape, one test data tape, and two copies of the users' manual. A general purpose time series utility program is included on the test data tape. This program is similar to StkUty and ComUty (described elsewhere in BUC) and is used to set up, edit, and update univariate time series data bases.  Cyber4ier is supplied in a special secured and protected form; it will not be necessary to make a backup tape or disk as CyberEngineering will exchange any program tape or disk that becomes defective due to normal use. A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.	-			nggrice: by special quote	
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## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 42.21004 Expiration Date:

PRODUCT NAME

CUBERKALMAN

State Space Time Series Analysis

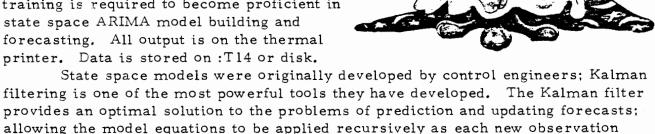
MAINFRAME(S) 9845 S/T 9826/36

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

CyberKalman is an implementation of the Box & Jenkins ARIMA stochastic time series philosophy utilizing state space models. Kalman filtering techniques are used to calculate the minimum mean square linear estimator; this is the extended Gauss-Markov theorem. The advantages of utilizing Kalman filtering theory for maximum likelihood estimation are numerous. This allows the treatment of time series models with unobservable components, modeling systems with time-varying parameters, and facilitates multi-step prediction.

The program will allow a univariate time series of 500 observations to be transformed, identified, estimated and forecasted based upon ARIMA (p,d,q) techniques. It allows both seasonal and nonseasonal differencing.

Values of p & q can vary from Ø to 12 and d from Ø to 3. This allows the specification of very sophisticated models. The program is both menu oriented and prompt driven. All entries are checked for syntax and range; if incorrect, the errors are trapped and the prompt repeated. This makes the program extremely easy to use and very little training is required to become proficient in state space ARIMA model building and forecasting. All output is on the thermal printer. Data is stored on: T14 or disk.



(continued)

RETAIL PRICE:

\$1,000 US License fee per copy per year

COMPANY NAME:

CONTACTS: Jerry Adkins

ADDRESS:

Cyber Engineering Corporation

TELEPHONE:

P. O. Box 4143 Huntsville, Alabama 35802 USA 205 / 881 - 8542

SYSTEM REQUIREMENTS				
Computer Model: 9845 S/T or 9826/36 Perip	herals: Graphics printer/plotter			
Memory: Minimum 64K/186K desirable				
Operating System: HP BASIC				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
☐ East ☐ Latin America (all) ☐	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Support Services Available:				
□ phone-in support ■ mail-in support ■ on-site consulting □ on-site systems engineers	□ remote dial-in ■ program modification			
Additional Support Information and Pricing:  Users' Manual is 50 pages including 10 example	e runs.			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: If user is familiar with Time Series Modeling, no training is necessary.	Price: By special quote			
Documentation Available: Users' Manual (English)  Four-page brochure is available upon request  separately				
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: DATE OF FIR	RST INSTALLATION:			
ADDITIONAL INFORMATION becomes available. As a byproduct of applying the Kalman filter, a series of prediction errors are produced; these may be exploited in modeling systems with time-varying parameters. In a typical application, attention is focused on a set of state variables which can be time-changing.  A general purpose time series utility program is included on the test data tape that can be used to set up, edit and update univariate time series data bases.  A license agreement and nondisclosure form must be signed prior to shipment. Available September 1982. Specifications subject to revision.				
RESPONSIBILITIES STATEMENT				
This software was developed by an independent software supplier for operation	on on HP computer systems. The supplier is solely			

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Application Code:

42.22002

Mainframe(s) 9845B/C **Program Title** 

#### BASIC STATISTICS AND DATA MANIPULATION

#### **Program Description**

Basic Statistics and Data Manipulation (BSDM) provides the capability to create a statistical data base, manipulate the data in various ways, and obtain summary statistics. BSDM performs most of the pre-analysis operations on a data set prior to entering an advanced statistical routine. Because BSDM is included in most of the other HP Statistics Software packages, this package should be purchased only by those who need only limited statistical capabilities, i.e., data manipulation and summary statistics.

Data may be input from keyboard, tape cartridge, disc or cards. Upon input, a rectangular data matrix consisting of variables and observations of those variables is created.

The following data-input routines are included:

- Edit Data correct values, add or delete observations, add or delete variables.
- Transform Data create new variables from existing variables through algebraic transformation.
- Recode Data assign codes to intervals of data.
- Sort arrange data matrtix in ascending order according to a specific variable.
- Subfiles break the data set into smaller subsets.
- Name name the data set, variables, and subfiles.
- Store store data set for later analysis.
- List display all or portions of the data.
- Join join two data sets.

The software package has the following limitations:

- 50 variables maximum on 9845B/C.
- 20 subfiles maximum on 9845B/C.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.

The following sample output gives examples of the Basic Statistics routines included in the software package:

#### BASIC STATISTICS

VARIABLE AGE HEIGHT WEIGHT PRESSURE	# OBSERVATIONS 17 17 17 17	# MISS. VALUES 0 0 0	SUM 641.00000 2944.10000 1165.50000 1336.00000	MEAN 37.70588 173.18235 68.55882 78.58824
VARIABLE AGE HEIGHT WEIGHT PRESSURE	VARIANCE 65.72059 296.32029 53.56132 18.94235	8.10682	COEF OF SKEWNESS 14955 15453 15275 .18191	COEF OF KURTOSIS -1.05559 98176 80680 99892
VARIABLE AGE HEIGHT WEIGHT PRESSURE	COEF VARIATION 21.50016 9.93979 10.67486 5.53808		95 % CONFIDENCE I LOWER LIMIT 33.53671 164.32956 64.79504 76.34994	
AGE HEIGHT WEIGHT		CORRELATION MAT WEIGHT PRESSUR 3330992 .116452 3030744188937 .211133	E 8 9	
		ORDER STATISTI	cs	
VARIABLE AGE HEIGHT WEIGHT PRESSURE	MAXIMUM 52.00000 202.90000 80.50000 87.20000	MINIMUM 24.00000 145.60000 55.60000 72.40000	RANGE 28.00000 57.30000 24.90000 14.80000	MIDRANGE 38.00000 174.25000 68.05000 79.80000
			TUKEY'S HINGES	
VARIABLE AGE HEIGHT WEIGHT PRESSURE	MEDIA 40.0000 176.3000 68.7000 78.2000	30 30.00 30 158.80 30 64.50	000 182.30 000 71.70	3000 3000 3000
VARIABLE AGE HEIGHT WEIGHT PRESSURE	MIDME 38.333 174.455 68.866 78.600	33 38.25 56 173.42 67 68.40	EAN MIDSP 0000 13.00 5000 23.50 0000 7.20	0000 0000
VARIABLE AGE HEIGHT WEIGHT PRESSURE	90-th percent 46.000 139.300 77.200 82.900	00 00 00		

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B/C Price: \$500

HP Software Part Number: 09845-15100

Memory Options:

ROMs:

Peripherals:

Comments:

Contact your local HP Sales Office for additional information



Application Code:
42.22003

Mainframe(s) 9845B/C

Program Title

#### **REGRESSION ANALYSIS METHODS**

#### **Program Description**

This set of routines is capable of performing multiple linear regression with several variations. A residual analysis routine is included. Also included are the routines from Basic Statistics and Data Manipulation (BSDM) (Application Code 22.5501).

Input, data manipulation routines such as transformations, and summary statistics are performed via the BSDM routines.

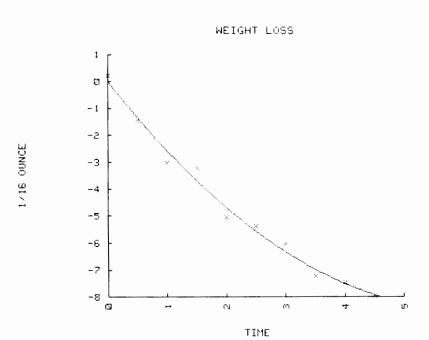
The Regression Analysis Methods packages contain the following routines (in addition to the BSDM routines):

- Multiple linear regression with complete AOV table and confidence intervals on parameters.
- Polynomial regression with plot.
- Multiple linear regression with variable selection procedures (stepwise regression, forward selection, backward elimination, manual selection).
- Residual analysis (residuals may be output in tabular or graphical form).

The software package has the following limitations:

- 50 variables maximum on 9845B/C.
- 20 subfiles maximum on 9845B/C.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.
- Polynomial regression will fit up to a tenth-order polynomial to the data.

The following sample output gives examples of the routines included in the software package:



\*

POLYNOMIAL REGRESSION ON DATA SET:

WEIGHT LOSS

\*

--where: Dependent variable = 1/16 OUNCE Independent variable = TIME

				STANDARD	COEFFICIENT
VARIABLE	Н	MEAN	-VARIANCE	DEVIATION	OF VARIATION
TIME	10	2.25000	2,29167	1.51383	67.28112
1/16 OUNCE	10	-4.65700	7.38240	2.71706	58.34351

CORRELATION = -.980392167768

Selected degree of regression = 2 R-SQUARED = .987755475715

STANDARD ERROR OF ESTIMATE = .340911783137

AOV

SOURCE	DF SUM	OF SQUARES	MEAN SQUARE F	-VALUE
TOTAL	9	66.44161		
REGRESSION	2	65.62806	32.81403	282.34
×^1	1 -	63.86160	63.86160	549.48
X^2	1	1.76646	1.76646	15.20
RESIDUAL	7	.81355	.11622	
	REGRESSIO	N COEFFICI <b>e</b> nts	STANDARD ERROR	!
VARIABLE	STD. FORMAT	E-FORMAT	REG. COEFFICIENT	T-VALUE
/CONSTANT/	00373	372727240100E-02	.26804	01
X^1	-2.80077	280077272767E+01	.27740	-10.10
X^2	.23136 .	231363636446E+00	.05935	3.90
		95 % CAN	FIDENCE INTERVAL	
	COEFFICIENT	LOWER LIMIT		
/CONSTANT/	00373	63771		
X^1	-2.80077	-3.45690		
71 4	2.000,			

#### ORDERING/HARDWARE INFORMATION

.09100

Mainframe(s):

9845B, Opt. 700\*, or 9845C

.23136

Price:

HP Software Part Number:

X^2

\$500 09845-15110

Memory Options:

**ROMs:** 98411A (45B only)

Peripherals:

\* Graphics capabilities are required to obtain plots of polynominal regressions, and residual plots.

.37173

Comments:

Contact your local HP Sales Office for additional information



Application Code:

42.22004

Mainframe(s) 9845B/C

**Program Title** 

#### STATISTICAL GRAPHICS

### **Program Description**

Statistical Graphics is a flexible, easy-to-use set of routines for graphical display of data. It includes all the routines of Basic Statistics and Data Manipulation (BSDM) (Application Code 22.5501).

Data input, manipulation, and summary statistics are performed via BSDM routines. Plotting parameters are chosen automatically by the Statistical Graphics routines. These plotting parameters may be changed easily, if desired, from the keyboard.

The package includes the following routines:

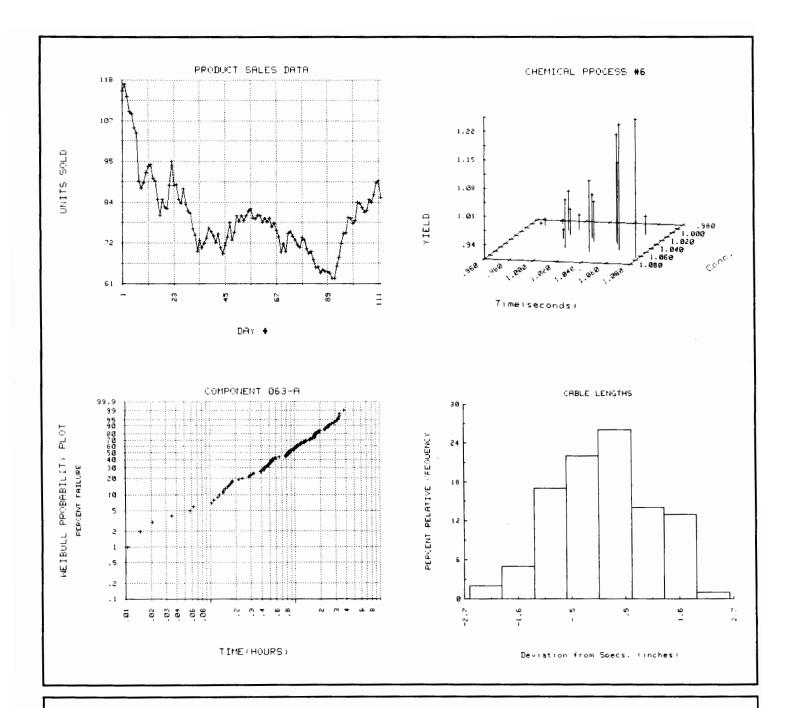
- Basic Statistics and Data Manipulation.
- Time plot.
- Normal probability plot.
- Weibull probability plot.
- X-Y scatter plot.
- Semi-log plot.
- Log-log plot.
- X-Y-Z plot.
- Andrews plot (graphical representation of four or more variables).

Grid lines may be plotted. A choice of plotting symbols, graph titles, and scaling parameters is offered. Plots may be performed on the CRT (9845 only) and/or the 9872 plotter.

The software package has the following limitations:

- 50 variables maximum on 9845B/C.
- 20 subfiles maximum on 9845B/C.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.

The following sample output gives examples of the routines included in the software package:



#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 700 or 9845C

Price: \$500

HP Software Part Number: **Memory Options:** 

09845-15200

**ROMs:** 98411A (45B only)

Peripherals:

9872/7245; 98034A

Comments:

Contact your local HP Sales Office for additional information



Application Code:

42.22005

Mainframe(s) 9845B/C

Program Title

#### **GENERAL STATISTICS**

#### **Program Description**

General Statistics contains a broad range of elementary tests of hypotheses for single-sample, paired-sample, two-independent-sample, and multiple-sample data. A set of routines relating to statistical distributions serves to determine the significance of the tests. General Statistics includes routines from Basic Statistics and Data Manipulation (BSDM) (Application Code 22.5501).

Data input, manipulation, and summary statistics are performed via the BSDM routines. The General Statistics package contains the following routines in addition to the BSDM routines:

- One-sample tests:
  - Serial correlation and serial (time) plot.
  - Ranks.
  - Histogram plot.
  - t test.
  - Kolmogorov-Smirnov goodness-of-fit.
  - Chi-squared goodness-of-fit.
  - Shapiro-Wilk.
  - Runs test.
- Paired-sample tests:
  - Paired t.
  - Cross correlation.
  - Family regression.
  - Sign test.
  - Wilcoxon signed rank.
  - Higher power signed ranks.
  - Spearman's Rho.
  - Kendall's Tau.
- Two-independent-sample tests:
  - Two-sample t test.
  - Median test.
  - Mann-Whitney.
  - Taha squared rank.
  - Cramer-von Mises.
  - Kolmogorov-Smirnov.
- Multiple-sample tests:
  - One-way analysis of variance.
  - Multiple comparison procedures.
  - Kruskal-Wallis.
- 17 Different Statistical Functions and Distributions.

The software package has the following limitations:

- 50 variables maximum on 9845B/C.
- 20 subfiles maximum on 9845B/C.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.

The following sample output gives examples of the routines included in the software package:



```
DATA MANIPULATION
Gasoline Text
Data file name: MPG:T
Number of observations: 8
Number of variables: 2
Variables names:
1. Brand R
2. Brand B
Subfiles: NONE
                                  Gasoline Test
     Variable # 1 Variable # 2
                     31.00000
         28.00000
        26.00000
                      26.00000
        23.00000
                      25.00000
        25.00000
                      27.00000
        27.60000
        25.00000
                       28.00000
                        26.00000
         24.00000
                       26.00000
PAIRED SAMPLE TESTS
VARIABLE FOR X -- Brand A
VARIABLE FOR Y -- Brand B
PAIRED-L TEST
    -2.510
7
.958, 7 1 = 1.895
T VALUE ¥
DF ≠
        MILCOXON SIGNED RANK
    N= 7
SUM OF POSITIVE RANKS = 3
    (USING RANKS OF X(1)-Y(1) AND EXCLUDING THE POINTS WHERE X(1) *Y(1))
    YIELDS APPROXIMATE STANDARD NORMAL DEVIATES
       1) HITHOUT CORRECTION FOR CONTINUITY :
         A) NOT COMPENSATING FOR TIED DIFFERENCES :-1.8593
          B) CONDITIONAL ON THE EXISTING TIED DIFFERENCES :-1.9302
        2) HITH CORRECTION FOR CONTINUITY :
          A) HOT COMPENSATING FOR TIED DIFFERENCES :-1,9439
          B) CONDITIONAL ON THE EXISTING TIED DIFFERENCES :-2.871:
```

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 700\* or 9845C

**Price:** \$500

HP Software Part Number: 09845-15130

**Memory Options:** 

ROMs: 98411A\*

Peripherals:

\* Graphics capabilities are required for plotting histograms, time plots and multiple comparison plots.

Contact your local HP Sales Office for additional information

Comments:



Application Code:			
	42.22006		

Mainframe(s) 9845B/C

Program Title

#### **NONLINEAR REGRESSION**

#### **Program Description**

The Nonlinear Regression package is capable of estimating the parameters in a complex, nonlinear model. While the Regression Analysis Methods package (Application Code 22.5502) is easier to use for general curve-fitting, nonlinear regression is preferred, and many times necessary, for certain types of regression models.

Data input, manipulation, and summary statistics are performed via routines from the Basic Statistics and Data Manipulation (BSDM) package (Application Code 22.5501). The functional form of the model and the partial derivatives of the model with respect to each of the parameters must be entered from the keyboard.

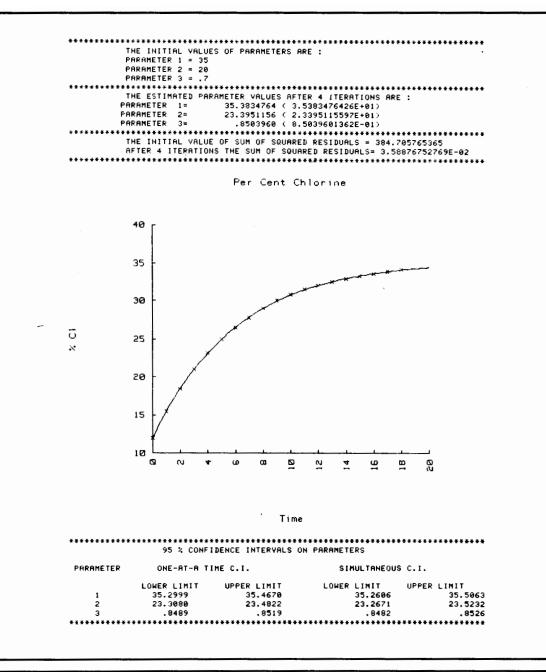
The Nonlinear Regression package contains the following routines in addition to the BSDM routines:

- Nonlinear regression via Marquardt'salgorithm.
- Confidence intervals on the parameters.
- Scatter plot.
- Plot of regression line for models with one independent variable.
- Residual tables and/or plots.

The software package has the following limitations:

- 50 variables maximum on 9845B/C.
- 20 subfiles maximum on 9845B/C.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.
- A model with up to 10 parameters may be specified.

The following sample output is from the regression model  $Y = a - bc^x$ :



#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 700\*, or 9845C

**Price:** \$500

HP Software Part Number: 09845-15140

**Memory Options:** 

**ROMs:** 98411A\* (45B only)

Peripherals:

\* Graphics capabilities are required to obtain scatter plots, residual plots, and a plot of the regression (if the regression is performed in two dimensions).

Contact your local HP Sales Office for additional information



## **HEWLETT-PACKARD SOFTWARE SUMMARY**

Application Code:

42.22007

Mainframe(s) 9845B/C

Program Title

#### MONTE CARLO SIMULATION UTILITIES

#### Program Description

This set of utilities may be used as a tool by researchers who are serious about performing high-quality statistical simulation. The routines are set up as independent, modular subroutines to be combined with the user's own programs. The software package also provides general-purpose drivers for each subroutine which serve to show how the subroutines operate.

The parameters required by the subroutines for data input include such things as the number of random numbers desired and the parameters of the statistical distribution which is being used in the simulation. The parameters may be passed to the subroutines from the calling statement in the user's program. Alternatively, they may be input as answers to prompts in the subroutine drivers. This package DOES NOT include routines from Basic Statistics and Data Manipulation (Application Code 22.5501).

The package contains the following routines:

Binary commands

- IRND X provides uniform pseudo-random numbers which are much superior to the RND. statement provided by the computer operating system. IRND uses a linear conquential model where the I+1st random number,  $R_{l+1}$ , is produced via  $R_{l+1}=(A+C*R_l)MOD\ 10^{12}$ . • SEED X — resets the initial seed for IRND.
- ACOEF X resets the value of A in the linear congruential formula used by IRND.
- CCOEF X resets the value of C in the linear congruential formula used by IRND.
- Random-number generators for the following distributions:

Beta Dependent normal Binomial Pareto of the first kind Chi-square Pareto of the second kind

Exponential Poisson

Random points on an Gamma M-dimensional sphere

Gamma (alpha) Super uniform

Geometric

Lognormal Type 1 extreme value Negative binomial Type 2 extreme value

Standard normal Weibull

Normal

Tests of randomness:

Chi-square test Kolmogorov-Smirnov test Maximum of T test Modified poker test Runs test Serial test Spectral test

Sampling utilities:

Simple random sample without replacement Card shuffling routine.

	ORDERING/HARDWARE INFORMATION
Mainframe(s): Price:	9845B/C
Price: HP Software Part Number: Memory Options:	09845-15160
ROMs:	
Peripherals:	
Comments:	Contact your local HP Sales Office for additional information



Application Code:

42,22008

Mainframe(s) 9845B/C

Program Title

#### **ANALYSIS OF VARIANCE**

#### **Program Description**

This software package is a collection of routines to perform analyses on data from statistically planned investigations. Several interpretive aids are included. Also included are routines from Basic Statistics and Data Manipulation (Application Code 22.5501).

Input, data manipulation routines, and summary statistics are performed via Basic Statistics and Data Manipulation. Several options are provided which allow data to be input in different formats. Analyses for the following designs are available:

- Factorial up to four factors may be combined in a balanced experiment. There may be multiple observations per treatment combination, and the entire experiment may be replicated in blocks.
- Nested up to four factors (five if samples are included) can be combined in a nested or partially nested, completely balanced design.
- Split Plot up to three factors may be combined in either a split plot or split-split plot design.
   At least two blocks are required, and multiple observations may be included.
- One Factor a one-way AOV is performed for an experiment with equal or unequal numbers of observations per treatment.
- Two Factor Unbalanced an analysis may be performed on a two-factor design with unequal numbers of observations per treatment combination.
- One Factor with Covariate a one-way analysis of covariance is performed for equal or unequal numbers of observations per treatment.

In addition, the following features are available:

- New Response this feature allows you to change response (and covariate if applicable) and perform an identical analysis on the new response.
- FPROB a routine which gives the significance level of computed F statistics.
- Orthogonal Polynomials a routine to generate orthogonal polynomials. These help evaluate the effects of quantitative factors whose treatment levels are either equally or unequally spaced.
- Treatment Contrasts given contrast coefficients, this routine computes the contrast, sum of squares, and F value associated with the contrast, as well as significance of the F statistic.
- Interaction Plots a graphical display of two-way or three-way interactions may be obtained on the CRT (9845 only) or a hard-copy plotter.
- Multiple Comparisons five multiple comparison plots are available, namely, Least Significant Differences, Honestly Significant Differences, Scheffe's, Student-Newman-Keuls, and Duncan's Test.

Sample output from Analysis of Variance software package.

```
HOLE-CUTTING PERFORMANCE
DESIGN
    Number of factors = 2
     No. of levels of factor A = 2
No. of levels of factor B = 3
     No. of major replications (blocks) = 1
No. of minor replications (samples) = 3
Subfiles will be ignored
Response variable(s) are :
Variable no. 1 REP 1
Variable no. 2 REP 2
Variable no. 3 REP 3
MEANS
* Overall mean =
                              .968333
* Main Effect Means :
Factor A - PRESSURE Levels (1 - 2);
.923333 1.013333
Factor B - BIT SPEED Levels (1 - 3);
           .940000
                                                     .980000
                                .985000
* Two Way Interaction Means :
Factor A - PRESSURE down and Factor B - BIT SPEED across
                         .900000 2
                                              2 3
                                                                   .920000
                                            1.020000
                         .980000
                                                                 1.040000
ANOVA TABLE
                       Factorial Analysis of Variance
Source (Name) df Sums of Squares
                                                            Mean Square F Ratio F-Prob
Total 17 .097050 .005709

A PRESSURE 1 .036450 .036450

B BIT SPEED 2 .007300 .003650

AB 2 .002100 .001050

Sampling Error 12 .051200 .004267

NOTE: F tests assume that all factors are fixed
                                                                 .036450 8.543 .0128
.003650 .855 .4495
.001050 .246 .7857
```

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 700\* or 9845C

Price: \$500

HP Software Part Number: 09845-15170

**Memory Options:** 

**ROMs:** 98411A\* (45B only)

Peripherals:

Comments:

\* Graphics capabilities are necessary for interaction plots and for multiple comparison plots.

Contact your local HP Sales Office for additional information



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

42,22009

Mainframe(s) 9845B/C

Program Title

#### PRINCIPAL COMPONENTS AND FACTOR ANALYSIS

#### **Program Description**

The routines contained in Principal Components and Factor Analysis provide the capability to perform sophisticated analyses on multivariate data. Included are the routines from the Basic Statistics and Data Manipulation package (BSDM) (Application Code 22.5501).

Data input, manipulation, and summary statistics are performed through slightly modified BSDM routines. The modifications allow data input to be in the form of raw data, a covariance matrix, a correlation matrix, or a factor matrix.

In addition to the BSDM routines, the Principal Components and Factor Analysis package contains the following routines:

- Factor extraction routines:
  - Principal axes method.
  - Maximum likelihood method.
- Factor rotation routines:
  - Orthogonal varimax.
  - Orthogonal quartimax.
  - Oblique oblimin.
- Case score computation and plot.
- Principal component plots.
- Factor plots.

The software package has the following limitations:

- 50 variables maximum.
- 20 subfiles maximum.
- 1500 data values maximum (for example, 2 variables and 750 observations, or 3 variables and 500 observations).
- Instructions are included to expand the data capacity if memory permits.

The following sample output gives examples of the routines included in the software package:

#### COMPONENT MATRIX

			COMPONEN	<u> </u>		
Variable Name	1	2	3	4	5	6
<ol> <li>SKULL LGTH .</li> </ol>	.347463	536959	.766673	.049099	027212	.002378
2. SKULL BOTH	.326404	696453	6363 <b>05</b>	.002033	008031	.058829
3. HUMERUS	.443411	.187321	040071	524079	168550	680900
4. ULNA	.439972	.251402	.011196	~.488769	.151309	.693763
5. FEMUR	.434532	.278188	059205	.514259	669453	.132887
6. TIBIA	.440140	.225718	045735	.468582	.706912	184237
Eigenvalue	4.567571	.714123	.412129	.173189	.075859	.057129
% of total						
variance	76.12618	11.90205	6.86882	2.88648	1.26431	.95216
Cumulative %						
variance	76.12618	88.02823	94.89705	97.78353	99.04784	100.00000
	******		********		***	

#### UNROTATED FACTOR MATRIX

	FACTOR			
Variable Name	1	2	3	
1. SKULL LGTH	.684976	365703	.003721	
2. SKULL BOTH	.636078	393993	027403	
3. HUMERUS	.951391	.081564	.162951	
4. ULNA	.945555	.150044	.165112	
5. FEMUR	.928596	.176294	154345	
6. TIBIA	.942826	.125079	162222	
Contribution				
of factor	4.42422	.36486	.10472	
% of total				
Variance	73.73696	6.03099	1.74530	
Extracted				

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt 150 or 250, 9845C Opt. 150 or 250

**Price:** \$500

HP Software Part Number: 09845-15080

**Memory Options:** 

ROMs:

Peripherals:

Comments:

Contact your local HP Sales Office for additional information

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application	Code:	
	42.22010	

Main	fram	e(s)
S	eries	200

Program Title

**Statistics Library** 

#### **Program Description**

#### 98820A

The Statistics Library is an economical set of routines for data exploration, analysis and graphical display. It features a unified data base and easy-to-use graphics. Contains enhanced versions of Basic Statistics and Data Manipulation, General Statistics, Statistical Graphics, Regression Analysis, Monte Carlo Simulation Utilities and Routines, Analysis of Variance, and Principal Components and Factor Analysis. A total of 10 discs including:

#### **Basic Statistics and Data Manipulation**

Provides comprehensive summary statistics as well as routines for entering, editing, naming, recoding, sorting, storing, transforming, and listing data for statistical analysis by other programs.

#### General Statistics

Contains parametric and non-parametric tests for single sample, paired sample, two independent sample and multiple sample data. Has statistical distributions which eliminates need for tables.

#### Statistical Graphics

Contains nine routines for plotting statistical data; time plot, histogram, probability plots, x-y scatter plot, semi-log plot, log-log plot, xyz plot, and Andrews plot.

#### Regression Analysis

Performs multiple linear regression, variable selection methods using stepwise, forward, backward or manual procedures, polynomial regression and residual analysis. Uses Marquardt's Method to fit non-linear models using up to ten parameters and allows residual analysis.

#### Monte Carlo Simulation

Includes advanced random number generators, random deviate generators for various statistical distributions, and a series of tests which aid in the evaluation of simulation studies.

Analysis of Variance

A collection of routines for the analysis of statistically designed experiments. Includes procedures for factorial (up to 4 factors), nested, split-plot, one-way, two-way unbalanced, and one-way covariate designs as well as routines for generating contrasts, orthogonal polynomials, multiple comparisons and interactive plots.

Principal Components and Factor Analysis

Routines for multivariate analysis including computation of principal components, factor extraction (principal axes or maximum likelihood method), factor rotations (orthogonal or oblique), and plots of case scores.

98820B Statistics Library Part I \$925

Designed as a basic library of general statistics, part I consists of Basic Statistics and Data Manipulation, General Statistics, Statistical Graphics, and Regression Analysis. A total of 5 discs.

98820C Statistics Library Part II \$750

Designed as an advanced statistical analysis library, part II consists of Monte Carlo Simulation Utilities and Routines, Analysis of Variance, and Principal Components and Factor Analysis, It is necessary to have part I for part II to run. Part II contains 5 discs.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9816A/9826A/9836A

**Price:** \$1500 \$925 \$750

HP Software Part Number: 98820A 98820B 98820C

Memory Options: 98256A Media Opts.: 630 3½", 650 5¼" external, 655 5¼" internal

Language/ROMs: BASIC 2.0

**Peripherals:** Printer (optional)

Part I'and Part II make up the equivalent of 98820A Statistics Library.

**Comments:** Will not run on the Shared Resource Manager

Contact your local HP Sales Office for additional information

## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code: 10066

Application Code:

42.31001

**Expiration Date:** 

Product Name: Data Evaluation Program for the HP85

DAEP85

Mainframe(s):

**HP85** 

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The program DAEP85 is a general purpose Data Evaluation Program written especially for the HP85. The program will both plot data and fit experimental data to a variety of mathematical functions by non-linear least-squares. The first section of the program provides for entry of data (80 points maximum) from either the keyboard or from tape. Once the data are entered, the data can be: printed, displayed, stored, averaged, baseline corrected, normalized, and/or edited. After the data has been manipulated to satisfy the user, then plotting and/or fitting of the data can be performed. The second section of the program involves using the mathematical technique of non-linear (multiparameter) least-squares to fit the data to any one of 10 equations (see the Table below and the examples on next page). The program prints out the best fit parameters as well as deviations and statistics of the fitting procedure (see sample output on right). The program can be modified to allow for user supplied functions. The final section of the program uses a complex scaling routine to produce graphs with even increments and in scientific notation when necessary. Theoretical curves, using best fit parameters, may be plotted on to the experimental data points. The program has the ability to accept additional

sets of data which can be manipulated, fit and/or plotted on top of the first and/or subsequent data sets. The program is supplied on tape with ten sample data files, one for each of the functions in the program.

#### TABLE

PUNCTIONS CURRENTLY AVAILABLE IN DAEP85

#### EQUATION FIT PARAMETERS LINE y=Mx+B y=Ax2+Bx+C POLY 2 A,B,C y=Ax3+Bx2+Cx+D A,B,C,D POLY3 HYPBLA v=Mx/(x+K) M.R y=A<sub>O</sub>exp(-kx)+B EXPB $y=A_1exp(-k_1x) + A_2exp(-k_2x)$ k<sub>1</sub>,A<sub>1</sub>,k<sub>2</sub>,A<sub>2</sub> ORD1P y=A<sub>f</sub>-(A<sub>f</sub>-A<sub>i</sub>)exp(-kx) $K, A_i, A_f$

k,A<sub>o</sub>

k,A<sub>o</sub>

k,A<sub>o</sub>

ORD1R y=A<sub>0</sub>exp(-kx)
ORD2P y=A<sub>0</sub>-1/(kx+(1/A<sub>0</sub>))
ORD2R y=1/(kx+(1/A<sub>0</sub>))

\* \* \* \* DAEP85 \* \* \* \*
FUNC=ORD1P

INITIAL PARAMETER VALUES

K = 3.000E-2 Ri= 2.000E-2 Rf= 8.000E-2

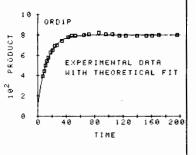
FINAL PARAMETER VALUES

K = 7.441E-2 Ai = 1.119E-2 Af = 8.016E-2

Y-08S Y-CALC %0EV 0390 .0380 -2.59

2	8449	. 0459	2.29
3	. 0500	. 0502	. 32
4	0540	.0542	39
5	.0580	0582	. 31
6	0630	.0622	
23456789	.0650	. 9657	1.04
ė	0690	.0683	
3	9700		-1.09
10		. 0706	. 85
	.0740	. 0745	. 68
11	.0780	. 0773	85
12	.0790	.0782	-1.03
13	.0790	.0788	25
14	.0800	. 0796	50
15	.0810	.0798	-1.46
16	.0820	0800	-2.45
17	9819	.0801	-1.13
18	.0810	0801	-1.09
19	.0790	.0801	1.42
20	0790	.0801	1.43
21	0790	.0802	1.44
22	8790	0802	1 44
23	9798	9892	1.44
24	.0800	.0802	
25			. 19
25	. 9899	. 0802	. 19

SD(P1)=5.5735E-004 SD(P2)=4.408E-004 COV(P1.P2)=-.4845E-005 SD(P3)=5.5688E-005 COV(P1.P3)=-.3291E-006 COV(P2.P3)=1.4932E-007 VAR=8.7038E-007



Retail Price:

\$195

Company Name:

R & L Software

Contacts: Evan R. Kantrowitz

Address:

1299 Beacon Street Newton, MA 02168

Telephone:

(617) 964-0992

SYSTEM REQUIRE	MENTS		
Computer Model: HP8	35	Periphe	rals:
Memory: 16K mem	ory module		
Operating System:			
Other Software:			
CUSTOMER SUPPO	PRT		
Geographic Area Sup	ported:		
	☐ Latin America (all)		
Support Services Ava	ilable:		
☑ phone-in support ☐ on-site consulting	⊠ mail-in s □ on-site s	upport systems engineers	<ul><li>☐ remote dial-in</li><li>☒ program modification</li></ul>
• •	formation and Pricing: cations are availabl	e at additional charge	•
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	Available at extra	cost	Price:
the program. Th	able: A 44 page User' ne User's Guide cont s in the program. able in other languages: n	s Guide is supplied wi ains ll examples, incl	th Price: uding one for each
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRST INSTA	ALLATION:
ADDITIONAL INFO  LIBE	RMATION Examples  POLT2	ABSCISSA  OBDIR  y=A <sub>0</sub> exp(-kx)	TIONS IN DAEP85  y=Re/(x=x)  y=Re/(x=x)  y=A_0xxp(-2x)+8  y=A_0xxp(-2x)+8  y=A_0xxp(-2x)+8  0 0 12 16  ABSCISSA  ABSCISSA  y=1/(kx+(1/A_0))  10 0 12 16  ABSCISSA  THE  THE
RESPONSIBILITIES S	TATEMENT	•	

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# HEWLETT-PACKARD SOFTWARE SUMMARY

**HP USE ONLY** 

I.D. Code:

Application Code: 42.32001

Expiration Date:



Product Name:

General Statistics Application Pac

Mainframe(s):

Series 80

Software Description:

The General Statistics Pac offers extensive flexibility in evaluating data:

One-Sample Analysis - Basic Statistics; Ranking; Histogram; t Test; Chi-Squared Goodness of Fit.

Paired Sample Analysis - Paired t Test; Polynomial Regression; Family Regression; Sign Test; Wilcoxon Signed Rank Test; Spearmans' Rho and Kendall's Tau.

<u>Test Statistics</u> - Chi-Square Test for Equal and Unequal Expected Values; R X C Contingency Table; Two Sample t Test; One- and Two-Way Analysis of Variance.

Statistical Distributions section is intended to eliminate the need for most statistical tables. The right-tail probability is available for Normal; F; Student's t; Weibull; and Chi-square continuous distributions and Binomial; Poisson; and Hypergeometric discrete distributions.

Multiple Linear Regression prints means and variances for all variables. Calculates a least squares regression on up to 12 independent variables and prints the multiple correlation coefficient. Prints correlation matrix, analysis of variance table, estimates of variances and  $\boldsymbol{t}$  values for the regression coefficients. Allows the user to compute estimates of the dependent variable based on the regression coefficients and independent variable values.

NOTE: HP-86/87 software offers increased data capacity (400 data points with 32K memory) larger display graphics, 80-column report layouts, and a keyboard option of display/plotter graphics.

Retail Price: \$95.00 Hewlett-Packard product number \_\_\_\_\_\_\_00085-13003

SYSTEM REC	QUIREMENTS
Mainframe:	HP-83/85/86/87
ROMs:	
Memory:	
Peripherals:	
ADDITIONAL	INFORMATION
	· ·

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#### **HP USE ONLY**

I.D. Code:

Application Code: 42.32002

**Expiration Date:** 

Prod	Product Name:		Mainframe(s):			
Bas	ic Statistics	and Data	Manipulation	Application Pac	Series 80	

#### Software Description:

The Basic Statistics and Data Manipulation routines are capable of handling a maximum of 12 variables and 500 data values. A maximum of ten subfiles can be specified.

<u>-Start</u>: This routine allows the user to enter data from a file or the keyboard and related information into memory. Data input even has a provision for missing values.

<u>-Edit</u>: The editing functions can be broken into three categories: changing data values, naming varialbes, and changing subfile specifications.

<u>-Transform</u>: Several algebraic transformations are supplied, in addition to a transformation that standardizes the data. The user can also define his own transformation. Missing value assignment allows the user to tell the program what value was used to denote missing data. The recording feature allows data to be categorized by assigning a code to a range of values of the original variable. The sort option allows the data to be arranged in ascending order, based on the values of a specified variable.

-List: The listing feature allows the user to obtain a copy of the data at any point in the analysis, either on the CRT or on a printer.

-Store: This option stores the data set and related information on any compatible mass storage device.

<u>-Statistics</u>: These routines calculate some simple statistics which help describe data. The following statistics are computed: Number of Observations; Mean and Median; Minimum and Maximum; Range and Midrange; Standard Deviation; Confidence Interval on the Mean; Coefficient of Variation; Correlation Matrix; Standard Error; 25th and 75th Percentile.

NOTE: HP 86/87 software offers increased data capacity, and 80-column report layouts. Up to 85 variables with 5700 observations using 160K memory.

Retail Price:	\$95.00	Hewlett-Packard product number	00085-13036	
	450.00	F. G		

SYSTEM REQ	UIREMENTS		
Mainframe:	HP-83/85/86/87		
ROMs:			
	ditional Mamany for UD 06/07 Ontions	1	
Memory: Add	ditional Memory for HP-86/87 Optiona		
Peripherals:			
ADDITIONAL	INFORMATION		
	No.		

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HP USE ONLY

I.D. Code:

Application Code: 42.32003

Expiration Date:

Product Name: Mainframe(s):

Regression Analysis Application Pac Series 80

#### Software Description:

Finding the relationship between a dependent variable and one or more independent variables is a statistical technique frequently used and available with the Regression Analysis Application Pac\*. After entering data using the Basic Statistics and Data Manipulation Pac (sold separately) models can be built using the regression analysis programs.

Polynomial Regression fits a polynomial of the form  $y=a_0+a_1x+a_2x^2+\ldots+a_1x^n$  to the user's data, using the least squares method to determine the coefficients. Program output includes: Mean, standard deviation, coefficient of variation of the dependent and independent variables; Correlation coefficient,  $r^2$ , standard error of estimate; Analysis of variance table with F ratios; Computer regression coefficients together with their associated standard errors and t values; and Confidence interval for each coefficient. A scatter plot of data and plots of any of the polynomials the user has chosen to examine can be obtained.

Multiple Linear Regression fits a model of the form  $y=a_0=a_1x_1=a_2x_2=...=a_mx_m$  to the user's data, using the least squares method.

Multiple Linear Regression with Four Variable-Selection Procedures allows the user to examine an analysis of variance table at each step of the routine and delete insignificant variables from those previously added. The program also provides forward, backward, and stepwise selection.

Residual Analysis will automatically determine the difference between actual Y-values and predicted Y-values. This program prints a table of residuals and may plot the standardized residuals either against the observation number or against any variable.

NOTE: HP 86/87 software offers larger display graphics, 80-column report layouts and keyboard option of display/plotter graphics up to 85 variables with 5700 observations using 160K memory.

\*The Regression Analysis Pac must be used in conjunction with the Basic Statistics and Data Manipulation Pac.

Retail Price: \$95.00 Hewlett-Packard product number 00085-13037

SYSTEM REQUIREMENTS
Mainframe: HP-83/85/86/87
ROMs:
Memory: Additional Memory for HP-86/87 Optional
Peripherals:
ADDITIONAL INFORMATION

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HP USE ONLY

I.D. Code:

Application Code: 42.32004

Expiration Date:

**Product Name:** 

Statistical Analysis Pac

Mainframe(s):

Series 80

#### **Software Description:**

The Statistical Analysis Pac is a "Multi Pac" software package containing the General Statistical Analysis Pac (00085-13003), the Regression Analysis Pac (00085-13037) and the Basic Statistics and Data Manipulation Pac (00085-13036). This "Multi Pac" offers the user powerful statistics software at a lower price than the user would pay for the three pacs individually.

Retail Price: \$225.00 Hewlett-Packard product number 00085-13058

SYSTEM RE	QUIREMENTS			-
Mainframe:	HP-83/85/86/87			
ROMs:				
Memory:				
Peripherals:				
ADDITIONA	AL INFORMATION			
	•			

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## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 43.11001

Expiration Date: 9/83

Product Name:

Mainframe(s):

LINDO Linear Programming System

HP1000 E & F-Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

<u>LINDO</u> - (Linear Interactive and Discrete Optimizer) is an interactive computer program for solving linear programming and related problems. It is a friendly system designed to be immediately useful to the novice and expert.

<u>Flexibility</u> - 40 commands for data input, editing, optimization, display, file handling, and sensitivity analysis give Lindo many extensions beyond the basic linear programming packages not available.

 $\overline{\text{Power}}$  - Up to 800 rows and 4000 variables can be handled on an HP1000 computer. After the user learns how to apply it to small problems, larger real world problems are straightforward extensions.

<u>Versatility</u> - Lindo solves not only linear programs but also integer programs and quadratic/linear complementary problems. Range and parametric analysis are also available.

<u>Planning Capability</u> - Lindo also solves PERT problems for large project scheduling and critical path analysis.

<u>Display Capabilities</u> - The user can display as much or as little as desired at the terminal. Summary information can be displayed at the terminal and more voluminous information diverted to a file. The current problem and solution can be viewed in equation form, tableau form, or PICTURE form. A specific row or column can be stepped through one pivot at a time with complete freedom to display or alter the problem between steps.

<u>Multifaceted</u> - LINDO has interfaces for user data files, user written FORTRAN subroutines for input generation and output analysis, and Benders decomposition for integer programming.

Retail Price:

\$3500 first copy

Company Name: Computer Applications Consulting, Inc Contacts: Robert R. Bollinger

Address: 1344 Freeport Road, Suite 3

Pittsburgh, PA 15238

Telephone: (412) 963-6422

SYSTEM REQUIREMENTS	
Computer Model: HP1000 Models 60, 65	Peripherals: Printer
Memory: 256KB	
Operating System: RTE-6/VM	
Other Software: FORTRAN 77	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide ☑ Canada ☐ Europe (all)   ☑ U.S. (all regions) ☐ Mexico ☐	
Support Services Available:	
<ul><li></li></ul>	☐ remote dial-in ☐ program modification
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Upon request	Price: Quote
Documentation Available: Users Manual	Price: Included
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 60 DATE OF FIRS	T INSTALLATION:
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	

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**HP USE ONLY** 

I.D. Code:

Application Code: 43.32001

**Expiration Date:** 

Computer Museum

Product Name:

Linear Programming Application Pac

Mainframe(s):

Series 80

**Software Description:** 

The Linear Programming Pac provides a simple and convenient means of optimizing linear programming models. It has been designed for use in many different industries because the format of the input and output has not been tailored or structured for any particular application.

The maximum problem size the LP Pac can handle depends on how much read/write memory (RAM) is available. Two versions of the program on the HP-83/85 computers are recorded on both tape cartridge and disc. The first requires 16K bytes of RAM; the second, 32K bytes.

The print section of the program allows the user to print the data on a printer. The printout can be used as a check on the data entered or as a hard-copy record of the problem. If errors have been made during problem entry, the modify routine provides a simple way to make corrections. It also allows the user to create essentially new problems by adding or deleting constraints from a previously created problem.

The solve routine performs the optimization using a modified simplex method, then prints the solution and, if desired, a sensitivity analysis. The tableau, which is used to provide a beginning solution in optimizing the problem, will show not only the variables which have been entered, but also the slack, surplus, and artificial variables. The system automatically computes these variables in order to convert the inequalities to equalities. After the optimization, the system will automatically print out the basis and solution variables, including the dual variables, and indicate both the value of the objective function and the number of iterations required.

Finally, the LP system will provide a sensitivity analysis to determine the range for variables to stay in or out of the basis. The system also provides the critical level of the constraint values.

NOTE: HP-86/87 software offers increased problem size, 80-column report layouts, and easier editing performance. Up to 200 variables with 80 constraints using 288K memory.

Mainframe: HP-83/85/86/87	
·	
ROMs:	
Memory: 82903A Memory Module Optional Additional Memory for HP-86/87 Optional	
Peripherals:	
ADDITIONAL INFORMATION	
· · · · · · · · · · · · · · · · · · ·	
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# 5 Utilities, Tools, Operating Systems

- 51 Utilities
- 52 Tools
- 53 Operating Systems
- 54 Diagnostics59 Other

## Software Supplier Product Summary

#### **HP USE ONLY**

I.D. Code:

Application Code: 51.11001

Expiration Date:

Product Name:

TERMINAL MANAGER

Mainframe(s):

HP1000 E, F, L, A Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Terminal Manager is a tool that lets the programmer concentrate his or her efforts on the application, rather than the system. Terminal Manager has been written by programmers for programmers. We understand that good programming tools provide capability, not restrictions, and that good applications are implemented by programmers who understand their application and have the tools to implement them.

Consider the following features:

- The most powerful forms management package available for HP block mode terminals. With features like vertical or horizontal forms design, automatic menu management, parsing definition that views the form like a sequentially or randomly accessed data set, edit types that include free form input fields, numeric range editing, fractional digit rounding, end-user function key definition and labels, etc.
- An accounts system that manages up to 32 separate applications, each consisting of up to 999 transactions that my in turn contain up to 32 forms each. The end-user requests transactions from a personalized menu that controls access to applications and transactions within applications.
- Terminal and/or copy report generation using terminal developed forms. With features like auto-paging, the only code required to implement inquiry transactions is to read the data base and supply records to Terminal Manager in their disc based image.
- Help file management capable of displaying a message at the bottom of the operator's screen or of providing on-line documentation.
- If permitted, the end-user can obtain a hard copy of a displayed form and/or abort a transaction without user programming.
- Inter-program and inter-transaction communication. It is even possible to interrupt a transaction for a

high priority request and then return to the point of interrupt with all screen data and local variables intact.

- User defined system global parameters.
- Terminal Manager supplied outspooling that can manage the printer forms required for out-spooled files.
- Totally non-restrictive programming even to the point of doing your own I/O with the terminal or loading GRAPHICS/1000 with your application routine.
- Access to all the internal routines supplied with Terminal Manager. In this way, routines for bit, byte and array manipulation, octal dumps, program scheduling, terminal control, allocating and deallocating system resources, sorting, data conversion, manipulating time and dates, justifying data, etc., are all available the day Terminal Manager is installed instead of being generated on an asneeded basis.
- For IMAGE user's, extensions of the data base access methods supplied with IMAGE that eliminate programming related to multi-user data base accesses and provide a programmer debug trace
- Transaction logging and recovery.
- Remote monitoring of transaction execution.
- Virtually no end-user training is required. Terminal Manager inherently provides standardization of what the operator will see and what he or she must do.

The design philosophy of Terminal Manager is to supply a programming tool so complete in its offering that its users can easily generate and maintain the applications they desire with a minimum of programming effort and without the need to use packaged applications that may or may not do what the user had in mind.

Retail Price:

\$3,000.00 as of 2/1/82

Company Name:

INDUSTRIAL COMPUTER CORPORATION

Contacts:

Address:

6810 Roswell Road, Suite 1-D

Atlanta, GA 30328

Telephone:

(404) 396-9395

Michael E. Wells Frank B. Wingate William E. Massaker

SYSTEM REQUIREMENTS		
Computer Model: HP1000 E, F,	L or A Series	Peripherals: Terminal Manager supports 264X, 2382 and 262X
Memory:		block mode terminals. Support-
Operating System: RTE-IVB, 6VM,	XL, or A.1	ed interfaces include 12966A, 12792A, 12005A and 12040A
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
Worldwide		
Support Services Available:		
□ phone-in support     □ on-site consulting	∢ mail-in support ₹ on-site systems engineers	□ remote dial-in     □ program modification
Additional Support Information and Pr	icing:	
CUSTOMER TRAINING/DOCUMEN	TATION	
Training Available: System & Pr	ogrammer Level	Price: \$750.00 for 3 days for 2 students
Documentation Available: Programm Manager	er Reference & System Manuals Included	Price:
Documentation Available in other lang	juages:	
NUMBER OF INSTALLATIONS:	20 DATE OF FIRS	ST INSTALLATION: 1/1/81
ADDITIONAL INFORMATION		
and the application end-user. The tools av	ailable to the programmer begin with	a super QUERY. It interfaces with the programmer of the design of the application and end with the operator touches the terminal and ends when the
Programmers using erminal Manager in typica number of application software code lines w		tions can anticipate up to 75% reduction in the
Available Fall '82 - Terminal Manager suppo	rt for 307X Data Capture Terminals.	
RESPONSIBILITIES STATEMENT		

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## **Software Supplier Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 51.11002

**Expiration Date:** 

Product Name:

DOTPLOT/1000

(a dot matrix graphics library for HP 1000 computers)

Mainframe(s):

HP 1000 family

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product

information, user-specific details, major features and benefits, etc.)
DOTPLOT/1000 is a full feature plotting library which produces high-resolution graphics on low-cost dot matrix printers without the need for graphics terminals. A variable size dot matrix array is the plotting destination. This array is located in VMA or EMA depending on the availablity of memory or disc space. Hardcopy plots are produced by formatting the binary array data out to a dot matrix printer. The size of the plot is user-selectable, and limited only by the available computer resource. For example, the software is limited by the 12.6 Mbyte VMA space on the HP 1000 to a plot size of 36 square feet on a printer with 144 dots/inch! Use of the modules provided are similar to other HP graphics modules is shown below:

GINIT

-establish plot limits (Xdots, Ydots)

VIEWPORT

-establish plotting area within dot limits

GCLEAR

-clears the viewport

WINDOW

-establishes user units within the viewport limits

FRAME -draws frame around viewport

DRAW MOVE -draws line segment from current to new pen position

-moves the pen with penup

IDRAW

-draws line segment using incremental position data

IMOVE LABEL -moves incrementally with penup

LDIR

-draws characters for labeling -set label direction

CSIZE

-select character size

CFONT

-select character font

AXES

-draws co-ordinate axes

GRID

-draws grid

LINE TYPE FILL

-defines line type -defines fill area

FILL PATTERN

-defines fill type

DUMP GRAPHICS -formats data to printer

In addition a merge utility, MERGG, allows graphics data files to be merged with standard ASCII character files for generation of sophisticated reports. Currently supported printers include HP 7310, 82905B, and 2671/3 as well as Epson MX-80/100 and Printronix 150/300. Users can easily develop other dump and merge utilities from detailed documentation in the manual, or contact the supplier for quotation on the development.

Retail Price: \$2000 with English-language Instruction Manual

(\$100 for Instruction Manual only.)

Company Name: AUTOMATED TECHNOLOGY ASSOCIATES

Contacts: TOM PEARSON

Address:

P.O. BOX 19737

INDIANAPOLIS, INDIANA 46219

Telephone:

(317) 842-9488

SYSTEM REQUIREMENTS	
Computer Model: HP 1000 FAMILY	Peripherals: Any supported dot matrix graphics
Memory:	device
Operating System: RTE-IV, -VI- or -A	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
<ul><li></li></ul>	th Africa
Support Services Available:	
□ phone-in support	☐ remote dial-in gineers*
Additional Support Information and Pricing: *On-site support and program modifications p Contact ATA for quote.  CUSTOMER TRAINING/DOCUMENTATION	rovided on a Time and Materials basis.
Training Available:	Price:
Documentation Available: English Language Instruction Manual Documentation Available in other languages:	Price: Included with software (\$100 Manual only)
NUMBER OF INSTALLATIONS: DAT	E OF FIRST INSTALLATION:
ADDITIONAL INFORMATION  ATA provides HP+ Software Products, Consultirange of Computer-Aided-Test (CAT) and Graph developers and consultants are engineers, so with years of practical experience in the deeffective CAT solutions to the quality and productive manufacturing industry. This insures a full and effective, systems solutions for your autoftware maintenance and update services are Contact supplier for details.	ics applications. ATA software ientists, and senior technicians sign and implementation of cost roductivity problems of the understanding of your requirements tomation needs.
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## **Software Supplier Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 51.11003

**Expiration Date:** 

Product Name:

ATAPLOT/1000

(An autoplot utility for HP 1000 computers)

Mainframe(s):

HP 1000 Family

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

ATAPLOT/1000 is a friendly, general purpose, "autoplot" package for use with the HP 1000 family of computers. When used with the HP GRAPHICS/1000-II Software and its supported peripherals, sophisticated data plots can be produced without the need for complex graphics programming. Setup operations similar to those on the HP 264BA Graphics Terminal can be performed on any terminal with several important enhancements. Output can then be sent to any device supported by GRAPHICS/1000-II.

ATAPLOT/1000 has two modes of operation. In the INTERACTIVE mode, the computer prompts the operator with simple requests for information about the data to be plotted. For example:

"ENTER X MIN, X MAX, Y MIN, Y MAX:"

requests the range of the data to be plotted. Error tests are performed on-line to check the correctness of the information as it is entered (X MIN < X MAX. etc.) so that corrections may be made immediately as required. Finally, ATAPLOT/1000 prompts for a file name for the setup information so that it can be stored for subsequent re-use.

In the AUTOMATIC mode, the operator schedules ATAPLOT/1000, and passes the name of the previously established setup file, as well as the name of the file containing the data to be plotted. ATAPLOT/1000 may also be scheduled from the user's program so that the data collection routines can produce graphics without graphics programming.

Retail Price:

\$500 with English-language Instruction Manual

(\$50 for Instruction Manual only.)

Company Name: AUTOMATED TECHNOLOGY ASSOCIATES

Contacts: TOM PEARSON

Address:

P.O. Box 19737

INDIANAPOLIS, INDIANA 46219

Telephone:

(317) 842-9488

SYSTEM REQUIRE	MENTS			
Computer Model: H	2 1000 FAMILY		Peripherals:	Any GRAPHICS/1000-II supported devices.
Memory:				
Operating System:	RTE-IV, -VI, -L, or -A			
Other Software: HP	GRAPHICS/1000-II			
CUSTOMER SUPP	ORT			
	<ul><li>□ Canada</li><li>□ Mexico</li><li>□ Latin America (all)</li></ul>	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Far East (all)
Support Services Av				
Diphone-in support on-site consulting	X mail-in sup g*	port tems engineers*		remote dial-in program modification*
Additional Support I	nformation and Pricing: and program modificat			
CUSTOMER TRAIN	NING/DOCUMENTATION			
Training Available:			Pr	ice:
	lable: English Language Instruction Manua lable in other languages: No	1	Pr	ice: Included with software (\$50 Manual only)
NUMBER OF INST	ALLATIONS:	DATE OF FIRS	T INSTALLAT	
range of Comput developers and with years of p effective CAT s manufacturing i and effective,	+ Software Products, Car-Aided-Test (CAT) and consultants are engine ractical experience in olutions to the quality ndustry. This insures systems solutions for mance and update services for details.	d Graphics applers, scientists the design and y and productive a full understayour automation	lications. s, and seni d implement vity proble anding of y n needs.	ATA software for technicians cation of cost ems of the your requirements
This software was d	developed by an independent softwork and support services. HP is sentation or warranty, express or in	not the manufacturer	or co-developer	of this software and makes no

## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application, Code: 51.21001

**Expiration Date:** 

PRODUCT NAME

## OEMSEC

MAINFRAME(S)

9835A and 9845B/C

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

### **PROGRAM SECURITY**

#### SOFTWARE DEVELOPERS CAN NOW PROTECT VALUABLE PROPRIETARY SOFTWARE.

OEMSEC 'enciphers' the STORED version of a program and irreversibly alters its structure. Once so altered, the program will RUN normally but cannot be edited or modified in a way that accesses any of the existing program symbols (variables, labels, defined functions or subprograms).

Any attempt to list the program will produce meaningless garbage because the names of all variables, labels, defined functions, and subprograms will not be present. OEMSEC insures that trade secrets and techniques embodied in your software remain secure from unauthorized users. It is not possible to interrogate program variables or perform a meaningful TRACE operation.

The 'encipherment' process does not interfere with normal program operation, reduce execution speed, or require more memory.

OEMSEC is supplied on a tape cartridge and is currently available in two versions:

OEMSEC 35A runs on the 9835A OEMSEC 45B runs on the 9845B

Either version will process program tapes prepared on any of the following computers: 9835A, 9845A, or 9845B.

The following programs are supplied:

CIPHER -

(PROGRAM ENCIPHERMENT) -- CIPHER processes programs which have been STORED on a tape cartridge. The 'ciphered' program will load and run normally with no reduction in execution speed. The documentation value of symbol names is completely destroyed which prevents the observer from gaining any meaningful understanding of the algorithms embodied in the software. The TRACE features of the hardware are essentially rendered useless because no variable names are available. CIPHER operates on a single specified program.

CYSEC -

(CIPHER and SECURE) -- Process same as CIPHER with the addition of the H.P. SECURE feature. If a listing is attempted, the line number is followed by an asterisk (\*). This adds a small measure of additional security. However, if the SECURE feature is defeated, the program is still protected by the CIPHER process. CYSEC operates on a **single** program.

continued on reverse side

RETAIL PRICE:

\$2,000.00

COMPANY NAME:

CONTACTS:

Frank Key

ADDRESS:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

TELEPHONE:

609-267-1616

Computer Model:	9845B/C	Peripherals:	·-
lemory:			
perating System:			
ther Software:			
SUSTOMER SUP	PORT		
Geographic Area Su	pported:		
<ul><li>Worldwide</li><li>U.S. (all regions)</li><li>□ East</li><li>□ South</li><li>□ Midwest</li><li>□ West</li></ul>	☐ Latin An	nerica (all)	
	•	□ South Africa	☐ Australia/N.Z.
Support Services Av		-	
phone-in suppor		■ mail-in support □ on-site systems engineers	□ remote dial-in ■ program modification
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Additional Support In CUSTOMER TRAINING Available Documentation Available NUMBER OF INSTANDITIONAL INFOCUPOUS CYDU	INING/DOCU  Not App  Hable: Use  Hable in other  TALLATIONS  DRMATION  P - (i)  ii  ii  con  RE - (i)  AD - (i)	MENTATION  licable  r Operating Instructions  languages  S: 15 DATE OF FIRST I  Programs supplied: (contined of the CIPHER/SECURE and DUPLICATE) And SECURE) while duplicating a tape. The interpretation of the tape drive 'T14'. A CIPHERED and SECURE of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape. DATA files are copied unchanged of the tape.	Price:  Price:  NSTALLATION: September, 197  ued)  Applies the Cysec process (CIPHER e master version of the tape is placed CURED version of the master will be YDUP processes the entire contents anged.  ing feature on a STORED program. or hardcopy printer the symbol table

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.

## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 51.21002

**Expiration Date:** 

PRODUCT NAME

NODUP PROGRAM SECURITY SYSTEM MAINFRAME(S)

9835A and 9845B/C

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

## PREVENT DUPLICATION OF PROGRAM TAPES

Software for Hewlett Packard desktop computers can now be protected against duplication by 'NODUP'. With NODUP NO DUPLICATION is possible. Valuable proprietary software cannot be copied and disseminated by unauthorized users.

NODUP protects programs STORED on tape cartridges and continues to provide protection if the programs are loaded onto either floppy disc or hard disc for production use.

A program processed to prevent duplication by NODUP will load and run normally when loaded from the original tape cartridge or can be loaded from disc as long as the original tape is in the tape drive. When loading from disc, no access to the tape is made, so tape wear is negligible.

NODUP prevents tape duplication by the three most common methods in use on desktop computers. The following methods will not produce a working copy:

- a) Use of the **COPY** statement resident in the computer.
- b) Reading PHYSICAL records from the original and writing PHYSICAL records to a copy.
- c) **LOADING** from the original and **STORING** on a copy.

Software copied from an original tape will not run. Upon loading a copied program, the keyboard locks and the computer 'goes out to lunch'. The only possible recovery is to press **RESET** which invokes the 'power on' memory test and clears the memory.

The NODUP software initializes the tape cartridge with special 'security codes' that are recognized by a binary program which is appended to each application program that is to be protected. The 'security codes' are uniquely assigned to each user of NODUP, so not even another user of NODUP can duplicate the protected programs. Programs resident on the tape without the NODUP binary will operate normally but will not be protected against duplication.

To run a program protected by NODUP in a disc environment, simply copy the tape to a disc media . The original tape need only be present in the tape drive before initial program loading. No access to the tape is required for subsequent program loading.

RETAIL PRICE:

\$2,500.00

COMPANY NAME:

CONTACTS:

Frank Key

ADDRESS:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

TELEPHONE:

609-267-1616

SYSTEM REQUIREM	ENTS		
omputer Model: Peripherals:			: <b></b>
Memory:			•
Operating System: -	. <b>-</b>		
Other Software:	-		
CUSTOMER SUPPOR	श		
Geographic Area Suppor	rted:		
■ Worldwide ■ U.S. (all regions)	Canada		☐ Far East (all)
	□ Latin America (all)		
<ul><li>☐ South</li><li>☐ Midwest</li></ul>			
□ West			
		── □ South Africa	☐ Australia/N.Z.
Support Services Availat			_
<ul><li>phone-in support</li><li>on-site consulting</li></ul>	<b>⊠</b> mail-in □ on-site	support systems engineers	□ remote dial-in  □ program modification
Additional Support Inform	mation and Pricing:		
Additional Support Inton	mation and Fricing.		
Training Available: N	ot Applicable		Price:
Documentation Available	User Operating	Instructions	Price:
Documentation Available	in other languages:		
NUMBER OF INSTAL	LATIONS: 14	DATE OF FIRST I	NSTALLATION: February, 1980
ADDITIONAL INFORM	MATION		
To achiev the OEMSEC pro	ve the ultimate program ogram security system.	protection, it is recommend	ed that programs be enciphered using
	s supplied on a tape cart	ridge and is currently availa	ble for use on the 9845B/C and 9835A.
NODUP i			
NODUP i <b>PRICE:</b>	\$2,500.00		
	SE: NODUP and	OEMSEC purchased toget over buying each separate	
PRICE:	NODUP and (Saving \$500		
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PRICE: PACKAG  DELIVER  RESPONSIBILITIES STA	NODUP and (Saving \$500 RY: Stock	over buying each separate	

## Software Supplier Product Summary



#### **HP USE ONLY**

I.D. Code:

Application Code: 51.21003

**Expiration Date:** 

Product Name:

## MEMORY MAPPER BINARY PROGRAM

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### SOFTWARE TOOL MAKES BASIC PROGRAMS EXECUTE FASTER AND USE LESS MEMORY

The MAPPER binary program is a software development tool which helps programmers write Basic programs for maximum execution speed and efficient memory utilization. The MAPPER program resides in memory along with a Basic program and prints a memory map indicating where the Basic program segments and variables are stored in memory.

The MAPPER binary has five keywords which may be executed as keyboard commands the same as Basic commands such as EDIT LINE and LIST.

The MAPPER commands are:

MAP SEG Maps the program segments.

MAP VAR Maps variables.

MAP • Maps just arrays (numeric and string).

MAP ALL Maps all variables and lists the names of functions, labels, and subprograms

referenced in each program segment.

KILLBIN Removes the MAPPER binary without disturbing the Basic program.

All MAP keywords may be followed by optional segment specifiers to specify the starting and ending segments to be mapped. The MAPPER reports are printed on the system printer specified using the PRINTER IS statement.

When the value area allocated to store an array crosses a memory block boundary, an additional line is printed for each block containing the array.

The MAPPER helps reduce memory needed to store a basic program. The following information will help to explain how MAPPER can be used to reduce the memory required to store a Basic program.

- 1. Program segments can not cross memory block boundaries. (A program segment is either the main program or a subprogram following it, if any.)
- 2. Program segments are loaded into memory in the order in which they appear in the Basic source code program.
- 3. In large programs the program segments fill many memory blocks.
- 4. As the program is being loaded and the blocks are filling up, when the end of a block is near, the next segment to load may be larger than the space that exists at the end of the current block, in which case, the program segment is placed in the next memory block.

Retail Price:

\$250.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

609-267-1616

SYSTEM REQUIRE	MENT	S		N. 15		-
Computer Model:	9845	B/C			Peripherals:	
Memory:			مرد .			
Operating System:						
Other Software:						
CUSTOMER SUPPO	ORT					
Geographic Area Su	porte	d:				
<ul> <li>□ Worldwide</li> <li>☒ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	□ <b>La</b> □	exico tin Ame	erica (ali)			
Support Services Ava	ailable:					
				pport stems engineers	□ remote dial-in ⊠ program modificatio	n
Additional Support I	nforma	tion an	d Pricing:			
CUSTOMER TRAIN	IING/E	OCUM	ENTATION			
Training Available:	Not	App1i	cable		Price:	
Documentation Avail	able:	User	Operating	Instructions	Price:	
Documentation Avai	able ir	other	anguages:			
NUMBER OF INST	ALLAT	IONS:	30	DATE OF FIRS	TINSTALLATION: September,	1980
ADDITIONAL INFO	RMA	TION			1	
allows the smalle	er segn	ents to	be arranged to	fit in the 'wasted' sp	am segments were stored. The MAI baces, thus reducing the total amourove the execution speed.	
МАРРЕ	R is sı	pplied	on a tape cart	ridge.		
DELIVE	RY:	Stock				
DECONCIBILITIES (	TATEL	FNT				

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21004

Expiration Date:

Product Name:

Mainframe(s):

### SYMBOL FINDER BINARY PROGRAM

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### PROVIDES GLOBAL SEARCH FOR IDENTIFIERS AND LITERAL STRINGS

The FIND binary program adds a valuable new capability by providing a keyboard command to search for program resident identifiers and literal strings on a program-global basis. The FIND program resides in memory along with the BASIC program under development. FIND searches the BASIC program text for all occurrences of a specified identifier or literal string. Identifiers may be variables, labels, functions, subprograms or assembler symbols. Line numbers are listed for the defining line and all lines referencing the search target; optionally, the lines themselves may be printed.

When searching for symbol table resident identifiers, such as variables, labels, and functions, the syntax for FIND command is:

FIND \(\rightarrow\) mnemonic \(\rightarrow\) [,\(\rightarrow\) mnemonic \(\rightarrow\) [,\(\rightarrow\) normalized in the content of the c

(mnemonic) determines the identifier type, such as a label, variable, subprogram, function or assembler symbol.

(environment) is MAIN or SUBS to restrict the search to only the main program or only the subprogram segments.

STRING SEARCHES — Using the literal string search capability, any program text appearing to the right of the line number may be selected as the search target. This feature is useful for locating items of interest in the program text, such as the following:

- BASIC keywords, i.e. ASSIGN, PRINT, etc.
- Arrays with specific subscript values.
- Quote fields which are part of INPUT prompts, PRINT statements, or comments.
- Embedded control codes.

The FIND binary program is supplied on a tape cartridge and is available for use on the 9845B/C computers.

Retail Price:

\$350.00 in USA

Company Name:

Contacts:

Frank Key

ST

STRUCTURED SOFTWARE SYSTEMS, INC.

Address:

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B/C	Pe	ripherals:
Memory:			
Operating System:			
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Sup	oported:		
☑ U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐	_	
Support Services Ava	ailable:		
		support systems engineers	□ remote dial-in ☑ program modification
Additional Support In	nformation and Pricing:		
CUSTOMER TRAIN	IING/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Avail	lable: User Operating	Instructions	Price:
Documentation Avail	lable in other languages:		
NUMBER OF INST	ALLATIONS: 50	DATE OF FIRST I	NSTALLATION: March, 1981
ADDITIONAL INFO	DRMATION To s	search for string literals	s the syntax is:
FIND LI	T;(target\$) [;VERIFY]		
	y be any valid string ex scripted string array eler	•	uote field, a string variable or a
VERIFY ca numbers.	uses the lines containing	the search target to be	printed instead of listing the line
The outpu	it resulting from the FIN	ND command is directed	d to the system printer.
responsible for its so	eveloped by an independent software and support services. H	IP is not the manufacturer or	n on HP equipment. The supplier is solely co-developer of this software and makes no e supplier, its products or its services.

Printed in U.S.A. 8/81 5953-0646

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21005

**Expiration Date:** 

Product Name:

Mainframe(s):

### **DUMP ALPHA BINARY PROGRAM**

9845 B/T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### COPIES THE CRT PRINTOUT AREA TO A HARDCOPY PRINTER

The DUMP ALPHA binary program provides a new Basic statement which facilitates copying the CRT printout area to a hardcopy printer. The top 20 lines of the display which are accessed using the Basic PRINT statement may be copied to the internal thermal printer or to an external printer.

Symbols from the line drawing character set will be reproduced on the internal printer. Any video highlighting features which include underlining will be printed as an underlined character on the internal printer. Inverse video and blinking characters will be printed as normal characters. External printers which recognize the HP defined alternate characters for line drawing will also reproduce these symbols. If the external printer does not support the alternate character set, blanks will be printed in place of the line drawing characters.

DUMP ALPHA will print only lines that have been printed on the CRT. If just the top two lines have been printed on the CRT, then two lines will be output by DUMP ALPHA. This prevents feeding blank paper on the printer.

The statement syntax is:

DUMP ALPHA (select code (,hpib address))

Printer select code and hpib address may be optionally specified. If no parameters are specified, then output is printed on the system printer specified by the PRINTER IS statement. DUMP ALPHA may also be executed as a keyboard command.

The DUMP ALPHA binary program is supplied on a tape cartridge.

**DELIVERY:** Stock

Retail Price:

\$200.00 in USA

Company Name:

Contacts:

Frank Key

C1

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

Address:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B/T	Peripheral	S:
Memory:			
Operating System:			
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Sup	oported:		
VILLE (all regions)	☐ Mexico ☐ Latin America (all) ☐	Europe (all)	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Support Services Ava	ailable:		
	⊠ mail-in suppor □ on-site system		☐ remote dial-in ☑ program modification
Additional Support I	nformation and Pricing:		
CUSTOMER TRAIN	IING/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Avail	lable: User Operating Ins	tructions	Price:
Documentation Avai	lable in other languages:		
NUMBER OF INST	ALLATIONS: 24	DATE OF FIRST INSTALL	ATION: March, 1981
ADDITIONAL INFO	DRMATION		
RESPONSIBILITIES	STATEMENT eveloped by an independent software	supplier for operation on UP	equipment. The supplier is calcly
responsible for its so	oftware and support services. HP is not entation or warranty, express or impli	the manufacturer or co-develo	per of this software and makes no

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21006

Expiration Date:

Product Name:

### CROSS REFERENCE BINARY PROGRAM

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### SOFTWARE DEVELOPMENT AND DEBUGGING TOOL MAKES PROGRAMMERS MORE EFFICIENT

The XREF binary program is a valuable tool for programmers which will significantly reduce debugging time on large programs. The XREF program resides in memory along with the Basic program under development and will produce a cross reference table to show all identifiers and the line numbers where they occur. The cross reference table is useful during program development and can enhance the utility of a documentation package for the completed program.

Program environment (MAIN or SUBS) and identifier object options provide the programmer with the ability to selectively cross reference only items of interest. The option list includes the following objects:

AS Assembler Symbols

CALL Subprogram Calls (includes assembly ICALLs)

CN Constants
LB Labels

LN Line Numbers

NV Numeric Variables (simple)

NA Numeric Arrays
NF Numeric Functions
SV String Variables (simple)

SA String Arrays
SF String Functions

The cross reference items are printed in alphabetical or numeric order on the system printer. The XREF output is based upon the symbol table entries of the Basic program environment.

The XREF binary program is supplied on a tape cartridge and is available for use on the 9845B/C computers.

**DELIVERY:** 

Stock

Retail Price:

\$325.00 in USA

Company Name:

Contacts:

Frank Key

9

STRUCTURED SOFTWARE SYSTEMS, INC.

Address: BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B/C	Periphera	ls:
Memory:			
Operating System:			
Other Software:			
OUOTOMET AND	ODT		
CUSTOMER SUPP			
Geographic Area Su			
<ul><li>☐ Worldwide</li><li>☒ U.S. (all regions)</li></ul>		☐ Europe (all)	☐ Far East (all)
□ East	☐ Latin America (all)		
□ South			
<ul><li>☐ Midwest</li><li>☐ West</li></ul>			☐ ☐ Australia/N.Z.
Support Services Av	/ailable: ☑ mail-in supj	oort	☐ remote dial-in
on-site consulting	g ⊟ on-site syst	ems engineers	☑ program modification
Additional Support I	Information and Pricing:		
CUSTOMER TRAIN	NING/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Avai	il <b>able</b> : User Operating In	nstructions	Price:
Documentation Avai	ilable in other languages:		
NUMBER OF INST	TALLATIONS: 30	DATE OF FIRST INSTAL	LATION: December, 1981
ADDITIONAL INFO	ORMATION		
RESPONSIBILITIES	STATEMENT		



### **HP USE ONLY**

I.D. Code:

Application Code: 51.21008

**Expiration Date:** 

Product Name: SYMBOL TABLE SCRUBBER BINARY PROGRAM

Mainframe(s):

9835A/B and 9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### PROVIDES MORE AVAILABLE MEMORY SPACE FOR PROGRAMS AND DATA

The SCRUB binary program provides a new keyboard command to remove unused entries from the BASIC program symbol table. A symbol table entry is created for each new symbol that is used in a BASIC program statement. These symbols are the names of labels, variables, functions, subprograms, and assembly language identifiers.

If all lines that reference a symbol name are deleted from the program, the symbol table entry remains even though it is 'unused'. Such unused entries tend to accumulate as a program is being developed and modified. Since these entries take up valuable memory space, it is desirable to remove them.

The removal of unused symbol table entries is accomplished automatically when a SAVE and GET operation is performed, however, the use of SCRUB is many times faster (20 to 30 fold) and is accomplished entirely in memory so access to a mass storage device is not necessary.

The command keyword is: SCRUB

When SCRUB is executed, the symbol table for each program segment in memory will be examined for entries which are not referenced in the BASIC program. Unreferenced entries will be removed from the symbol table thus providing more available memory for programs and data.

The SCRUB binary program is supplied on a tape cartridge and is available for use on the 9835A/B and 9845B/C desktop computers.

DELIVERY:

Stock

Retail Price:

\$125.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIREM	ENTS		
Computer Model: 98	45 B/C or 9835 A/B	े के दें के दें के दें	Peripherals:
Memory:	*5.2		
Operating System:			
Other Software:			•
CUSTOMER SUPPOR	श	411.45	
Geographic Area Supp			
☑ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	Latin America (all)		
Support Services Avail	able: ☑ mail-in su	pport	☐ remote dial-in
	□ on-site sy		☑ program modification
Additional Support Info	ormation and Pricing:		
CUSTOMER TRAININ	NG/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Availab	ole: User Operating I	Instructions	Price:
Documentation Availab	ole in other languages:		
NUMBER OF INSTAL	LLATIONS: 15	DATE OF FIRST	INSTALLATION: April, 1981
ADDITIONAL INFOR	MATION		
			•
responsible for its softw	eloped by an independent soft ware and support services. HP i	s not the manufacturer of	ion on HP equipment. The supplier is solely or co-developer of this software and makes no he supplier, its products or its services.

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21009

Expiration Date:

Product Name:

# COMMENT STRIPPER BINARY PROGRAM

Mainframe(s):

9835A and 9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### PROCESS PROGRAMS TO REQUIRE LESS MEMORY AND EXECUTE FASTER

The COMMENT STRIPPER (STRIP) binary provides a new keyboard command to remove comments from a BASIC program in memory. Program comments are essential for documentation and are useful during program modification and debugging, but wasteful of memory space in a production program. STRIP provides a convenient way to remove all program comments between specified line numbers.

Comments on program lines may be preceded by either "!" or "REM" to indicate that a comment follows. STRIP will remove only comments indicated by the exclamation point "!". A fully commented BASIC program may be converted to a production version which requires less memory and executes faster. STRIP is many times (30-50 fold) faster than methods which required the program to be SAVEd on a mass storage medium in source (ASCII) form.

The STRIP command syntax is:

STRIP [(starting line) [, (ending line) ]]

Where: (Line number parameters are optional)

(starting line) is the line number where comment stripping begins.

(ending line) is the line number where comment stripping ends.

When both line number parameters are present, comments will be removed in the inclusive line number interval.

A single line number parameter may be used to indicate the line where comment stripping is to begin.

If no line number parameters are specified, then entire program is assumed.

The COMMENT STRIPPER binary is supplied on a tape cartridge and is available for the 9835A/B and 9845B/C desktop computers.

Retail Price:

\$125.00 in USA

Company Name:

Contacts:

Frank Key

Joinpany Name.

STRUCTURED SOFTWARE SYSTEMS, INC.

Address:

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B/C or 9835 A/B	3	Peripherals:
Memory:			
Operating System:			
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Sup	ported:		
	☐ Canada	☐ Europe (all)	□ Far East (all) 
☑ U.S. (all regions) ☐ East	□ Latin America (all)		
□ South			
☐ Midwest ☐ West		☐ South Africa	 ☐ Australia/N.Z.
Support Services Ava			
1	mail-in su∣	pport	☐ remote dial-in
☐ on-site consulting	□ on-site sys	stems engineers	□ program modification
Additional Support In	formation and Pricing:		
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Avails	able: User Operating	Instructions	Price:
Documentation Avails	able in other languages:		
NUMBER OF INSTA	ALLATIONS: 20	DATE OF FIRS	T INSTALLATION: April, 1981
ADDITIONAL INFO	RMATION		
RESPONSIBILITIES S	TATEMENT		

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21010

Expiration Date:

Product Name:

## SEARCH & REPLACE BINARY PROGRAM

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### ADDS A POWERFUL NEW COMMAND TO ENHANCE PROGRAM EDITING CAPABILITIES

The SEARCH & REPLACE program enhances program editing capabilities by providing a keyboard command to change identifier names and literal strings on a program-global basis. When editing a program it is often desirable to replace all occurrences of an item with another item. The new CHANGE command may be used to change names of labels, variables, functions, subprograms and literal strings throughout the entire program with a single CHANGE operation.

When changing symbol table resident identifiers, such as variables, labels and functions, the syntax for the CHANGE command is:

CHANGE (mnemonic), (old name ) TO (new name)
[,(start line) [,(end line)]] [;VERIFY]

(mnemonic) determines the identifier type, such as a label, variable, subprogram, function or assembler symbol.

(start line) and (end line) specify the line number range over which the replacement will occur. If no line numbers are specified the entire program is assumed.

VERIFY causes the changed lines to be printed on the system printer.

STRING REPLACEMENT — Literal string replacement will operate on all program text which appears to the right of the line number in a program listing. The command syntax is:

CHANGE LIT; (old\$) TO (new\$) [(start line) [,(end line)]] [;AUTO]

(old\$) and (new\$) may be any valid string expression.

Retail Price:

\$350.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIR	EMENTS		
Computer Model:	9845 B/C	Peripherals	S:
Memory:			
Operating System:			
Other Software:			. ·
CUSTOMER SUPP	PORT		
Geographic Area Sc	ipported:		
☐ Worldwide	☐ Canada ☐ Mexico ☐ Latin America (all) ☐	Europe (all)	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Support Services A	vailable:		
□ phone-in support     □ on-site consulting	🗵 mail-in suppo		<ul><li>□ remote dial-in</li><li>☑ program modification</li></ul>
CUSTOMER TRAI	NING/DOCUMENTATION  Not Applicable		Price:
Documentation Ava	ul <b>able</b> : User Operating In	structions	Price:
Documentation Ava	ilable in other languages:		
NUMBER OF INS	TALLATIONS: 50	DATE OF FIRST INSTALL	ATION: January, 1981
option of acce the appropria accepting the AUTO ca	ine is changed, it is displayed epting or rejecting that particulate syntax error message and line.	ar program line. Syntactical allow the programmer to distribute distributed and distributed are distributed as a second control of the distributed are distributed as a second control of the distributed as a second	lly incorrect lines generate make corrections before action. Changed lines are
printed on the replacement a	e system printer. Lines which a are printed followed by an err	are syntactically invalid or or message on the system	too long as a result of the printer.
The SEAI for use on th	RCH & REPLACE binary progree HP 9845B/C computers.	ram is supplied on a tape	cartridge and is available
RESPONSIBILITIES	STATEMENT		

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21011

Expiration Date:

Product Name:

Mainframe(s):

### LOAD SUB BINARY PROGRAM

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### PROVIDES POWERFUL NEW PROGRAM OVERLAY CAPABILITY

The LOAD SUB binary program provides three new BASIC keywords to facilitate program "overlaying". The overlay process allows a section of computer code to load into a memory area that was previously allocated to another section of the same executing program. The technique of overlaying is used to permit programs to run on a computer even if their total memory requirement is larger than the amount of memory available to them.

The LOAD SUB binary has three new programmable BASIC keywords to facilitate program overlaying. Subprograms and functions which are STOREd as PROG type files may be appended to existing BASIC programs, executed, and deleted. Loading these subprograms from PROG files is many times faster than using the LINK statement which operates only on DATA files containing programs in ASCII form.

#### The LOAD SUB Statement

The LOAD SUB statement loads one or more subprograms into memory from a program file (PROG), adding them to the end of the program currently in memory. Both subroutine subprograms (SUB) and function subprograms (DEF FN) can be loaded. If necessary, the added lines are renumbered.

#### The DELETE SUB Statement

The DELETE SUB statement is used to delete one or more subprograms from memory. The specified subprogram must be a subroutine subprogram (beginning with SUB).

### The DELETE FN Statement

The DELETE FN statement is used to delete one or more subprograms from memory. The specified subprogram must be a function subprogram (beginning with DEF FN).

Retail Price:

\$550.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

**BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060** 

Telephone:

SYSTEM REQUIRE	MENTS		
Computer Model:	9845 B/C	Periphera	ls:
Memory:			
Operating System:			
Other Software:			
CUCTOMED CUES	OPT		
CUSTOMER SUPPO	UNI		
Geographic Area Sup			
U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Ava	ailable:		
□ phone-in support     □ on-site consulting	⊠ mail-in suppo □ on-site syste		<ul><li>□ remote dial-in</li><li>☒ program modification</li></ul>
Additional Support I	nformation and Pricing:		
CUSTOMER TRAIN	IING/DOCUMENTATION		
Training Available:	Not Applicable		Price:
Documentation Avail	lable: User Operating Ins	tructions	Price:
Documentation Avai	lable in other languages:		
NUMBER OF INST	ALLATIONS: 12	DATE OF FIRST INSTAL	LATION: November, 1981
ADDITIONAL INFO	DRMATION		
same line numb desired subpro	B cannot be used to replace a pers. The subprogram to be re grams must have been created to binary routines.	eplaced must be deleted fir	rst. Files which contain the
The LOAD the 9845B/C co	SUB binary program is suppomputers.	olied on a tape cartridge a	and is available for use on
Deli	very: Stock		
responsible for its so	STATEMENT eveloped by an independent softwa iftware and support services. HP is n entation or warranty, express or imp	ot the manufacturer or co-devel	oper of this software and makes no

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21012

**Expiration Date:** 

Product Name:

Text editor for BASIC program SAVE data files

Mainframe(s):

9816 9845B&C
9836 9826

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This BASIC source code editor provides editing functions which are not included in the operating system editor. Editing with this program is much quicker and easier for moving blocks of lines, converting subroutines to subprograms, renumbering where ERRL= statements are involved(9845), changing variable names, stripping comments, etc. (These capabilities are obtained at the expense of no immediate syntax checking). The program is shown on the screen during editing as with the operating system editor, except that all lines are shown in their entirety with splitting of lines occurring at spaces, not in the middle of variable names or numbers. Besides the normal functioning of the usual edit keys such as DEL LN, INS CHR, DEL CHR, TAB, etc., some of the new editing features offered are:

Renumbering of program lines (including "ERRL=" or "ERRL( )" references to line numbers), and printing out of references to nonexistent lines.

Moving or copying a block of program lines to a new location.

Deletion of an entire word, variable name or number with a single keystroke. Immediate restoration of any undesired deletions.

Entry of nationalized and drawing characters directly without using CHR\$. INSert Line without concern for running out of line numbers.

Ability to create a file which can overlay selected lines in another program Reindenting all program lines so as to make the program more readable.

Comment stripping to squeeze in a program which uses nearly all of memory.

Search and Replace use to change variable names etc.

Search and Replace, use to change variable names, etc.

Listing of programs with titles, numbered pages with new pages starting where you specify, and line divisions occurring at spaces. Gives better documentation in an easier to read format.

With this software you can rapidly turn a poorly documented program into a neat, easy-to-read one by changing variable names, indenting, rearranging program blocks, and renumbering. Rather than saving 4 or 5 variations of a program and trying to maintain all of them, use this software for writing overlay files which convert an existing program to a new use. This program is invaluable for editing a program employing error trapping, or for breaking up a big program into a number of subprograms. It is handy for almost any program editing or documentation situation. Its cost is low enough that it will pay for itself very rapidly in savings of your valuable time.

Retail Price: \$149 including complete instructions

Company Name: L. W. James and Associates Contacts: 1525 East County Road 58

Address: Ft. Collins, CO 80524 Dr. Lawrence W. James

Telephone: (303) 484-5296 9-5 Weekdays (MST)

SYSTEM REQUIREM	MENTS		
Computer Model: 98	45 B or C	9836/9826/	Peripherals: External printer on 9836/26/16
Memory: See addi	tional informat	cion below	useful, but not required.
Operating System:		BASIC	
Other Software:			
CUSTOMER SUPPO	RT		
Geographic Area Sup	ported:		
U.S. (all regions)	☐ Canada ☐ Mexico ☐ Latin America (a ☐		
Support Services Ava			
☑ phone-in support ☑ on-site consulting		nail-in support n-site systems engineers	□ remote dial-in ⋤ program modification
Additional Support In	formation and Pricir	ng:	
CUSTOMER TRAINI	NG/DOCUMENTA	TION	
Training Available:			Price:
Documentation Availa	able:		Price:
in English			supplied with program
Documentation Availa	able in other langua	ges:	
NUMBER OF INSTA	LLATIONS:	DATE OF FIRS	ST INSTALLATION: 3/81
Supplied The progr you may edit i available beyo	on tape cartric on 5 1/4 inch am itself requ s limited only nd 128 Kbytes.	flexible disk for 983 ires about 128 Kbytes by the amount of add	. The size of the program which itional memory which you have s recommended. That will allow

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21013

Expiration Date:

Product Name:

Mainframe(s):

MASTER STRING EDITOR

9845 B/C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Master String Editor is a general purpose full screen editing program for creating and modifying serial and random access files whose elements are strings.

Files brought into memory can be scrolled or paged through a 20 line 'data area' of the screen. Characters or whole lines can be written over, inserted, or deleted using a cursor manipulated by the arrow and roll keys and using the editing keys (Insln, Delln, etc.) and the character keys. The full 20 line data area is active for editing.

Data are organized in memory as variable length strings ('records'); the maximum string length is set by the user. Records greater than 80 characters in length are represented by multiple lines on the screen, with wrapararound character insert and delete.

Commands with arguments are entered on a special command line, below the screen data area: commands implemented include:

EDIT, GET, SAVE, RESAVE, RANDOM EDIT, RANDOM SAVE, RESAVE, \*Mass storage operations: CAT, DISPLAY, UNIVERSAL GET

UP, DOWN, TOP, BOTTOM, RECORD, LOCATE (a substring) \*Cursor movement:

\*Global/local record INSERT, DELETE, MOVE, DUPLICATE, COPY, SORT,

CHANGE (one substring to another), OVERLAY, COLUMN INSERT, manipulation:

COLUMN DELETE, COLUMN MOVE

20NE (limits action of global record manipulation commands), \*Other functions:

LENGTH, PRINT, PRINTER IS

The UNIVERSAL GET operation reads serial or random access DATA file containing numeric, string, or mixed data types; it can be used to view the structure of such files (including the sequence of different data types within the file) or to convert numeric to string data.

Protection of files and the use of multiple mass storage devices are supported.

This program is fully on kbd and error trapped. Keys function as they do in the operating system and many commands parallel o.s. commands. Sophisticated users have access to highly complex file and data manipulations, but beginners can operate the program with a few very simple commands.

Retail Price:

\$550 (includes program cartridge and documentation)

Company Name:

University Software Associates

Contacts:

Address:

P.O. Box 433

Storrs, CT 06268

Telephone:

SYSTEM REQUIRE	MENTS	7	
Computer Model:	9845 в/с	F	Peripherals: None
Memory: 187K			
Operating System:	(SORT operation re	quires Advanced P	rogramming ROM)
Other Software: Nor	ne		
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
☐ Worldwide  X U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West			
Support Services Av	vailable:		
	⊠ mail-in s g □ on-site s	upport ystems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional Support	Information and Pricing:		
•			
CUSTOMER TRAIL	NING/DOCUMENTATION		
Training Available:	Training Manual		Price: \$5.00
Documentation Ava	ilable: User Guide, Com Key Dictionary Quick Command		Price: \$10.00 (for set of one of each)
Documentation Ava	ilable in other languages: No		
NUMBER OF INST	TALLATIONS: 0	DATE OF FIRST	INSTALLATION: N/A
ADDITIONAL INF	ORMATION		
(user prog characters environmen	rammable to 4800). At	187K, memory hol characters, etc; e size limited on	ds 1000 records of 80 user programmable for larger by by mass storage.
	**************************************	1981: MASTER TEX	T PROCESSOR *
DECONNEIDII ITIEC	CTATEMENT		•

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21014

Expiration Date:

Product Name: MEMORY MASS STORAGE

BINARY PROGRAM

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### NEW BASIC STATEMENT ALLOWS USE OF MAIN MEMORY AS A MASS STORAGE DEVICE

The MMS binary provides the ability to use part of the 9845B/C's main memory as a "mass storage device". This new mass storage device is functionally identical to a physical medium, such as tape or disk, with the obvious exception that its contents are lost when the power is turned off. The speed improvements vary depending on the type of operation being performed. LOADing/STORing a program is about 10 times faster than the 9895 floppy disk, and 75 times faster than tape, while FREAD/FPRINT operations are 30 times faster than the 9895 floppy disk.

By combining a large main memory with a floppy disk and the MMS binary, overall system performance is superior to that which is attainable using a much more expensive hard disk. Some typical applications include the following:

- Existing programs which use temporary working files on tape or disk may be easily modified to keep their temporary files in memory. This can speed up operations considerably.
- The memory area may be used as intermediate storage when copying files from one disk or tape to another, even when only one drive is available.
- When it is necessary to rearrange the text of a program, or to make existing code into a subprogram, the usual method is to SAVE the various sections of the program into separate files, then LINK the files together in the desired order. This operation can be speeded up by using memory files.

Main memory is allocated as RAM mass storage in blocks of 64 kilobytes. Each block is the equivalent of 255 records of disk space. The number of blocks which can be allocated is limited only by the available memory.

**Delivery:** Stock

Retail Price:

\$550.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIREM	MENTS	
Computer Model:	9845 B/C	Peripherals:
Memory:		
Operating System:		
Other Software:		
CUSTOMER SUPPO	PRT	
Geographic Area Sup	ported:	
U.S. (all regions)	□ Latin America (all) □	
Support Services Ava	ilable:	
□ phone-in support     □ on-site consulting		<ul><li>□ remote dial-in</li><li>⋈ program modification</li></ul>
Additional Support In	formation and Pricing:	
CUSTOMER TRAIN	ING/DOCUMENTATION	
Training Available:	Not Applicable	Price:
Documentation Availa	able: User Operating Instructions	Price:
Documentation Availa	able in other languages:	
NUMBER OF INSTA	ALLATIONS: 6 DATE OF FIRS	T INSTALLATION: March, 1982
ADDITIONAL INFO	RMATION	
The new B.	ASIC keyword which reserves RAM mass s	torage is:
	RESERVE MASS STORAGE RAM (num	neric expression)
rounded to the	nience, this may be entered as RMSR. The nearest integer, is the number of 64K byte. The unit specifier for memory mass storage.	blocks of memory to be set aside as
The MMS computers.	binary is supplied on a tape cartridge and	is available for use on the 9845B/C
RESPONSIBILITIES S	TATEMENT	

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21015

Expiration Date:

**Product Name:** 

### PERFORMANCE MONITOR **BINARY PROGRAM**

Mainframe(s):

9845B/C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### FIND COMPUTATIONAL BOTTLENECKS AND IMPROVE PROGRAM EXECUTION SPEED

The MONITOR binary program provides a tool to monitor the performance of an executing BASIC program and provides histogram data indicating relative execution time required for each BASIC program line. This data reveals where program execution time is being consumed so the programmer may optimize the code and/or data structures to speed program execution time.

The BASIC program line number being executed is sampled at periodic intervals to create histogram data in an integer array sized to contain one element for each line number to be monitored. The 98035 Real Time Clock (RTC) may be used to create interrupt intervals in increments of one millisecond (10 ms is typical). If no RTC is available, an internal machine cycle of approximately 1.5 ms may be used by specifying an unused select code.

The MONITOR binary has two keywords to facilitate measuring the BASIC program. The statement syntax for these keywords is:

MEASURE array(\*) , \( \) selectcode \( \) [,\( \) interval \( \)]

MEASURE OFF

where:

array(\*)

one dimensional integer array containing one element for each BASIC

program line being monitored.

( selectcode ) select code for 98035 Real Time Clock

(interval)

sample interval in milliseconds (10 ms default)

Between MEASURE and MEASURE OFF, the BASIC program line number is sampled every "interval" milliseconds. If the line number falls in the range of the array's subscripts, then the array element whose subscript equals the line number is incremented. (Otherwise, nothing is done.)

Retail Price:

\$325.00 in USA

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIRE	EMENTS			
Computer Model:	9845 B/C		Peripherals:	
Memory:				
Operating System:	<b></b> ·			
Other Software:				
CUSTOMER SUPP	PORT			
Geographic Area Su	ipported:			
<ul> <li>□ Worldwide</li> <li>₺ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Latin Americ ☐	a (all)		
Support Services Av	vailable:			
		☑ mail-in support  ☐ on-site systems engineers	☐ remote dial-in ☑ program modification	1
Additional Support	Information and P	Pricing:		
CUSTOMER TRAIL	NING/DOCUMEN	NTATION		
Training Available:	Not Applica	able	Price:	
Documentation Ava	il <b>able</b> : User Op	perating Instructions	Price:	
Documentation Ava	ilable in other lan	guages:		
NUMBER OF INS	TALLATIONS:	12 DATE OF F	FIRST INSTALLATION: December, 1	1981
ADDITIONAL INF	ORMATION			
line of the pro data can be us The Perfor	gram, i.e., perce sed to judge wh	ent of time spent on line N nat parts of the program s binary program is supplied	relative amounts of time spent in earlies Array(N)/SUM (Array) * 100%. To should be reworked for more speed on a tape cartridge and is available	his
Del	ivery: Stock			
DECDONORU ITIES	OTATEMENT		<del></del>	·····

#### **RESPONSIBILITIES STATEMENT**

### **HP USE ONLY**

I.D. Code:

Application Code: 51.21016

**Expiration Date:** 

Product Name:

Mainframe(s):

### MOVE & COPY BINARY PROGRAM

9845 B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### ADDS POWERFUL CAPABILITY TO MOVE AND COPY BLOCKS OF PROGRAM TEXT

The MOVE & COPY program enhances program editing capabilities by providing keyboard commands to move sections of program text within a memory resident program. When creating or modifying programs it is often desirable to transport entire sections of program code. Program lines may be moved/copied from one program segment to another or to a new location within the same segment. The keyboard commands provided by the binary program include:

MOVE LINES	<pre>⟨start⟩ [, ⟨finish⟩ ]</pre>	TO	<pre>(newstart) [, (incr)]</pre>
COPY LINES	(start) [, (finish) ]	TO	<pre>(newstart) [, (incr) ]</pre>

where:

(start) and (finish) are line numbers or labels which specify the range of source lines; if (finish) is omitted, only the line at (start) is copied.

(newstart) is an integer specifying the line number for the first copied line. The "target area" begins at (newstart) and extends to (newstart) + (# of lines -1) \* (incr).

(incr) is the desired increment between line numbers of copied lines; it defaults to 10. The copied lines are always numbered with uniform spacing, even if the source lines were not.

COPY replicates the source lines in the target area and leaves the source lines unchanged. Line number references in the target area are updated.

MOVE replicates the source lines in the target area and then deletes the source lines. All line number references are updated to the moved lines.

The target area may not contain any existing lines and may not lie within the bounds of the source area.

Retail Price:

\$325.00 in USA

Company Name:

Contacts:

Frank Key

STRUCTURED SOFTWARE SYSTEMS, INC.

Address: BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIRE	MENTS				
Computer Model:	9845 B/C	Peripheral	s:		
Memory:					
Operating System:					
Other Software:			•		
CUSTOMER SUPPO	RT				
Geographic Area Sup	ported:				
<ul> <li>□ Worldwide</li> <li>☑ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Mexico ☐ Latin America (all) ☐	Europe (all)			
Support Services Ava	ilable:				
<ul><li>☒ phone-in support</li><li>☒ mail-in support</li><li>☐ on-site consulting</li><li>☐ on-site systems engineers</li></ul>			☐ remote dial-in ☑ program modification		
Additional Support Information and Pricing:					
CUSTOMER TRAIN	ING/DOCUMENTATION				
Training Available:	Not Applicable		Price:		
Documentation Available: User Operating Instructions Price:					
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 12 DATE OF FIRST INSTALLATION: March, 1982					
The syntax for	RMATION ience in moving large section the new RENumber comma  REN [ (newstart) [ , (incr) to parameters are the same as	nd is: )]] [ IN , (startline) [ , (	endline)]]		
numbers (or la	bels) of a portion of the pro and the default for (endlin	ogram which is to be ren	numbered. The default for		
The MOVE & COPY binary program is supplied on a tape cartridge and is available for use on the HP 9845B/C computers.					
responsible for its sof	TATEMENT Eveloped by an independent software tware and support services. HP is no entation or warranty, express or imp	ot the manufacturer or co-develo	per of this software and makes no		

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21017

**Expiration Date:** 

Product Name:

### LIF UTILITIES

Mainframe(s):

9845B/C & 9826/36

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### CONVERTS/TRANSFERS DATA FILES TO LIF FORMAT FILES

The LIF UTILITY program provides the ability to copy serial data files to and from 9825/9835/9845 (98×5) and 9826/36 (LIF) format mass storage media. Data files originating on 98×5 computers may be transferred to LIF format for use by the 9826/36 computers. The source data files may contain any type of data (numeric, array or ASCII), but the LIF files must be ASCII only. Destination files are created the proper size and will contain only string data. Operation of the LIF UTILITY program requires the availability of a disk drive which can be accessed by both the 98×5 computers and the 9826/36 (e.g. HP 9895 floppy disk).

Ancillary functions included in the program provide the capability to manipulate the LIF directory. The following functions are provided:

- Create file entry creates an entry in the directory in preparation for receiving files.
- Purge file removes an existing entry from the directory.
- Catalog lists the contents of the directory.
- Zero the directory removes all directory entries thus erasing the medium.
- Copy file transfers 98×5 format to LIF format or vice versa.

The LIF UTILITY program is available in two versions. LIF UTILITY 45 runs on the 9845B/C computer and is supplied on a tape cartridge.

LIF UTILITY 26/36 runs on the 9826/36 computers and is supplied on a mini floppy disk.

**DELIVERY:** Stock

Retail Price:

500.00 U.S.

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone:

SYSTEM REQUIREMENTS				
Computer Model: 9845B/C or 9826/36 Peripherals: 9895 floppy disk				
Memory:				
Operating System:				
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide       □ Canada       □ Europe (all)       □ Far East (all)         ☑ U.S. (all regions)       □ Mexico       □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				
Support Services Available:				
☒ phone-in support       ☒ mail-in support       ☐ remote dial-in         ☐ on-site consulting       ☐ on-site systems engineers       ☒ program modification				
Additional Support Information and Pricing:				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: Not Applicable Price:				
Documentation Available: User Operating Instructions Price:				
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 2 DATE OF FIRST INSTALLATION: May, 1982				
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT				

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21018

**Expiration Date:** 

Product Name:

9836 / 9826 / 9816 UTILITIES PACKAGE

Mainframe(s):

9836

9826

9816

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This Pac includes several programs and subroutines to improve the usefulness and ease of use of your computer. Programs are shown in all capital letters. Subroutines have lower case names except for the first letter.

- 1. AUTOST - Set the internal real time clock after power up by entering the current date and time in a free form format. The computer will understand any common method of specifying the date and time.
- 2. Readclock Gives the time (12 or 24 hour), the date, and the day of the week from the internal real time clock.
- 3. UNIVPLOT Universal Cartesian Plotting Program. This program draws graphs in a publication style format of y versus x and (if desired) a parameter. Everything possible is done automatically, such as scaling of axes, centering of labels, and sorting of data points. The program has its own command language, allowing a large number of options and manual override of any automatic feature desired, while avoiding the need for the user to answer a whole list of questions. Input of data to be plotted is from the keyboard, from a data file, or from a function typed in from the keyboard. After data is entered, it may be listed or modified. Curves are drawn through the data points (which may have standard deviations specified if desired) using a cubic

spline routine. 4. CRUNCH

- Combines the HP programs FILE SIZER and REPACK with automatic operation to reduce all files on a disk except those you specify to their minimum length, and then packing each file next to the previous one at the lowest possible address on the disk. This results in the maximum amount of free space on the disk, with the free space all in one block at the end.
- 5. CALENDAR Prints a calendar for any modern year which you specify. Some holidays are marked.
- 6. COMPARE - Compare two versions of the same program, and print out their differences.
- 7. RDNGRAPH Beautiful graphic designs based on the random number generator.

Retail Price:

\$95 including instructions

Company Name: L. W. James and Associates 1525 East County Road 58

Contacts:

Address:

Ft. Collins, CO 80524

Dr. Lawrence W. James

Telephone:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIREM	MENTS				!
Computer Model: 98	836 9826	9816	Pe	eripherals:	ā
Memory: UNIVPLOT			Kbytes, others	s will run in minimum syst	em.
Operating System: B	ASIC				
Other Software:					
CUSTOMER SUPPO	RT				
Geographic Area Supp	oorted:				
☑ Worldwide ☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	Latin Americ	a (all)			_
Support Services Avai					
☑ phone-in support ☑ on-site consulting	[ [	□ mail-in suppor □ on-site system	rt ns engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>	
Additional Support Inf	formation and P	ricing:			
CUSTOMER TRAINI	NG/DOCUMEN	ITATION			
Training Available:				Price:	
Documentation Availa		th the prog	cams.	Price:	
Documentation Availa					
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 4/82					
ADDITIONAL INFORMATION					
RESPONSIBILITIES ST	TATEMENT				



#### **HP USE ONLY**

I.D. Code:

Application Code: 51.21019

**Expiration Date:** 

Product Name:

Programmer's Aids

Mainframe(s):

9845B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The 9845B/C Programmer's Aid Package is a series of utility programs designed to assist the programmer in designing, developing, and debugging programs. The package provides program editing and documentation functions not found within the 9845B/C editor, and provides program development tools similar to those found on mainframe computers. On command from the keyboard, the Programmer's Aid package can provide information on the structure of an individual module or an entire program, and can alter the program in a variety of ways to suit many programming and maintenance situations.

### Features

- -Provided variable, label, and line number cross references.
- -Provides a statement cross reference.
- -Undeclared variables and unreferenced labels can be detected.
- -Modules may be loaded and stored by name.
- -Provides string search and replace program editing.
- -Scope of commands may be limited to a single module if desired.

### Benefits

The Infotek Programmer's Aid package provides many of the programmer productivity tools commonly found on large mainframe systems. By encouraging and assisting modularity in program design, large systems can be designed and constructed on the 9845B/C in significantly less time and with significantly greater reliability and maintainability than is possible using only the 9845B/C editor. By detecting undeclared variables and unreferenced labels, errors caused by misspelling and incorrect structure may be detected early in the coding phase of program design, resulting in a shorter and more complete program test verification cycle.

Retail Price:

\$550.00

Company Name:

Infotek Systems

Contacts:

Theo Stevens

Address:

1400 N. Baxter

Anaheim, CA 92806

Telephone:

714 956-9300 800 854-3469

### SYSTEM REQUIREMENTS Computer Model: 9845B/C Peripherals: Printer recommended Memory: 56k bytes or greater Operating System: Firmware Other Software: CUSTOMER SUPPORT Geographic Area Supported: · ☐ Far East (all) ☐ Canada ☐ Europe (ail) Morldwide □ U.S. (all regions) □ Mexico ☐ Midwest ☐ South Africa □ Australia/N.Z. ☐ West Support Services Available: Mail-in support remote dial-in ☐ program modification □ on-site systems engineers Additional Support Information and Pricing: \$20/yr. Software Notification Service (SNS) Comprehensive Support Service (CSS) \$75/yr. **CUSTOMER TRAINING/DOCUMENTATION** Price: Training Available: Price: Documentation Available: \$15.00 (beyond 2 incl.) Infotek Programmer's Aids Referenced Manual Quick Reference Card 5.00 Documentation Available in other languages: NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: ADDITIONAL INFORMATION Consulting Service for interfacing to existing data acquisition system available at extra charge. INFOTEK SOFTWARE SUPPORT PLAN INFOTEK will have a two tiered support plan, corresponding to its two different kinds of products. The first tier will be for utility package customers and stand-alone customer for the manufacturing and engineering data control systems. The second will be for full-support customers of the complete application packages. ON-SITE CONSULTING ON-SITE consulting will be provided at a negotiated charge.

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21020

**Expiration Date:** 

Product Name:

Mainframe(s):

SECURITY AND REVISION UTILITY

9845 B/C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### Function:

The security and revision utilities are designed to enable individuals or organizations, developing applications software for use by others, to have a high degree of control over maintenance of that software.

The security system prevents users from EDITing, LISTing, SAVEing, Or STOREing programs, giving the developer complete confidence that copies in use are as distributed.

The revision functions make it possible for the programmer, on supplying the appropriate security code, to attach current revision information in the binary section of the stored program. The user is able to interrogate this revision information at will by using new basic language functions. Hewlett-Packard OEM customers, software suppliers and organizations with a number of 9845's in use will find these utilities particularly useful.

#### Feature:

- \* Gives the applications programmer a security system that prevents users from tampering with code.
- \* Provides a password system to allow the applications programmer to unlock security and gain access to protected area.
- \* REVISION IS command allows applications programmer to label programs providing for easy future identification.
- \* Revision information can be interrogated at will but modified only by supplying the correct protection code.

Retail Price: Canada \$300

Europe and elsewhere U.S. \$250

\$250 U.S.A.

Company Name: Northwest Digital Ltd.

Contacts:

John Letts

Address:

250 - 10991 Shellbridge Way Richmond, British Columbia

Robin McKinney

Telephone:

(604) 270-7261

SYSTEM REQUIREMENTS				
Computer Model:	9845 B/C	Perip	herals:	
Memory:				
Operating System:			configuration. The only	
Other Software:	consideration is that 1984 bytes of memory must be available to load the SECREV binary program.			
CUSTOMER SUPP	PORT			
Geographic Area Su	upported:			
☐ U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐			
Support Services Av				
	d □ mail-in supp g □ on-site syste		<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>	
Additional Support	Information and Pricing:			
CUSTOMER TRAIL	NING/DOCUMENTATION			
Training Available: On-site training can be provided Price:				
Documentation Ava	ilable: A comprehensive us provided	ers manual is	Price:	
Documentation Ava	ilable in other languages:			
NUMBER OF INSTALLATIONS: 22 DATE OF FIRST INSTALLATION: August 1981				
ADDITIONAL INFORMATION				

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21021

Expiration Date:

Product Name:

PROGRAMMERS 'AIDS' PACKAGE

Mainframe(s):

9845 B/C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### Function:

The 'AIDS' package is a set of new BASIC language statements and commands that were designed to:

- Improve the productivity of HP 9845 system programmers by providing powerful program diagnostic and editing tools not available in the operating system as supplied by Hewlett Packard.
- B) Improve the quality of software by providing powerful program documentation and maintenance functions.

Six functional areas are addressed: SYMBOLIC CROSS REFERENCE - PROGRAM DIAGNOSTICS - MEMORY ALLOCATION MAPPING - SYMBOL TABLE SECURITY AND SYMBOL RENAMING - STRING SEARCH AND REPLACE.

#### Features:

- \* 'AIDS' can be set to perform on from one to sixteen or all BASIC environments (BASIC environments are main program, subprograms and multi-line functions).
- \* 'AIDS' were designed as statements to be executed both from a BASIC program and from the keyboard (only SEARCH, REPLACE and STRIP AIDS are commands to be executed from the keyboard only).
- \* Output generated by the 'AIDS' utility is paginated and sent to the current printer, single or double spaced as required.
- \* Complete utility is approx. 30k bytes but can be loaded in seperate functional binary program modules as required.

\* Synonyms have been defined to make 'AIDS' simpler to use

Statement	Synonym
XREF	XA
XREF VARIABLE	XV
XREF LINE LABEL	XL
XREF MODULE	XM
MAP EXTERNAL	ME
DIAGNOSTICS	DIAG
MEMORY MAP	MM
RENAME SYMBOL	RS
SEARCH LIST	SL
SEARCH REPLACE	SR

Retail Price: Canada \$850

U.S.A.

\$750

Europe and Elsewhere U.S. \$750

Company Name: Northwest Digital Ltd.

Contacts: John Letts

Address:

250 - 10991 Shellbridge Way Richmond, British Columbia

Robin McKinney

Telephone:

(604) 270-7261

SYSTEM REQUIREMENTS				
Computer Model:	9845 B/C		Peripherals:	
Memory:				
Operating System:	The utility can be used on any 9845 B/C confuguration.			
Other Software:	The only consideration is that sufficient memory must be available to load the binary modules required. The largest module is approximately 9k bytes.			
CUSTOMER SUPP	PORT			, , , , , , , , , , , , , , , , , , , ,
Geographic Area Su	ipported:			
☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	□ Latin America □	ı (all)		
Support Services Av		2 11 1		41-41
★ phone-in support     □ on-site consultin		] mail-in support ] on-site systems engineers	□ remote □ progra	e dial-in m modification
Additional Support Information and Pricing:				
CUSTOMER TRAIL	NING/DOCUMEN	TATION		
Training Available: On site training can be provided. Price:				
Documentation Available: A comprehensive users manual is Price:  provided.				
Documentation Available in other languages:				
NUMBER OF INS	TALLATIONS:	22 DATE OF I	FIRST INSTALLATION:	August 1981
ADDITIONAL INF				

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21022

Expiration Date:

Product Name:

Mainframe(s):

FILE EASY 45

9845 B/C

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### COMPREHENSIVE FILE MANAGEMENT SOFTWARE

FILE EASY 45 is comprehensive file management software that substantially enhances file documentation and file handling of the 9845 operating system. FILE EASY 45 is efficient, easy to use, and will save considerable time in routine file maintenance.

FILE EASY creates and maintains an extended storage directory. This directory is in addition to the standard catalog and allows 126 characters of extra descriptive information per file — 70 character description, date created, date modified, date backed up, programmer, system, and more. Protect codes may be included in the directory. A password allows protect codes to be accessed. Codes can then be listed and are automatically supplied when necessary to allow file handling operations to proceed.

Any file can be manually documented using the ADD/EDIT functions of the FILE EASY utilities. Programs can be quickly and automatically added to the directory as the program is stored. FILE EASY provides several useful subprograms for use in custom applications. When incorporated in a program, these callable functions permit file documentation to be automatically added or edited each time your application is run.

FILE EASY provides extensive file handling functions. Information from both directory and catalog is combined and made available to the file handling functions. Functions may be performed on single files or groups of files. Single files are specified by name and may be copied, backed up, recovered, renamed, protected, or purged. Groups are specified by either searching or selecting. Searching allows the user to specify criteria that files must meet (e.g., modified after 9/10/82 and containing 'math' in the description). Selecting allows the user to pick specific files or groups of files from listings on the CRT (e.g., files 1 and 3; files from 38 to 49; next 17 files). Once selected, the group can be listed, copied, backed up, recovered, protected, and purged. The current group can be further narrowed by either searching or selecting again.

Retail Price:

\$850.00 U.S. (\$900.00 Canada)

Company Name:

ABACUS (Division of Calculus, Inc.)

Contacts:

Steven Dercks

Address:

4228 PARK AVENUE SOUTH, MINNEAPOLIS, MN 55407

Telephone:

(612) 827-2689 (Collect)

SYSTEM REQUIREMENTS			
Computer Model: 9845 B/C		ripherals:	
Memory: 187K	Requir	ed: Internal or external hard copy printer.	
Operating System:		Mass storage-tape, flexible disk, or 4.5 meg winchester	
Other Software:	·		
CUSTOMER SUPPORT	·		
Geographic Area Supported:			
<ul><li>☐ South</li><li>☐ Midwest</li><li>☐</li></ul>	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
Support Services Available:			
Support Services Available:            □ phone-in support         □ on-site consulting         □ on-site systems engineers         □ program modification         □ program modification         □ on-site systems engineers         □ program modification         □ program modifica			
Additional Support Information a	nd Pricing:		
Software maintenance contract a		ch.	
CUSTOMER TRAINING/DOCU	MENTATION	A A A A A A A A A A A A A A A A A A A	
Training Available: Contract		Price:	
Documentation Available:  User Manual and Programmer Documentation.  User Manual available separately at \$45.00 (applicable to purchase).			
Documentation Available in other	r languages:		
NUMBER OF INSTALLATIONS	DATE OF FIRST IN	NSTALLATION: September, 1982	
ADDITIONAL INFORMATION			
your organization's file manag	re than a dozen programs and utilities to ement system. It will improve file inte FILE EASY conserves storage media by	egrity and help prevent accidental	
When ordering FILE EASY storage devices you will be using	(, include a list of all option ROMS ins 3.	stalled in your 9845 and the mass	
ABACUS provides softwar annual software maintenance co	re support including updates and fixes for ontracts are available.	90 days from purchase. Thereafter,	
DELIVERY: Stock			
RESPONSIBILITIES STATEMENT			

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

### Software Supplier **Product Summary**



### **HP USE ONLY**

I.D. Code:

Application Code: 51.21023

**Expiration Date:** 

Product Name:

### COMMAND FILE / MEMORY MASS STORAGE ROM

Mainframe(s):

9845B/C

The COMMAND FILE/MEMORY MASS STORAGE ROM, another essential product from Structured Software Systems, Inc., expands your Hewlett Packard 9845 to automatic execution of streams of commands without human intervention. Now, for the first time, it is possible to approach applications of such length and complexity that were previously feasible only in a batch environment.

Command files are lists of commands, statements, operations, and keystrokes which emulate operator interaction with the computer. They allow you to use your valuable time elsewhere while the command file runs the computer. Command files may include Special Function Keys. They may be executed by a single keyboard command, called from an executing BASIC program, called by another command file, AND they may be nested and recursive. This powerful capability will:

- SAVE TIME
- EXPAND THE CAPABILITY OF YOUR MACHINE
- CURE THE FRUSTRATION and BOREDOM OF REPETITIVE JOBS

NEW COMMANDS provided with CF / MMS ROM to facilitate your use of command files include:

#### CREATING and EDITING COMMAND FILES

Command files may be created by BASIC programs or by keyboard entry with the following commands:

- EDIT CMD "cmd file name"
- A special edit mode wherein command files may be created and modified.
- LOG CMD "cmd file name"
- Creates a command file by storing commands as they are executed.

#### USING COMMAND FILES

Information pertinent to a job may be passed on to the system as parameters by the start command. To start a command file:

DO CMD "cmd file name" (parameter 1, parameter 2, . . )

### UTILITIES

Various utility commands are provided.

- LIST CMD # selectcode 〈,hpib〉 〈;"cmd file name"〉
- LIST CMD ("cmd file name")
- Lists all or specified command files.
- LOAD CMD "name:msus"
- Reads command files from the specified mass storage file into memory.
- RE-NAME CMD "old cmd file name" TO "new cmd file name"
  - Changes the name of a command file.
- SCRATCH CMD ("cmd file name")
- Erases all or specified command files from memory.
- STORE CMD "name:msus"
- -- Creates a mass storage file for all memory-resident command files.

Retail Price:

\$1000

Company Name:

Contacts:

Frank Key

STRUCTURED SOFTWARE SYSTEMS, INC.

Address:

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone: 609-267-1616

SYSTEM REQUIREME	ENTS			
Computer Model: 98	845B/C		Peripherals: ——	
Memory: — —				
Operating System:				
Other Software:	<del></del>			
		· · · · · · · · · · · · · · · · · · ·		
CUSTOMER SUPPOR	т			
Geographic Area Suppo	orted:			
🛚 U.S. (all regions) 🗆	Canada  Mexico Latin America (all)			
Support Services Availa				
		pport stems engineers	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>	
Additional Support Info	rmation and Pricing:			
CUSTOMER TRAININ	IG/DOCUMENTATION			
Training Available: N	ot Applicable		Price:	
Documentation Available: User Operating Instructions Price:				
Documentation Availab	le in other languages:	None		
NUMBER OF INSTAL	LATIONS:	DATE OF FIRS	T INSTALLATION:	
MEMORY MASS STORAGE causes memory to be utilized as a mass storage device. Now you can eliminate time-consuming, media-wearing accesses to your mass storage device by reserving blocks of memory for temporary storage. Existing programs should require NO CONVERSION to take advantage of this powerful capability. The major advantages of using RAM mass storage are:  • INCREASED SPEED for mass storage operations				
	• SAVE media wea	•	se operations	
Speed improve	ements obtained from u	using MEMORY MA	ASS STORAGE are attributed to:	
		age device to posit		
		op dea of men		

### RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

### Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21024

**Expiration Date:** 

**Product Name:** 

PROGRAMMER'S TOOL KIT ROM

Mainframe(s):

9845B/C

The TOOL KIT ROM adds the most desired utilities and editor enhancements to your HP 9845 with the convenience and efficiency of a plug-in ROM. These system enhancements were designed by Structured Software Systems, Inc. to aid in program development, optimization, and documentation. The TOOL KIT contains the necessary "tools of the trade" to:

- IMPROVE programmer productivity and morale
- REDUCE debugging and modification time
- IMPROVE program execution speed
- REDUCE program memory requirements
- IMPROVE documentation
- SAVE MONEY

The TOOL KIT consists of new and enhanced editor commands, essential utility commands, optimization aids, and program statements and functions. It pays for itself many times over by the increase in productivity it stimulates.

#### **EDITOR COMMANDS:**

- CHANGE A keyboard command to change identifier names or literal strings.
- ◆ FIND A command to search and report on a specified target.
- LCOPY A command to duplicate sections of a program.
- LMOVE A command which moves program lines:
- REN RENumber has been extended to perform selective renumbering.

### **GENERAL UTILITY COMMANDS:**

- MAP
   The Memory Mapper provides the location of program segments, variables, and arrays. It lists the functions, labels and subprograms in each segment.
- MSI Convenient shorthand for the MASS STORAGE IS command.
- SCRUB Removes unused entries from the symbol table to free valuable memory.
- SHOBIN Names the binary programs present in memory.
- SHOKEY Names primary and secondary keywords for binary programs.
- STRIP Removes comments from memory resident programs.
- UNSECURE Allows listing a secured program.
- XREF Cross references identifiers by defining line and all references.

### PROGRAM STATEMENTS and FUNCTIONS:

- AVAILABLE MEMORY FUNCTION AVM returns the amount of remaining memory.
- DECIMAL TO BINARY FUNCTION Converts decimal numbers to binary strings.
- DECIMAL TO HEXADECIMAL FUNCTION Converts decimal numbers to hexadecimal.
- MEASURE . . . MEASURE OFF STATEMENT Monitors the relative execution time for each line of a BASIC program and provides the results as histogram data.
- PRNT ALPHA STATEMENT Prints the CRT display to a hardcopy printer.
- LIST A LINE FUNCTION -- LSTLN\$ returns the text of a BASIC line.
- STORELINE STATEMENT -- Stores BASIC program lines from within an executing program.

Retail Price:

\$1500

Company Name:

Contacts:

Frank Key

Address:

STRUCTURED SOFTWARE SYSTEMS, INC.

BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone: 609-267-1616

SYSTEM REQUIREMENTS		
Computer Model: 9845B/C	F	Peripherals: —— ——
Memory: — —		
Operating System: — —		
Other Software: — —		
CUSTOMER SUPPORT		
☐ Midwest ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
CUSTOMER TRAINING/DOCUME  Training Available: Not Applica	ble	Price:
Documentation Available: User  Documentation Available in other lan	Operating Instructions nguages: None	Price:
NUMBER OF INSTALLATIONS:	10 DATE OF FIRST	INSTALLATION: July 82
•	DEL LN  Operation of the delete line key has been alto the EDIT mode are placed in the RECALL to pressing the RECALL key.  EDIT  Operation of the EDIT command has been mill find an ISOURCE (assembly language) to otherwise it will find a BASIC label.  DEFAULT MSI  A default MASS STORAGE SELECT CODE in up and when SCRATCH A is executed, the did This feature allows AUTO START operation from the supplied.	nodified as follows: Executing EDIT (label) label of the requested name if one exists, may be specified when ordering. At power-refault code specifies the mass storage unit.
RESPONSIBILITIES STATEMENT  This software was developed by an in	dependent software supplier for operati	on on HP equipment. The supplier is solely

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

### Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21025

**Expiration Date:** 

Product Name:

Mainframe(s):

START UP

HP 9826/36 FAMILY

(an autostart utility for HP 9826/36 computers)

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

START\_UP is an ideal autostart utility for speeding and controlling the access to HP 9826/36 application programs. START\_UP forces the setting of the real time clock through a highly simplified procedure: by displaying the setting in hours/minutes/seconds and month/day/year that the computer was last operating and then asking for update of only the incorrect values. START\_UP then speeds and simplifies the selection of the desired application program by finding the catalog of the disk, and displaying the program names on the screen. The operator then uses the knob to move the cursor to the desired program and presses the CONTINUE key to select and run the program automatically. START\_UP may be included on each applications program disk to enhance operation in areas such as computer-aided-test where programs are normally run by non-programmers and real time clock data is needed for inclusion in test records.

Retail Price: \$200

Company Name: AUTOMATED TECHNOLOGY ASSOCIATES

Contacts: TOM PEARSON

Address:

P.O. BOX 19737

INDIANAPOLIS, INDIANA 46219

Telephone:

(317) 842-9488

SYSTEM REQUIREMENTS				
Computer Model: HP 9826/36 FAMILY	Peripherals:			
Memory:				
Operating System:				
Other Software:				
<del>.</del>				
CUSTOMER SUPPORT				
Geographic Area Supported:				
☑ U.S. (all regions) ☐ Mexico   ☐ East ☐ Latin America (all)   ☐ South ☐   ☐ Midwest ☐	prope (all)			
U west U U 5	Dutti Affica			
Support Services Available:				
☼ phone-in support ☼ on-site consulting* ☼ on-site systems	□ remote dial-in engineers*                            □ program modification *			
Additional Support Information and Pricing: *On-site support and program modifications provided on a Time and Materials basis. Contact ATA for quote.  CUSTOMER TRAINING/DOCUMENTATION				
Training Available:	Price:			
Documentation Available: English Language Instruction Manual	Price: Included with software			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: DA	ATE OF FIRST INSTALLATION:			
ADDITIONAL INFORMATION				
ATA provides HP+ Software Products, Consul range of Computer-Aided-Test (CAT) and Gradevelopers and consultants are engineers, with years of practical experience in the effective CAT solutions to the quality and manufacturing industry. This insures a ful and effective, systems solutions for your	phics applications. ATA software scientists, and senior technicians design and implementation of cost productivity problems of the lunderstanding of your requirements			
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### **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 51.21026

**Expiration Date:** 

Product Name:

Mainframe(s): HP 9826, 9836

SCREENDUMP

HP 1000 FAMILY

(HP 8566/68 Spectrum Analyzer screen-to-hardcopy utility) HP 9835, 9845

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

SCREENDUMP is an invaluable aid for rapid documentation and communication of the test results obtained with the powerful HP 8566 and 8568 Spectrum Analyzers. Hard copy of those critical screen displays are just as important to the ready understanding of your test reports and documentation as the screen display itself is to the user of the Spectrum Analyzer. SCREENDUMP provides a friendly utility for use with the Spectrum Analyzer and an intelligent controller to dump the full contents of the Spectrum Analyzer screen to any supported graphics peripheral device such as pen plotters, or the controller screen. (Dot matrix printers may be accessed from the HP 9835 with the binary plotting package.) The hard copy includes all labels, cursor positioning, and all graphics displayed on the screen at the time SCREENDUMP is invoked. The hard copy can be the full size of the dump device and uses the full resolution of the Spectrum Analyzer screen.

This SCREENDUMP subroutine module may be linked to the user's automated test program by passing simple parameters such as the address of the Spectrum Analyzer and of the dump device to provide automatic hard copy for test documentation.

Retail Price: \$500 with English-language Instruction Manual

(\$50 for Instruction Manual only)

Company Name: AUTOMATED TECHNOLOGY ASSOCIATES

Contacts: TOM PEARSON

Address:

P.O. BOX 19737

INDIANAPOLIS, INDIANA 46219

Telephone:

(317) 842-9488

SYSTEM REQUIRE	MENTS			
Computer Model: H	IP 9826/36,9835/45 or IP 1000 FAMILY	Per	ipherals:	Any supported Graphics Peripherals
Memory:				, , ,
Operating System:				
Other Software: GRA Bin	PHICS/1000-II for HP 10 ary Plotting Package fo	00 FAMILY r HP 9835 only.		
CUSTOMER SUPP	ORT			
Geographic Area Su	pported:			
U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Far East (all)
Support Services Av				
	X☐ mail-in supp y*	ort ems engineers*		remote dial-in program modification *
Additional Support Information and Pricing: *On-site support and program modifications provided on a Time and Materials basis. Contact ATA for quote.				
CUSTOMER TRAIN	NING/DOCUMENTATION			
Training Available:			Pr	ice:
Documentation Avai	lable: English Language Instruction Manual		Pr	ice: Included with software
Documentation Avai	lable in other languages: No			(\$50 Manual only)
NUMBER OF INST	ALLATIONS:	DATE OF FIRST IN	ISTALLAT	TION:
range of Comput developers and with years of p effective CAT s manufacturing i	DRMATION '+ Software Products, Co eer-Aided-Test (CAT) and consultants are enginee eractical experience in olutions to the quality ndustry. This insures a systems solutions for y	Graphics applicans, scientists, and in the design and in and productivity full understand	ations. and seni mplement proble ing of y	ATA software ior technicians tation of cost ems of the

### RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.



Application Code:

51.22001

Mainframe(s) 9845B/C, 9835A/B Program Title

IBM Flexible Disc Utilities

### **Program Description**

This program provides compatability between IBM 3740-formatted flexible discs (diskettes) and the format used by the HP9895A Flexible Disc Drive. With this program you can:

- transfer 3740 formatted files (Data Sets) to HP formatted files and vice versa,
- display an IBM catalog,
- copy one IBM disc to another,
- rename, create and purge IBM files,
- initialize discs using the standard IBM 3740 format.

The program can access HP double sided as well as single sided media.

Here is a brief listing of the programs:

### **DCPAKG**

This program gives you the capability of accessing IBM 3740 formatted discs.

### **KEYDEF**

This program contains the Special Function Key definitions for the DCPAKG program. The DCPAKG program calls and loads this program as part of its startup procedure.

### **IPRINT**

This is a subprogram that allows you to print data directly to an IBM 3740 formatted disc.

#### IREAD

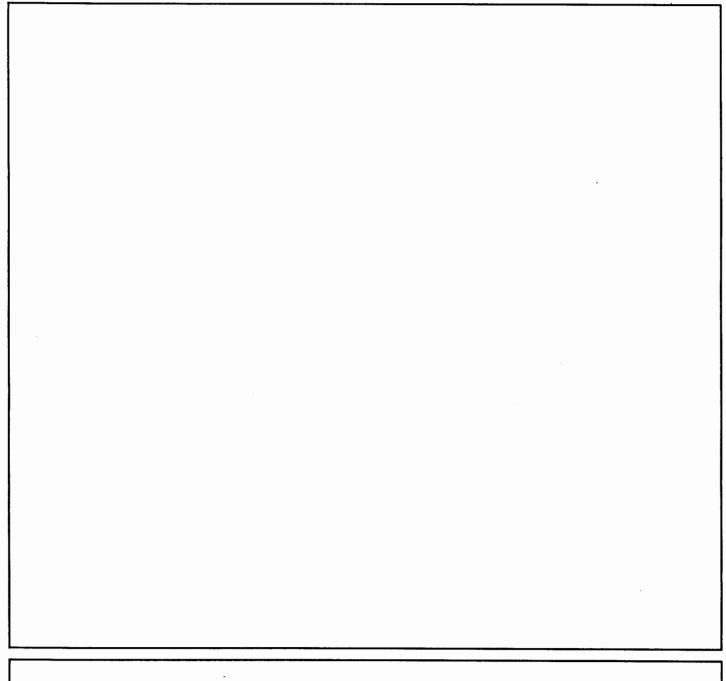
Allows you to read data directly from an IBM 3740 disc.

#### BINA45

This binary routine is used with DCPAKG, IPRINT and IREAD. DCPAKG automatically loads the binary, but you must load it with IPRINT or IREAD.

Data transferred by these routines must be string data (data consisting of ASCII characters stored in a series fashion designated by a string variable). IBM data is translated into ASCII characters and stored in a 128-character string. This string is then processed depending upon the key function you have selected. This data transfer method allows you to specify the data format and data delimiters.

This pack consists of a program tape cartridge (09845-10744 or 09835-15234) and a Users Manual (09845-10741 or 09835-15231).



### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B/C Opt. 150 & 250

Price:

9835A

**\$500**.

**\$500**.

HP Software Part Number:

09845-10740

09835-15230

**Memory Options:** 

201

ROMs: Opt. 313 Mass Storage

98331A Mass Storage

Peripherals:

9895 Flexible Disc Drive

9895 Flexible Disc Drive

98034A HP-IB Interface

98034A HP-IB Interface

Comments:



Application Code:

51.22002

Mainframe(s) 9845B/C, 9835A/B

Program Title

Hard Disc Utilities

### **Program Description**

These seven programs help you to use a high performance disc system (HP7906, 7910, 7920 or 7925) with your HP 9835 or HP 9845 Desktop Computer. They provide the following capabilities:

### **DDUP**

Creates a duplicate (backup) copy of an onginal disc as long as the duplicate is of a compatible media type.

#### **CMPARE**

Verifies that the data on a backup disc is an exact duplicate of the original disc. Every track that has non-matching data is listed.

### **NEWVER**

Verifies that a media is in operational condition. The program scans for defective and incorrectly marked tracks. An optional "pattern test" may be used to identify marginally acceptable tracks.

#### **SPACE**

Determines the size of the largest single block as well as the total space that is available on a disc.

### **PURGAL**

Lets you erase the directory and all information from a disc thereby avoiding a lengthy initialization process.

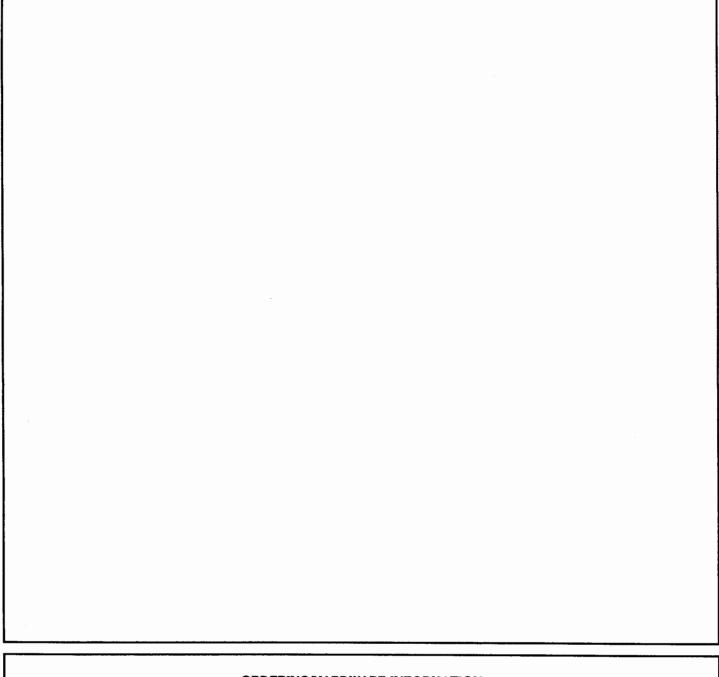
#### DIRECT

Enables you to copy a disc's spare directory over its main directory in the case of a disc failure.

#### FCODY

Lets you selectively copy, purge, protect and re-name files. Files can be completely copied to a destination mass storage device or selectively copied to a number of different devices.

This package consists of a program tape cartridge (09845-10016, 09835-15204 and a User Manual (09835-15201, 09835-15201.



### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B/C

**Price:** \$100.

HP Software Part Number: 09845-10070

Memory Options: minimum

\$100

09835-15200

minimum

9835A/B

ROMs: 98413A Mass Storage

98331B Mass Storage

7906M Peripherals:

7920M 7925M 7906M,H 7920M,H

7925M,H

7910 (w/98034A)

Comments:



Application Code:

51.22003

Mainframe(s) 9845B/C, 9835A/B Program Title

Flexible Disc Utilities

### **Program Description**

These utility programs are designed to be used with the HP 9835 and HP 9845 Desktop Computers that use the HP9885M/S or 9895A Disc Drives as their mass storage device. They are designed to give you a more complete solution to mass storage problems.

Here is a brief list of the programs and their capabilities:

#### SPACE

Returns the total amount of space available on an HP formatted dsic as well as the size of the largest available space.

### **PURGEF**

Erases the disc's directory leaving the disc essentially empty and initialized (HP formatted discs only). Takes less than 5 seconds instead of the 8-10 minutes required for the INITIALIZE command.

#### **SPAREF**

Copies an HP formatted disc's spare directory over the main directory. Used when the computer warns you of a "Spare Directory Access" when trying to access a disc (an indication of main directory failure).

### **FCOPY**

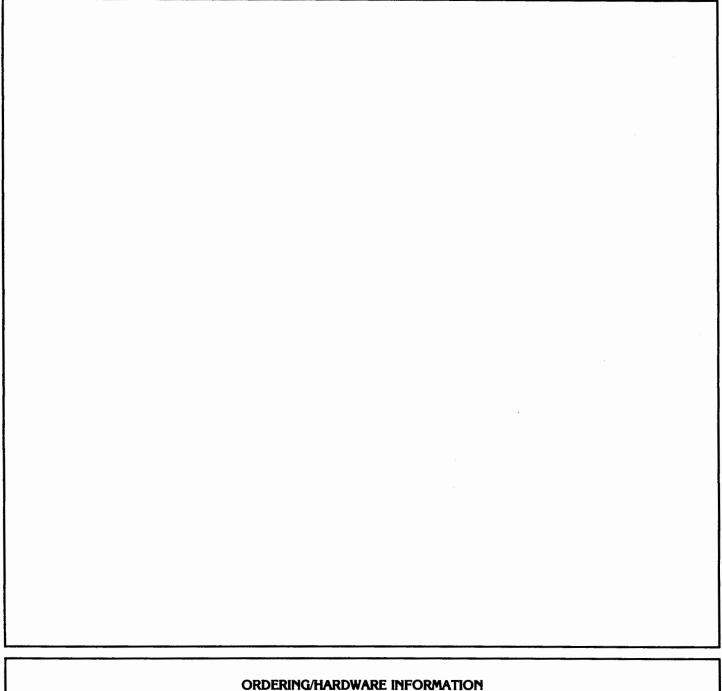
Lets you selectively copy, purge, protect or rename HP formatted files. Files can be copied to a destination mass storage device or selectively copied to a number of different devices.

### FLXDUP

Lets you duplicate HP formatted data.

To insure data integrity, you can use the CHECKREAD feature of this program. This causes the computer to read everything that is written to a mass storage device to make sure it has been written correctly.

This pack consists of a program tape cartridge (09835-15224 for the 9835, 09845-10017 for the 9845) and a Users Manual (09835-15221).



9845B/C Opt. 150 & 250 Mainframe(s):

Price:

\$100

9835A/B \$100

HP Software Part Number: 09845-10090

09835-15220

**Memory Options:** 

201

ROMs: 98413A Mass Storage

98313A Mass Storage

Peripherals:

9885M/S or 9895A Disc Drive

HP-IB Interface Cable (98034A)

Comments:



Application Code:

51.22004

Mainframe(s) HP 9845B/C

Program Title

9111A Graphics Tablet Utilities

### **Program Description**

The 9111A Graphics Input Tablet from Hewlett-Packard enables you to interact with the display on the HP 9845B/C Desktop Computers. Through the 9111A, you can draw on the CRT, trace graphics documents or pick from a customized menu.

To help lay the groundwork for the many interactive graphics applications possible on the HP 9845B/C, Hewlett-Packard has developed three software utilities for the Graphics Tablet – drawing, graphics editor and menuing. The software can be used as generalized application programs or as tools in creating acustomized application.

**Drawing Program** 

The 9111A acts as a friendly interface to the computer. Through the 9111A's Drawing Program, you can perform complete graphics system routines—input, edit and output of data—all from the graphics tablet. With the Drawing Program, you can combine straight lines, circles, arcs, rectangles, freehand lines and text to create a drawing. You can then store and retrieve the drawing, then plot it on the plotter. The Drawing Program can be used to create and plot graphics for overhead slides, to define elements for the Graphics Editor or to create your own menu.

### **Graphics Editor**

The Graphics Editor Program allows you to pick elements from your menu then place them in the drawing. You can then scale, rotate, move or delete those elements. You can also rescale or pan across your entire drawing. With the Graphics Editor, you can draw and plot schematics, organization charts, program flow charts, PERT charts, floor layouts, or any graphic composed of elements.

### Menu Driver

Through the 9111A's Menu Driver Program, you can enter data or control an entire program with the mere press of the stylus on the platen's user-defined menu areas. The program includes all tablet I/O and the calculations with X,Y coordinates to identify an item picked from the menu you created. A single stroke can enter a command, such as "delete", or an enter phrase, "quantity of units back-ordered". In addition to 16 softkeys on the platen, the Menu Driver provides the coding necessary for menu selection from the entire tablet.

This software package includes the following:

- pre-plotted menus (drawing, graphics editor)
- two program tapes
- user's instruction manual and documentation

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9845B,Opt.100/9845C, Opt. 150,250

\$500 Price:

**HP Software Part Number:** 

88100A (9845B), 88101A (9845C)

**Memory Options:** 187K bytes, Graphics

Display Subsystem (Opt. 311, 700)

ROMs:

Peripherals:

9111A Graphics Tablet Eight-Pen Plotter

Comments:



Application Code:

51.22005

Mainframe(s) 9835/9845B/C

Program Title

**Utility Library** 

### **Program Description**

The Utility Library is a collection of software which provides the tools for solving many common problems and computations. It includes examples on how to sort numeric arrays, how to solve simultaneous equations, do family regressions and many other common techniques used in business and engineering applications. By adapting these subprograms to a particular program the user can save hours of programming time.

This set of utilities will provide you with useful programming tools plus it will also familiarize you with

the features and capabilities of the 9835 and 9845.

The following utilities are included in both the 9835 and the 9845 Utility Library:

SORTING:

Fast sort of a Numeric Vector

Minimal Storage Sort of Numeric Vector

Fast Sort of Numeric Array

Minimal Storage Sort of a Numeric Array

Fast Sort of a String Vector

Minimal Storage Sort of a String Vector

NUMERIC ANALYSIS SECTION:

Polynomial Rootfinder

**Bisection Rootfinder** 

Numerical Interpolation

Numerical Integration

Simultaneous Equations

INFORMATION MANAGEMENT SECTION:

Backup Program

File Initialization

File Access

File Structures

FINANCIAL SECTION:

Loan Amortization

Savings Account/Compound Interest Analyzer

Household Budget Analyzer

STATISTICAL SEČTION:

**Array Statistics** 

Family Regression

PROGRAMMING SECTION:

Copy File

String Search

String Search and Replace

Data File Dump

Program List

File Comparison

Key File Conversion

DISPLAY FEATURES SECTION:

Screen Addressing Block Lettering

The following utilities are included in the library for the 9845 only:

STATISTICAL SECTION:

Pie Charts Bar Graphs

GRAPHICS SECTION:

**Block Lettering** 

Simple Function Plot

Iterative Parameter Plot

Picture Construction & Entity Creation

Package includes:

-Two master cartridges

-User's instruction manual

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9835A/B

9845B/C Opt. 311, Opt. 700

Price:

\$300

\$500

HP Software Part Number:

09835-10000

09845-10200

**Memory Options:** 

ROMs:

Peripherals: external printer

Comments:



Application	Code:	
	51 22006	

Mainframe(s) 9835/9845B/C

Program Title

85 to 9835/9845 Data Utilities

### **Program Description**

The 85 to 9835/9845 Data Utilities are designed to help transfer data recorded on the HP-85 to the 9835 or 9845. Because the storage format for the 85 is different from that on the 35 or 45, the information on the 85 tapes must be decoded before it can be useable on the 35/45.

The 85 uses a form of Standard Interchange Format(SIF) to write down data on its tapes. Once the data has been decoded with the help of the 85 to 35/45 data utilities, SIF binaries on the 35/45 can be used to read the tapes

This set of utilities does not provide an exact solution for each programmer, but it does provide the tools needed to solve the problem. You may need to write a unique application program using these utilities and tailoring them to your particular problem. The package includes examples which can show you how to solve the problem and the utilities necessary to convert many different types of data.

The process for converting data from the 85 to the 35/45 format requires essentially two steps: first the SIF binary reads the tape recorded on the 85 and then the dump utility assembles it to do the format conversion.

This set of utilities is designed for converting data recorded on the 85 but will not convert programs. They are designed for only one way conversions from the 85 to the 35 or 45. Package includes:

- -Program cartridge
- -User's instruction manual

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	ORDERING/HARDWARE		
		INFORMATION	
Mainframe(s):	9835A/B		
Mainframe(s):	9835A/B	INFORMATION 9845B/C	
Price:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number:	9835A/B \$250	INFORMATION 9845B/C	
Price:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options: ROMs:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options: ROMs:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options: ROMs:	9835A/B \$250	INFORMATION 9845B/C \$250	
Price: HP Software Part Number: Memory Options: ROMs:	9835A/B \$250	INFORMATION 9845B/C \$250	





Application Code:

51.22007

Mainframe(s) 9845B/C

Program Title

**Graphics Utilities** 

### **Program Description**

The Graphic Utilities package will help you present computer data in graphic form, a very efficient and readily understandable method for presenting information. The package contains fifty adaptable routines for 2-D figure construction and manipulation on the HP-9845. These documented routines and subprograms can be incorporated into your own application program, thereby reducing software development time and minimizing programming bugs.

This pack will help you create, manipulate, store, and display a wide range of 2-dimensional figures for use in your graphics applications. It includes subprograms for creating and transforming graphics images along with graphics input routines and routines to output to selected external graphics devices. Both single and multi-object figures can be developed for a variety of 2-D applications.

The pack includes a user's manual that explains each subprogram in detail. Variable lists, references and annotated listings provide the information you need to easily use and modify any program.

The graphics utilities package is designed to be used with a hierarchical data base that contains five interrelated matrices. This data base supports single and multiple object construction.

Included in the package are routines for drawing line segments, circles and arcs. These figures can be drawn by entering the desired X-Y coordinates manually or by positioning the System 45's CRT cursor.

Rotating, scaling and translating figures can be accomplished by using the transformation routines in the graphics utilities package. The storage and display routines allow you to store and recall graphics.

A routine for character generation allows you to use different character types for figure annotation. Stick, script, Roman and Gothic character types are included in the routine. Character size is user programmable.

The pack also includes routines for combining previously constructed and stored figures to generate a new figure.

In addition to the 2-D construction utilities, the package includes several auxiliary utility routines. A binary program implements a graphics "dump" from the CRT to an HP dot matrix printer. A subprogram permits alphanumeric prompts and user input responses while the CRT is in graphics display mode. The package also includes a "comment stripper" routine that removes extraneous program comments, thereby compacting the program and using less storage space.

Package includes: -two program tapes -instruction manual wit	h documentation
	ORDERING/HARDWARE INFORMATION
Mainframe(s): Price: HP Software Part Number: Memory Options:	9845B Opt. 150 \$500 09845-10050
ROMs: Peripherals:	

Contact your local HP Sales Office for additional information

Comments:



Application Code:

51.22008

Mainframe(s) 9845B/C Program Title

3-D Graphic Utilities

### **Program Description**

To help develop your own 3-D graphics software, Hewlett-Packard now offers the Three-Dimensional Graphics Utilities pack. By using these documented routines and subprograms you can reduce your software development time and minimize programming bugs.

This pack provides subprograms for input, manipulation, viewing and output of 3-D objects. Included are subprograms that use highly advanced techniques such as hidden surface removal and polygon clipping. Following are brief descriptions of the programs and subprograms:

• Entering 3-D Data — two methods of input are provided by the utilities. These are "manual" input and "digitizer" input. The manual method allows you to enter the precise values for the X,Y,Z coordinate triplets of a 3-D object via the alphanumeric keyboard. The graphics primitives for manual entry include line segments, arcs and circles.

The second method requires the use of a two-dimensional digitizer – HP's 9874A, to enter an object from a standard mechanical drawing. Three orthogonal views of the object are needed.

 Manipulating and Viewing 3-D Objects — Once the image information has been stored into the data base, the transformation subprogram can be used to translate, rotate or scale the image.

The viewing subprograms allow you to choose the point from which you wish to view a figure. The 3-D scene is then clipped before it is displayed, since not all surfaces of an object may lie within the viewing pyramid.

 Displaying 3-D Objects — Objects may be displayed as wireframes as shown in Figure 1 or with hidden surfaces removed. See Figures 2. Hidden surface removal subprograms utilize complex techniques to allow the user to display "solid" objects.

Also provided are storage subprograms that allow you to save and recall particular views of an object. Other subprograms can be used to annotate display for hard copy.

The 3-D Graphic Utilities software pack includes two program tapes and a user's instruction manual with documentation.

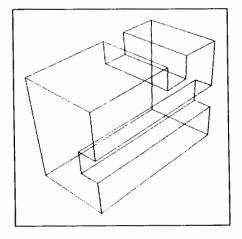


Figure 1.

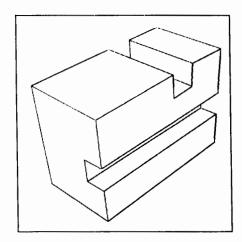


Figure 2.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B,Opt.150/9845C,Opt. 150,250

Price: \$1000.

HP Software Part Number: 09845-10060 (HP 9845B) 09845-10080 (HP 9845C)

Memory Options: requires 187K bytes

Graphics Display Subsystem

(Opt. 311, Opt. 700) required for HP9845B

ROMs: None required.

Peripherals:

Comments:



Application Code:

51.22009

Mainframe(s) **9845C** 

Program Title

**Advanced Graphics Utilities** 

### **Program Description**

The advanced graphics utilities package is designed for programmers who are familiar with graphics programming and want to learn more advanced graphics techniques and applications. The pack focuses on the use of color in computer graphics.

The package was deliberately designed to include a variety of graphics applications and techniques. It demonstrates how to convert data into pictographs and maps, how to use color to indicate critical states of operation and how to manipulate 3-D graphics.

One tape contains System 45C utilities which provide a set of programming tools for color input and output. The input utilities consist of an object generator, three color palette schemes, two "Z axis" programs, one binary program and a binary driver allowing rubberbanding. The binary program along with other input utilities, grid snapping and inking are designed to be used with the light pen.

The color output routines consist of four programs: an object return generator, a Z-axis interpolate responsible for generating a z value's color as set up by z axis programs, use of color in hidden surface removal and a vector transfer which provides color hard copy on the 9872 plotter using the Spectrum Graphics kit.

One of the six application subprograms demonstrates an application of graphics in management. The example uses pictographs to compare energy production in the United States, Europe and Japan. The size of the symbol for oil indicates comparative amounts. The tutorial section plus the user's manual show how to change symbols, fill color and scaling.

The other tape contains a main program and six example application subprograms. There is a tutorial section on each of the graphics applications, giving you the opportunity to examine the code, make changes and then view the example again once the changes are incorporated.

The mapping application in the pack displays use of color in mapping inter-related data. The example shows the relationships between climate, rainfall and vegetation in Europe. Each data set is plotted into an individual memory plane. The data not needed is converted to the color of the CRT background so that it is effectively removed from the screen. For example, when comparing rainfall and vegetation, climate data would not show on the screen. You can experiment with changing the colors assigned in the memory statements or changing fill textures.

The stress analysis example (see Figure 1) uses the results of a subprogram to determine stresses on a beam bridge. The range of stress is plotted in color. You can then use the light pen as an interactive input device to position a load over a joint for problem solving. The example allows you to change the color range and see the results of the changes made.

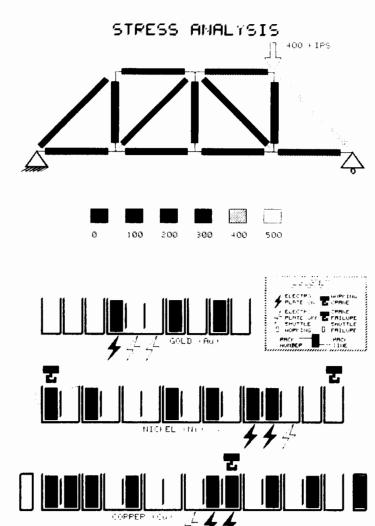
Another application subprogram demonstrates how graphics can be used in Integrated Circuit design. In this example the CRT has four areas: a work area, an operator prompt area, a viewing area and menu area. You can experiment with the programming techniques by repositioning the work, viewing and prompt areas or changing color assignments.

In the process monitoring example (see Figure 2), system status information is graphically displayed. Color can differentiate between objects, or normal and critical states of operation. The example shows the process of electroplating printed circuit(P.C.) boards, using color and symbols to indicate various stages and processes in P.C. manufacturing. It allows you to experiment with simulated motion by redrawing objects.

The architectural plot plan is an example of three dimensional graphics using wireframe figures. The plot plan consists of land, buildings, and their sites. The tutorial section explains techniques used for creating a graphical data base including the coordinates of objects which can be manipulated for 3-D viewpoints needed. You can then enter your own objects in the graphical data base.

Package includes: -two master tapes -user's manual

Figure 1



### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845C

Price: \$230

HP Software Part Number: 09845-10230

**Memory Options:** 

Figure 2

ROMs:

Peripherals: 9874,9885M

Comments:



Application Code:

51,22010

Mainframe(s) HP 9845B

Program Title

**Utility Library** 

### **Program Description**

The Utility LIbrary II software package is a collection of general-purpose routines designed for use in a wide range of applications. This pack when used with Hewlett-Packard's 9845B Desktop Computer allows the programmer to quickly incorporate the pack's documented routines and subprograms into his own application program.

This library contains the following six sections:

- Documentation Programs includes a cross-reference program, list formatting program and search program. These programs are useful in helping a user document and debug his own programs.
- Internal Thermal Printer Enhancements provides programs which make internal thermal printer easier to use.
- Base Conversion Routines these routines convert numbers from Base 10 to any other base, or vice-versa.
- Mass Storage Programs provides useful tools for managing your tape cartridges and floppy discs.
   Includes file management, flexible disc to tape back-ups, flexible disc restoration from tapes, tape duplication and flexible disc duplication.
- I/O Card Setup and Status provides useful tools for testing the status of any interface card and setting up the 98035 and 98036 cards with fairly common configurations.
- Menu Selector with this program, you can input a string of selections to the system's CRT screen in tabular form. A subroutine within the program provides an easy and interactive way of selecting between several choices in a menu.

The Utility Library II Package includes:

- A manual containing operating instructions and documentation.
- A pre-recorded tape cartridge containing the software.

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	ORDERING/HARDWARE INFORMATION
M-1-6	UD 09/45D/C all models
maintrame(s):	The yourder, all moders
Price:	HP 9845B/C, all models \$500.00
HP Software Part Number:	09845, 10150
Memory Options:	Minimum memory required
• •	
	I
ROMs:	None required
ROMs: Peripherals:	

Contact your local HP Sales Office for additional information

Comments:



Application Code:

51.22011

Mainframe(s) HP 9845B/C Program Title

Forms Utility

### **Program Description**

Hewlett-Packard's Forms Utility software pack enables you to create custom-made forms, update information on them, store them for later retrieval and use them in your own programs for data entry and review.

This software pack consists of two modules:

• The BUILDFORM module allows you to design your own form directly on the HP 9845's CRT. YOur form can be up to 50 lines deep and feature video highlighting. Field lengths can be up to 80 characters. Tabs can be set to duplicate those of a manual form. See Figure 1 for a sample form created existing programs or write new programs that use this new form for display and updating. USEFORM is a subprogram that is a general-purpose form-filling routine.

A unique feature of this pack is that the Special Function Keys are defined directly on the CRT. This software package includes:

- program tape cartridge
- user instruction manual

Tab Order You specify the order in which you want to update the form. **Dashed Lines** Can be used to place emphasis or call attention when the form is printed. ORIGIN: DATE: MT: MSG #: 4 ST: FORT COLLINS DESKTOP COMPUTER DIVISION 3400 East Halmony Road Fort Collins Colorado 80521 SHIP TO: NUMBER ORDER NUMBER SECTION 4/F: CUST ORDER NO: GOV CONTRACT NO: 30**LD TO:** CUST ORDER NO GOY CONTRACT NO HP GSA HP PURCH HP QUOTE NO CT W-CR ENG TRO RATING REG DATE DOT-MEG DOT-REG DOT-SO CUST NO TERMS FAST P coc 2 MAN NO PTL DD 250 SHIP VIA INSTRUCTIONS SPECIAL INSTRUCTIONS: SHIP DATE METHOD CARRIER FRE COD CHG PARTIAL NO PROD NO DESCRIPTION PR OTY REO ENT NO ORD DATE ACK AGE: HP ORDER UMBER: ART SYST**EM-**-SHIPPING OPDER Line Drawing Variable Field Placement Two different line widths With the System 45B's addressable are available. cursor, you can position fields and lines anywhere you want.

Figure 1. Shipping forms such as this can be created with the Forms Utility pack.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9845B/C, all models

**Price:** 09845-10170

HP Software Part Number: Minimum memory

Memory Options:

None required

ROMs:

None required

Peripherals:

Comments:

Application Code: 51.22012

Mainframe(s) 9845B/C

Program Title

QUERY/45 Data Base Management

### **Program Description**

QUERY/45 is the highly interactive inquiry software provided for Desktop Data Base Management on the HP 9845. Written in HP Enhanced BASIC, it gives you easy access to IMAGE/45 data bases. It can also help you define new data bases and modify old ones. It can operate in either a prompted mode (with HELP files available) or in a formal command mode which circumvents the user prompts.

QUERY/45 consists of six main program modules: FRAMEWORK, DEFINE, SHOW, SEARCH,

UPDATE and FORMS:

**FRAMEWORK** is the path connecting the modules. It included CONFIGURE SYSTEM routines, a RUN USER PROGRAM facility and the FORMAL COMMAND MODE. CONFIGURE SYSTEM includes data security and password routines. RUN USER PROGRAM lets you use QUERY/45 as a front-end to your own application programs. And FORMAL COMMAND MODE lets you bypass the prompting screens.

**DEFINE** lets you define a data base while being prompted from the screen. It also allows new data

types, synonyms and range checking.

SHOW provides visual information about the structure and definition of a data base. With it, you

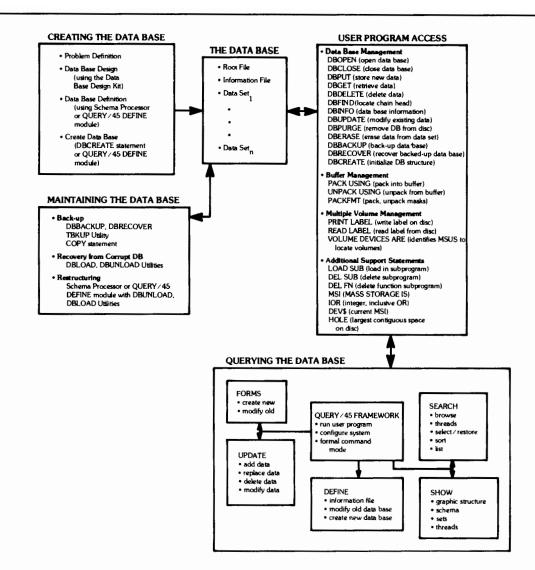
can get a printed graphic representation or schema text listing.

**SEARCH** enables a sophisticated, multi-criteria search selection plus a more primitive selection that allows you to "browse" through a particular data set. After your data has been found it can be updated, sorted and printed out. Partial values, computed values, threading and multiple level searches are available.

UPDATE lets you add, delete, modify or replace data. Includes key item updating.

FORMS lets you create new forms and modify old ones that are used with the UPDATE module (ADD and MODIFY). Forms are drawn using the character drawing set resident in the HP 9845.

QUERY/45 is not a multiple terminal program. It will only operate using the HP 9845 keyboard. It can be used as a debugging tool as well as a replacement for many user application programs. Maximum data base size = 268Mbyte (32 data sets per data base, 32 767 records per data set, 256 bytes per record).



Package includes: Three (3) QUERY/45 Program Tapes (09845-14754, 55, 56), QUERY/45 Users' Guide (09845-91056), a Data Base Design Kit (09845-91057), the Library Sample Data Base (11141-10666) and a Product Binder (9282-0868).

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 175 & 9845B/C Opt. 275, 280 or equivalent\*

Price: \$400.

HP Software Part Number: 98428A

**Memory Options:** 

**ROMs:** 98429A IMAGE/45 (included in 9845B/C Opt. 280)

Peripherals: Built-in thermal printer (Opt. 560 or 060) req'd

Flexible Disc = 9885M/S or 9895

Hard Disc = 7906M,H or (2) 7920M,H or (2) 7925M,H, 9138

= 7908P, 7911P, 7912P disc/tape drive

**Comments:** Complete DBMS package ordered under Prod. No. 98430A.

Application Code:
51,22013
51.22015

Mainframe(s) 9845B/C

Program Title

**DBM Statistics Linkage** 

### **Program Description**

This program consists of two programs: DBM-to-Statistics Linkage and Statistics-to-DBM Linkage. Both provide an extension to the QUERY/45 DBM programs and enable the transfer of data to and from a data base to the programs in the HP Statistics Library. You can use QUERY/45 to find data within the data base upon which you want to perform statistical calculations. Then, by using QUERY/45's Run User Program, you can format the data into the HP Statistics data structure for processing. Alternatively, the Statistics-to-DBM Program can be run to store statistical data in a QUERY/45 data base.

### **DBM-to-Statistics**

With the DBM-to-Statistics (DBSTAT) program you use the SEARCH module of QUERY/45 to find the data entries and use DBSTAT to select the items whose values are to be placed in a statistics file. Codes, names and other character item types are transferred by having a numeric value assigned to each unique occurance of a string within an item. You can have a maximum of 50 unique strings. Uniqueness is checked by evaluating the first 80 characters of each expression (not counting blanks). A table of the numeric mappings is printed at the end of the data transfer. Data items stored as SHORT or INTEGER are converted and stored as REAL values. If the number of items selected, multiplied by the size of the search result, cannot exceed 1500. If it does, you must re-select the items

### Statistics-to-DBM

Statistics-to-DBM (STATDB) program allows you to use the variables in a statistics file (created by any of the HP Statistics Software Library packs) to fill numeric items of a data set in a data base. The REAL numbers coming from the statistics file are converted using the ranges set up for each data item into either INTEGER, SHORT or REAL, depending on the data item type. Only numeric items can be filled with the data from the statistics file.

This software pack consists of a program tape cartridge (09845-14834) and a User Instruction Manual (09845-14831).

\* 9845B/C with 128KB RAM, thermal printer, Mass Storage ROM, Advanced Programming ROM and QUERY/45 software. ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B Opt. 175 and 9845B/C Opt. 275, 280 or equivalent\*

**Price:** \$250

HP Software Part Number: 09845-14830

**Memory Options:** 

**ROMs:** 98428A QUERY/45

98429A IMAGE/45 (both included in 9845B/C Opt. 280)

Peripherals:

**Comments:** Hardware which supports QUERY/45 also supports DBM Statistics Linkage.

Application Code:

51.22014

Mainframe(s)
Series 200

Program Title

Series 200 BASIC Utilities Library

### **Program Description**

This set of programs is shipped with every Series 200 BASIC 2.0 language system. With these Utility programs, you can perform the following tasks:

- Backup an entire disc
- Backup selected files on your disc
- List files
- Generate a cross reference of variables used in a program
- Produce an extended directory catalog
- Repack a disc
- Allow for various INITIALIZE options
- Verify LIF format
- Adjust data file size
- Produce a formatted dump of disc contents
- Display contents of status registers for data files and interface cards
- Secure program files
- Display system configuration and ROM revision identification
- Recover from Error 1 on LOAD
- Play Startrek game
- Dump Graphics to HP 82905B Printer
- Return system information to a program

A Series 200 demo is also shipped with this pack. The pack is available under three part numbers:

09800-10300 (3½" disc media)

09800-10500 (5½" disc media, for external drive)

09800-10600 ( $5\frac{1}{4}$ " disc media, for internal drive)

These part numbers replace part number 09836-10000.

	ORDERING/HARDWARE INFORMATION		
Mainframe(s): Price:	Series 200 \$200.00		
HP Software Part Number: Memory Options:	09800-10300, 09800-10500, 09800-10600 Minimum Configuration		
Language/ROMs:	BASIC 2.0		
Peripherals:			

Contact your local HP Sales Office for additional information

Comments:



## HEWLETT-PACKARD SOFTWARE SUMMARY



Application Code:

51.22015

Mainframe(s) 9845B/C

Program Title

7908/9845B/C Integrated Backup Utilities

#### **Program Description**

The 7908 Backup Utility provides the 9845B/C user with the only means of reliably transfering data betwen a 7908 Disc Drive and its integrated Tape Drive. It is an interactive (menu driven) program providing the capability to backup and restore the entire 7908 disc media, or individual files, at a rate of 2M bytes/minute. The backup and restore capabilities also function (at the same speed) between disc and tape drives contained in separate units, as long as they are connected on the same 98034B (HPIB) Interface.

In addition to the primary function of 7908 disc backup/restore, the program also provides the following capabilities: getting a catalog of a backup tape's contents; certifying tape cartridges (to provide an error-free magnetic media); and verifying that data on a tape, or the disc, is readable (contains no CRC errors). Help information concerning each funtion is also available from the program while it is running.

### ORDERING/HARDWARE INFORMATION

**Mainframe(s):** 98458 **Price:** \$100 9845B/C

HP Software Part Number: 09845-10840

Memory Options: 187K bytes R/W memory required

ROMs: 98413C Mass Storage required

Peripherals: 7908P required

Comments:

Contact your local HP Sales Office for additional information

## Software Supplier Product Summary

HP USE ONLY

I.D. Code: 10078

Application Code: 51.31001

Expiration Date:

Product Name:

Mainframe(s):

SEC85-A PROGRAM SECURITY SYSTEM

85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### PREVENT DUPLICATION OF PROGRAM TAPES

SOFTWARE SUPPLIERS CAN NOW PROTECT VALUABLE PROPIETARY SOFTWARE

SEC85 provides a considerably higher level of security than the "SECURE" command resident in the HP-85. Using SEC85, a software supplier can make tapes containing BASIC programs that cannot be successfully stored, copied, listed or edited. Even a copy made by reading physical records from one tape and writing physical records to another tape will not run.

Secured files may be copied to disc, but will not run unless the proper end-user's tape is in the tape drive. Each end-user's tape is assigned a serial number by the software supplier to prevent its use as a "key" tape for disc copies of other software secured using SEC85.

BASIC programs to be secured must leave roughly 1500 bytes of memory for SEC85 operation. Longer segments may be split up and "chained" or "called" as subprograms.

Retail Price:

\$1500.00

Company Name:

Contacts: FRANK KEY

STRUCTURED SOFTWARE SYSTEMS, INC.

Address: BOX 1072 - IRICK ROAD, MT. HOLLY, N.J. 08060

Telephone: **609-267-1616** 

SYSTEM REQUIRE	MENTS			
Computer Model:	HP 85	Peripheral	s: <b></b>	
Memory:				
Operating System:			:	
Other Software:				
CUSTOMER SUPP	ORT			
Geographic Area Su	pported:			
☐ Worldwide  X U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	☐ Latin America (all) . ☐		☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ Australia/N.Z.	
Support Services Av				
<ul><li>phone-in support</li><li>on-site consulting</li></ul>	X mail-in suppo □ on-site syste	ort ms engineers	☐ remote dial-in  ☑ program modification	
Additional Support Information and Pricing:				
CUSTOMER TRAIN	IING/DOCUMENTATION			
Training Available:	Not Necessary		Price:	
Documentation Available: User Operating Instructions Price:				
Documentation Available in other languages:				
NUMBER OF INST	ALLATIONS: 2	DATE OF FIRST INSTALL	ATION: February 1982	
ADDITIONAL INFO	DRMATION			
SEC85 is	supplied on a tape car	tridge.		
Delivery	: Stock			
RESPONSIBILITIES	·			
This software was d	eveloped by an independent softwa oftware and support services. HP is n			

endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

HP USE ONLY

I.D. Code:

Application Code: 52.11001

Expiration Date: 9/1/82

PRODUCT NAME

SCONS/1000 Source Control System

MAINFRAME(S)

**HP 1000** E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The Source Control System (SCONS/1000) provides the necessary tools for the efficient management of a dynamic collection of source files. The system alleviates the problems of organizing and maintaining source files during an active development project. SCONS/1000 provides the solution for any project requiring the continuing maintenance of source files. This includes, for example, program development, or technical publications.

SCONS/1000 includes the powerful DELTA/1000 program which computes the minimum difference between two files. DELTA/1000 is also sold separately.

#### **FEATURES**

- Maintains all revisions and releases of any number of files simultaneously.
- Forces controlled access to "released" software for changes.
- Each user may have a restricted set of possible commands.
- Provides sources for any previous release or revision.
- Easy to use by infrequent users.
- Allows organization of files on a per project basis.
- Access to source files is protected by used id and password on a per project basis.
- Projects may share common files. File owners can restrict access of projects which share the files.
- Only the differences between the old and new files are stored on disc.
- Optional automatic revision level updating.
- Optional automatic insertion of current data, time, and comments into file.
- Listing, compilation or user defined operations may be performed on all files or subsets of all files in SCONS/1000.
- Batch and interactive operating modes.
- SCONS/1000 internal files can be created on specified cartridges on a per project basis.

RETAIL PRICE:

\$5,000.00 (See Additional Information section for more pricing data.)

CONTACTS:

Chuck Nickerson

COMPANY NAME: Corporate Computer Systems, Inc.

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE: (201) 583-4422

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Models 40, 45	Peripherals:		
Memory: 28 page partition			
Operating System: RTE-IVB			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
■ Worldwide □ Canada □ Europe (all □ U.S. (all regions) □ Mexico □			
☐ East ☐ Latin America (all) ☐			
□ South □ □ □			
□ West □ □ South Afric			
Support Services Available:			
☑ phone-in support ☑ mail-in support	☐ remote dial-in		
☑ on-site consulting ☑ on-site systems engineers	program modification		
Additional Support Information and Pricing: 11600V Level 1 Sup			
11600T Level 2 Suj 11600Q Manual Up	pport \$100.00/month date Service \$ 3.00/month		
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: No training necessary.	Price:		
Documentation Available: 11600M SCONS/1000 Reference Ma	nual Price: \$8.00/copy		
,			
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 10 DATE OF	FIRST INSTALLATION:		
ADDITIONAL INFORMATION			
Ordering/Pricing Data:	•		
11600A SCONS/1000 Relocatable Binary License 11600R SCONS/1000 Right To Copy	\$ 5,000.00 \$ 2,500.00		
11600S SCONS/1000 Source License	\$12,500.00		
Media Options:			
-020 SCONS/1000 on mini cartridge	\$ 50.00		
-050 SCONS/1000 on 800 bpi mag tape -051 SCONS/1000 on 1600 bpi mag tape	N/C N/C		
	·		
RESPONSIBILITIES STATEMENT			

HP USE ONLY

I.D. Code:

Application Code: 52.11002

Expiration Date: 9/1/82

PRODUCT NAME

MAINFRAME(S)

DELTA/1000 File Difference Locator

**HP 1000** E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Delta/1000 is a versatile tool for the HP 1000 System. Delta's basic function is to locate the minimum differences between two FMGR files, but its applications are limited only by the user's imagination. For example, suppose you maintain text for documentation on your computer. By using Delta, you can detect all the changes between any two revisions of the document. Delta will even insert change characters to delimit differences.

Another application is in source file management. The question of what changes have been made to a program to produce a difference revision is easily answered by Delta/1000. Delta even finds applications in data collection. It can find differences in large data files from one data collection run to another. The differences are the minimum differences too. If one line of measurements is added to the middle of a file, only that line will be pointed out as being different. Delta/1000 is the key to many of your most difficult data management problems.

#### **FUNCTIONAL SPECIFICATIONS**

The Delta/1000 package is really two different programs: Delta and Undelta. The Delta program will take file A and file B and it will compute file C according to the following:

$$C = B - A$$

The difference is not just a simple difference either, but rather a minimum difference. If a series of lines (or characters) have been inserted or deleted in B and have not been inserted or deleted in A, then, and only then, will they be placed in C. The Delta program will "resynchronize" when it encounters differences.

The Undelta Program will take file C, add it to file A and give you back the original file B:

$$B = A + C$$

Optionally, Undelta will insert header and trailer strings around changes made in A when producing B. This feature enables user-written programs to detect the modifications in B for special processing.

RETAIL PRICE:

\$995.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

CONTACTS: Chuck Nickerson

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE: (201) 583-4422

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Models 40, 45 Peripherals:			
Memory: 28 page partition			
Operating System: RTE-IVB			
Other Software			
	and the second s		
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide			
Support Services Available:			
□ phone-in support □ mail-in support □ on-site consulting □ on-site systems engineers	☐ remote dial-in ☐ program modification		
Additional Support Information and Pricing:  11700V Level 1 Support \$20.00/month  11700T Level 2 Support \$70.00/month  11700Q Manual Update Service \$2.00/month			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: No training necessary	Price:		
Documentation Available: 11700M Delta/1000 Reference Manual Price: \$5.00/copy			
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 10 DATE OF FIRST INSTA	ALLATION:		
ADDITIONAL INFORMATION Ordering/Pricing Data:			
11700A         Delta/1000 Relocatable Binary License         \$ 995.00           11700S         Delta/1000 Source License         \$10,000.00			
Media Options:       -020       Delta/1000 on mini cartridge       \$ 50.00         -050       Delta/1000 on 800 bpi mag tape       N/C         -051       Delta/1000 on 1600 bpi mag tape       N/C			
RESPONSIBILITIES STATEMENT			

HP USE ONLY I.D. Code:

Application Code: 52.11003

Expiration Date: 9/1/82

PRODUCT NAME

MAINFRAME(S)

FBUG/1000 Source-Level FORTRAN Debug Package

HP 1000 E, F & L-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

FBUG/1000 is a new concept in FORTRAN program development for the HP 1000 System. FBUG allows FORTRAN debugging to be done in FORTRAN at the source code level, and not at the assembler language level with mixed listings and load maps. FBUG's conversational mode encourages the type of experimentation and interaction which leads to fast program check out.

#### FUNCTIONAL SPECIFICATIONS

FBUG/1000 contains two programs. The first, FTNDB, works with your HP FORTRAN compiler to compile source programs in "debug mode." FTNDB is invoked just like the FORTRAN compiler to produce relocatable and special module map files. The module map file contains all the necessary information to allow a second program in FBUG/1000 to understand your program under test.

The second program in FBUG is called FB. The FB module is an interactive program which follows your commands to debug the program under test. FB reads the load map produced by HP's LOADR program and the necessary module maps produced by FTNDB. With this information, FB allows you to dynamically insert and remove break points on any statement in your program under test. The statements are referenced by line numbers on the listings of the source program, not by absolute octal addresses.

In addition, FB allows you to display and alter variable values by referencing their names, not their locations. If you want to see the current value of a variable called IVAR, you can ask for IVAR without knowing where it is located in the program under test. FB even recognizes the scope of variables defined local to different program modules. If IVAR is defined in several different subprograms, then only the IVAR you want is displayed or altered.

FORTRAN program debugging and long term support of FORTRAN based packages in remote locations is dramatically simplified with FBUG. FBUG is the necessary compliment to all of your FORTRAN development.

RETAIL PRICE: \$995.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

CONTACTS: Chuck Nickerson

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE:

(201) 583-4422

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Peripherals:			
Memory: 16 page partition			
Operating System: RTE-II, III, IVB, RTE-XL			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
☑ Worldwide       □ Canada       □ Europe (all)         □ U.S. (all regions)       □ Mexico       □	□ Far East (all)		
□ East □ Latin America (all) □			
☐ Midwest ☐			
□ West □ □ South Africa	☐ Australia/N.Z.		
Support Services Available:			
☐ phone-in support ☐ mail-in support ☐ on-site consulting ☐ on-site systems engineers	☐ remote dial-in ☐ program modification		
Additional Support Information and Pricing:  12100V Level 1 Support \$20.00/month  12100T Level 2 Support \$70.00/month  12100Q Manual Update Service \$2.00/month			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: No training necessary	Price:		
Documentation Available: 12100M FBUG/1000 Reference Manual	Price: <b>\$5.00/copy</b>		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 38 DATE OF FIRST INSTAL	LATION:		
ADDITIONAL INFORMATION			
Ordering/Pricing Data: 12100A FBUG/1000 Relocatable Binary License \$ 995.00 12100S FBUG/1000 Source License \$6,000.00			
Media Options:			
-020 FBUG/1000 on mini cartridge \$ 50.00 -050 FBUG/1000 on 800 bpi mag tape N/C			
-051 FBUG/1000 on 1600 bpi mag tape N/C			
RESPONSIBILITIES STATEMENT  This software was developed by an independent software supplier for operation on HP comp	outer systems. The supplier is solely		

HP USE ONLY LD. Code:

Application Code: **52.11004** 

Expiration Date: 9/1/82

PRODUCT NAME TFORM/1000 Text Formatter

MAINFRAME(S) HP 1000 E, F, & L-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

TFORM/1000 (pronounced tee-form) is a text formatter for the HP 1000 System. TFORM/1000 permits the user to easily control the format of the document.

TFORM/1000 includes a rich command set to control page length, line length, margins, tabs, centering, left and right justification, word wrap-around, page numbering, hyphenation, headings, footings and much more. TFORM/1000 commands are easy to remember and simple to use. TFORM/1000 is easily mastered by your personnel.

With TFORM/1000, tabs can be left-justified, right-justified, or centered around any column you specify. A "wait" command is available for output to non-continuous forms. TFORM/1000 also contains a noprint option in case you only want to output a portion of your text.

TFORM/1000 allows the placement of a series of commands or text and commands in a special storage area called a register. TFORM/1000 has accessible registers to keep track of items much as page number, and a macro replacement command which allows a complex command to be called by a simple command. Macros allow TFORM/1000 to be customized to any application.

Since TFORM/1000 runs on a computer, it is able to do much more than a stand alone word processor. Just the ability for your computer to have access to the same document base as your word processing system is a very powerful feature. Mailing lists maintained on your computer system can be used to generate personalized letters. Letters can be sent to overdue accounts because the accounts receivable information and the word processing software exist in the same computer system. Programming and documenting on the computer enables programmers to quickly change manuals to reflect programming modifications. Programmer productivity is greatly increased as well as manual quality.

Personalized form letters can easily be generated using TFORM/1000.

RETAIL PRICE: \$4,000.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

CONTACTS:

Chuck Nickerson

675 Line Road

ADDRESS:

Aberdeen, NJ 07747

TELEPHONE:

(201) 583-4422

SYSTEM REQUIREMENTS	
Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Peripherals:	HP printer or Diablo,
Memory: 18 page partition	Qume, NEC printers
Operating System: RTE-II, III, IV, RTE-L, XL	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
☑ Worldwide       □ Canada       □ Europe (all)         □ U.S. (all regions)       □ Mexico       □	□ Far East (all) □
☐ East ☐ Latin America (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
☐ Midwest ☐ ☐	_
□ West □ □ South Africa	☐ Australia/N.Z.
Support Services Available:	
☐ phone-in support ☐ mail-in support ☐ on-site consulting ☐ on-site systems engineers	☐ remote dial-in ☐ program modification
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: 11200I TFORM/1000 Training Course at CCS, Aberdeen, NJ (on-site courses also available)	Price: \$400.00/person
Documentation Available: 11200M TFORM/1000 Reference Manual	Price: <b>\$15.00/copy</b>
.  Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 21 DATE OF FIRST INS	STALLATION:
ADDITIONAL INFORMATION	
Ordering/Pricing Data: 11200A TFORM/1000 Relocatable Binary License \$ 4,00	0.00
11200R TFORM/1000 Right To Copy \$ 2,00	0.00
11200S TFORM/1000 Source License \$10,00	0.00
Media Options: -020 TFORM/1000 on mini cartridges \$ 5	0.00
-050 TFORM/1000 on 800 bpi mag tape N	I/C
-051 TFORM/1000 on 1600 bpi mag tape N	N/C
RESPONSIBILITIES STATEMENT	
This software was developed by an independent software supplier for operation on HP	computer systems. The supplier is solely

responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.

HP USE ONLY

I.D. Code:

Application Code: 52.11005

Expiration Date: 9/1/82

PRODUCT NAME VEDIT/1000 Text Editor



MAINFRAME(S) HP 1000

E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

VEDIT/1000 (pronounced vee-edit) is CCS's powerful text editor for your HP 264X CRT Terminal. Designed for ease of use. VEDIT/1000 permits you to create new text files, edit old files, and optionally schedule TFORM, the text processing program and QFORM, the phototypesetter program.

VEDIT/1000 uses your CRT terminal's versatile capabilities including the softkeys, insert and delete characters keys, enter key and the cursor positioning keys. VEDIT/1000 provides full screen display so you can view nineteen lines of text at a time. In addition, the softkey functions are labeled at all times at the top of the CRT screen so it's easy to see which button to press for the task you want to perform.

Special functions of VEDIT/1000 allow you to go directly to any character string you have entered or find a specific line number in your text. Or, you can press one of the softkeys and scroll to the next nineteen lines of text. Fast Entry Mode allows you to type as fast as you can without having to wait for a program prompt.

It's easy to correct documents with VEDIT/1000, and you don't have to remember commands. You can edit, add, or delete single characters, words, or lines of text. Lines and paragraphs can easily be copied or moved with pushbutton ease. The days of retyping entire documents are gone when you have VEDIT/1000 on your HP 1000 System.

#### **FEATURES**

- Easy to use by people unfamiliar with computers
- Fast Entry Mode for high speed typing
- Insert and delete characters, words and lines
- Copy and move lines and paragraphs
- Merge files
- Find strings and line numbers
- Scroll and page through text

RETAIL PRICE: \$1,000.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

CONTACTS:

Chuck Nickerson

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE: (201) 583-4422

#### SYSTEM REQUIREMENTS Computer Model: HP 1000 Models 40, 45 Peripherals: HP 2645A, HP 2648A, HP 2647A, HP 2626A or HP 2624A terminals Memory: 25 page partition and HP 12966A interface card Operating System: RTE-IVB Other Software: CUSTOMER SUPPORT Geographic Area Supported: Worldwide ☐ Canada ☐ Far East (all) ☐ Europe (all) □ U.S. (all regions) ☐ Mexico ☐ Latin America (all) □ East □ South ☐ Midwest □ West ☐ South Africa □ Australia/N.Z. Support Services Available: De phone-in support □ remote dial-in a on-site consulting **3** on-site systems engineers M program modification Additional Support Information and Pricing: 11100V Level 1 Support \$20.00/month 11100T Level 2 Support \$70.00/month 11100Q Manual Update Service \$ 2.00/month CUSTOMER TRAINING/DOCUMENTATION Training Available: No training necessary Price: Documentation Available: 11100M VEDIT/1000 Reference Manual Price: \$5.00/copyDocumentation Available in other languages: NUMBER OF INSTALLATIONS: 10 DATE OF FIRST INSTALLATION: ADDITIONAL INFORMATION Ordering/Pricing Data: 11100A VEDIT/1000 Relocatable Binary License \$1,000.00 11100R VEDIT/1000 Right To Copy \$ 500.00 11100S VEDIT/1000 Source License \$2,500.00 Media Options: -020 VEDIT/1000 on mini cartridges 50.00 -050 VEDIT/1000 on 800 bpi mag tape N/C -051 VEDIT/1000 on 1600 bpi mag tape N/C RESPONSIBILITIES STATEMENT This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely

HP USE ONLY

I.D. Code:

Application Code: 52.11006 Expiration Date: 9/1/82

PRODUCT NAME

SPELL/1000 Automatic Proofreader

MAINFRAME(S) HP 1000 E, F & L-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

One of the most labor intense and often neglected, word processing tasks is proofreading. This time consuming job, if done correctly, can make the difference between winning and losing. A proposal filled with typing mistakes and misspelled words will give the customer a bad impression of your company.

A large document may still contain errors even though it was proofread by several people. People, after several pages of reading, tend to scan a document instead of proofreading it.

SPELL/1000 checks every word in your document to see if it appears in the dictionary. Any word which is not found in the dictionary is printed. This list of words can then be easily scanned for typing mistakes and misspelled words. These errors can be quickly found and corrected using VEDIT/1000. SPELL/1000 can significantly reduce the time required for proofreading and increase the quality of your documents.

#### **FEATURES**

- Easy to use
- Dictionary can be customized by user
- 3000 word dictionary
- More accurate than reading
- An aid to vocabulary standardization
- Supports multiple dictionaries
- Automatic dictionary restructuring
- Fast operation even with large dictionaries
- Operates in RTE-II, III, IVA, IVB
- Normalizes words for effective searching
- No special dictionary edit program to learn

RETAIL PRICE: \$1,000.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

CONTACTS: Chuck Nickerson

ADDRESS:

675 Line Road Aberdeen, NJ 07747

TELEPHONE:

(201) 583-4422

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Peripherals:			
Memory: 25 page partition			
Operating System: RTE-XL, RTE-IVB			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
☑ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	☐ Far East (all)		
☐ East ☐ Latin America (all) ☐	O		
□ Midwest □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
□ South Africa	☐ Australia/N.Z.		
Support Services Available:			
<ul><li></li></ul>	☐ remote dial-in  ■ program modification		
Additional Support Information and Pricing:  11300V Level 1 Support \$20.00/month  11300T Level 2 Support \$70.00/month  11300Q Manual Update Service \$ 2.00/month			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: No training necessary	Price:		
Documentation Available: 11300M SPELL/1000 Reference Manual	Price: <b>\$5.00/copy</b>		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 5 DATE OF FIRST INSTAL	LATION:		
ADDITIONAL INFORMATION			
Ordering/Pricing Data:       11300A SPELL/1000 Relocatable Binary License       \$1,000.00         11300S SPELL/1000 Source License       \$2,500.00         11300R SPELL/1000 Right To Copy       \$ 500.00			
Media Options:       -020 SPELL/1000 on mini cartridges       \$ 50.00         -050 SPELL/1000 on 800 bpi mag tape       N/C         -051 SPELL/1000 on 1600 bpi mag tape       N/C			
RESPONSIBILITIES STATEMENT			
This software was developed by an independent software supplier for operation on HP com-	nuter evetame. The supplier is colour		

HP USE ONLY

I.D. Code:

Application Code: **52.11008** Expiration Date: **9/1/82** 

PRODUCT NAME

Cross Assemblers for Microprocessors

MAINFRAME(S)

HP 1000

E, F & L-Series

**PRODUCT DESCRIPTION:** (basic product information, user-specific details, major features & benefits, etc.)

Relocatable Macro Assemblers and Linking Loaders written in ANSI standard FORTRAN IV for a wide range of microprocessors including 8080/85, 8086, Z8, Z80, Z8000, 6800/01/05, 6809, 1802/1804, 6500 series, TI 9900 series. (68000 and 8051 availability is June 1981)

These assemblers provide powerful Macro facilities and produce relocatable code. Subsequent linking/loading of the relocatable modules is accomplished through the use of corresponding Linking Loaders which are supplied along with the assemblers.

The assembler directives and instruction mnemonics are identical to those utilized by the semiconductor manufacturers in their literature and software products. However, additional directives have been implemented to provide versatility in listing and output controls.

In addition to the Macro facility, conditional assembly statements have been implemented. The assemblers provide symbolic addressing, constant generation, cross reference listings, etc.

The relocatable output of these assemblers provide features not found in other assemblers. Separately assembled modules may be linked together by means of public and external symbols. Some assemblers provide for a COMMON area. PROGRAM, DATA, and STACK and sometimes base page memory areas may be specified. Thus the assembler/loader package provides for generating code for ROM/RAM systems.

When the advantages of using the shared resource, multi-user HP 1000 computer system in conjunction with these assemblers, it is clear that a most convenient and flexible means for developing programs for microprocessors has been made available.

RETAIL PRICE:

\$950 to \$1600 (See Additional Information section for more pricing data)

COMPANY NAME:

Microtec

CONTACTS:

David Zemel

ADDRESS:

Sunnyvale, CA 94088

Jerry Kirk

TELEPHONE:

(408) 733-2919

P.O. Box 60337

#### SYSTEM REQUIREMENTS Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Peripherals: Floppy or hard disc drive. (Recommend hard disc drive 56 kb partition minimum for enhanced performance) Operating System. RTE-IVB, RTE-XL Other Software: FORTRAN 4X required CUSTOMER SUPPORT Geographic Area Supported: **⊠** Europe (all) ☐ Worldwide Canada ☐ Far East (all) U.S. (all regions) Mexico □ East ☐ Latin America (all) Brazil □ South ☐ Midwest Argentina ☐ West ☐ South Africa Australia/N.Z. Support Services Available: mail-in support □ phone-in support ☐ remote dial-in □ program modification (by appointment only) Additional Support Information and Pricing: (1) Subscription Service included for first year, 10% of list price/year thereafter. (2) Contact Microtec for other support prices. CUSTOMER TRAINING/DOCUMENTATION Training Available: On-site training available upon request. Price: special quote Documentation Available: Users Manual Price: \$15.00/copy Documentation Available in other languages: NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 600 ADDITIONAL INFORMATION Ordering/Pricing Data: Intel 4004/4040 ASM40 \$ 950.00 Zilog Z8 ASMZ8 \$1500.00 \$ 950.00 ASMF8 Fairchild/Mostek/ ASMZ80 Zilog Z80 \$1500.00 Motorola F8,3870 ASMZ8002 Zilog Z8002 \$1500.00 Signetics 2650 ASM26 \$ 950.00 ASM18 RCA 1802/1804 \$1500.00 Intel 8048, 8049, 8748, \$1200.00 MOSTech 6500 family \$1500.00 ASM48 ASM65 8035, 8021, 8041 ASM21 HP 1000, 21MX with \$1600.00 TI9900 ASM99 \$1500.00 RTE-IV Intel 8080/8085 ASM80 \$1500.00 NOTE: Each program ships with source pro-ASM86 Intel 8086/8088 \$1500.00 gram on mag tape, test cases and Motorola 6800/6801 ASM68 \$1500.00 reduced size listings. One copy of ASM05 Motorola 6805 \$1500.00 Users Manual included. ASM69 Motorola 6809 \$1500.00

#### RESPONSIBILITIES STATEMENT

HP USE ONLY

LD Code:

Application Code: 52.11009

Expiration Date: 9/1/82

PRODUCT NAME

MAINFRAME(S)

Meta-Assemblers for Bit-Slice or Microprogrammed Processors

HP 1000 E. F & L-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The Meta-Assembler provides an extremely valuable programming tool for those persons who are faced with the problem of writing micro-programs for bit slice processors such as the 2901 or the 10800, and it is also a practical necessity for those who are faced with the problem of microprogramming any wide-word driven micro-sequencer system.

The Meta-Assembler consists of three separate programs, written in FORTRAN, which allow the user to define his own assembly language, assemble a program written in the new assembly language, and produce information for organizing the resulting object module for writing ROM memories.

The three programs that comprise the package are the Definition Program, the Assembly Program and the Prom Formatter Program.

The Definition Program allows the user to define instruction mnemonics and their associated formats. Instruction lengths may vary from 1 to 128 bits. An instruction format is defined by breaking the microword into fields and defining the fields as variables, constants or don't care bits. The variables are to be filled in at Assembly time.

The Assembly Program operates like a traditional assembler. A symbolic source program utilizing the mnemonics and symbols defined in the Definition Program is read as input, and a listing and object module are generated as output. Both the Definition Program and the Assembly Program are implemented with Conditional Assembly and Cross Reference Table features.

The Prom Formatter Program reads the object module produced by the Assembly Program and translates the format into one that can be read by a Prom programmer. BNPF, Data I/O, ASCII hexadecimal, and the Step Engineering format are supported. Microwords in the object module can be divided into organizations that are compatible with the target PROM/ROM array. Arrays of any width or length may be specified as well as the value of don't care bits. The arrays may be selectively output.

There is also an enhanced version of the above program set available called the Macro Meta Assembler. This version has implemented a powerful macro facility that enables the user to define multi-word microinstructions using a single mnemonic; to encode complex overlayed instructions, and to encode non-contiguous fields. In addition, character strings may be passed to macros, symbols may be dynamically concentrated, Local/Global directives may be used, and some additional arithmetic operators have been added. The Prom Formatter has new features too. These new features increase programming efficiency.

RETAIL PRICE:

\$1500 for Meta-Assembler (META 29)

\$2400 for Macro Meta-Assembler (META 29M)

COMPANY NAME: Microtec

CONTACTS:

David Zemel

P.O. Box 60337

Jerry Kirk

ADDRESS:

Sunnyvale, CA 94088

TELEPHONE: (408) 733-2919

#### SYSTEM REQUIREMENTS Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Peripherals: Floppy or hard disc drive. (Recommend hard disc drive Memory: 56 kb partition minimum for enhanced performance) Operating System: RTE-IVB, RTE-XL Other Software: FORTRAN 4X required CUSTOMER SUPPORT Geographic Area Supported: ☐ Far East (all) ☐ Worldwide ☑ Mexico ☑ U.S. (all regions) X \_Japan □ East ☐ Latin America (all) □ South 🗷 Brazil □ Midwest X \_Argentina □ West ☐ South Africa Australia/N.Z. Support Services Available: mail-in support ☐ remote dial-in on-site consulting ■ on-site systems engineers □ program modification (by appointment only) Additional Support Information and Pricing: (1) Subscription Service included for first year, 10% of list price/year thereafter. (2) Contact Microtec for other support prices. CUSTOMER TRAINING/DOCUMENTATION Training Available On-site training available upon request. Price: special quote Documentation Available: Users Manual \$15.00/copy Price: Documentation Available in other languages: NUMBER OF INSTALLATIONS: 250 DATE OF FIRST INSTALLATION: ADDITIONAL INFORMATION NOTE: Each program ships with source program on mag tape, test cases and reduced size listings. One copy of Users Manual included. RESPONSIBILITIES STATEMENT This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims

any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is

responsible for selection of the software it purchases.

HP USE ONLY I.D. Code:

Application Code: **52.11010** Expiration Date: **9/1/82** 

PRODUCT NAME

Simulators for Microprocessors

MAINFRAME(S)

HP 1000 E, F & L-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Interactive Simulators are available for a wide range of microprocessors including the 8080/85, 8086, Z80, Z8002, 8048/41/22/21, 6800/01/02/05, 6809, F8/3870, and 6500. These programs are written in ANSI standard FORTRAN IV and perform interpretive execution of the target microprocessor object module. Optionally, they can be run in a batch mode, otherwise the user normally interacts with the debugging environment from a terminal.

These programs simulate the ROM/RAM environment, I/O operations, interrupts. And of course they provide multiple operand and instruction breakpoints, memory display/modification, internal register display/modification, and program execution tracing.

Microprocessor addressing space is simulated through a disk page swapping technique which reduces the actual memory requirements of the programs. Simulated data may be input to the program under test as fixed values, variable values plucked from a carousel buffer (preset by user), variable values from a file, or even immediate values solicited on demand from a user at a terminal. Both port and memory-mapped I/O are simulated.

Symbolic debugging: The user may utilize symbols (labels) from the assembly process in communicating with the simulator. Also reverse assembly of instructions are provided during simulated instruction execution.

Utilizing the power of the shared resource environment of the HP 1000 computer system, these Interactive Simulators provide the microprocessor programmer with an invaluable tool for the efficient development of software.

NOTE: These programs are usually used on the HP 1000 in conjunction with Microtec's Relocatable Macro Assemblers.

RETAIL PRICE: \$850 to \$1200 (See Additional Information section for more pricing data.)

CONTACTS:

David Zemel

Jerry Kirk

COMPANY NAME: Microtec

P.O. Box 60337

Sunnyvale, CA 94088

TELEPHONE: (408)

ADDRESS:

(408) 733-2919

#### SYSTEM REQUIREMENTS Computer Model: HP 1000 Models 5, 9, 10, 40, 45 Floppy or hard disc drive Peripherals: (Recommend hard disc drive Memory: 56 kb partition minimum for enhanced performance) Operating System: RTE-IVB, RTE-XL Other Software: FORTRAN 4X required **CUSTOMER SUPPORT** Geographic Area Supported: □ Worldwide Canada ■ Europe (all) ☐ Far East (all) ☑ U.S. (all regions) ☑ Mexico X Japan ☐ Latin America (all) □ East ☐ South Brazil $\mathbf{X}$ ☐ Midwest X Argentina □ West ☐ South Africa Australia/N.Z. Support Services Available: ■ phone-in support mail-in support ☐ remote dial-in on-site systems engineers □ program modification (by appointment only) Additional Support Information and Pricing: (1) Subscription Service included for first year, 10% of list price/year thereafter. (2) Contact Microtec for other support prices. CUSTOMER TRAINING/DOCUMENTATION Training Available: On-site training available upon request. Price: special quote Documentation Available: Users Manual \$15.00/copy Price: Documentation Available in other languages: DATE OF FIRST INSTALLATION: NUMBER OF INSTALLATIONS: 500 ADDITIONAL INFORMATION Ordering/Pricing Data: SIM40 Intel 4004/4040 \$ 850.00 INT48 Intel 8048, 8049, 8748, \$1000.00 SIMF8 Fairchild/Mostek/ \$ 850.00 8035, 8021, 8041 INT68 Motorola 6800/6801 Motorola F8, 3870 \$1000.00 SIM26 Signetics 2650 INT69 Motorola 6809 \$ 850.00 \$1200.00 INT18 RCA 1802/1804 \$1000.00 INTZ80 Zilog/Mostek Z80 \$1000.00 INT80 Intel 8080/8085 \$1000.00 INTZ8002 Zilog/AMD Z8002 \$1200.00 INT86 Intel 8086 \$1200.00 Each program ships with source program on mag tape, test cases and reduced size listings. NOTE: One copy of Users Manual included.

#### RESPONSIBILITIES STATEMENT

HP USE ONLY I.D. Code:

Application Code: **52.11011** Expiration Date: 9/1/82

PRODUCT NAME

MAINFRAME(S)

ATLASCAN ATLAS Syntax Checker/Verifier

**HP 1000** E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

ATLASCAN reads in the user-designated ATLAS source file and compares each statement to the formal syntax definitions defined by the IEEE Standards committee. The formal syntax defines the rules for constructing each type of ATLAS statement and describes the acceptable keyword combinations, e.g., the appropriate dimensions for a given modifier, etc. This comparison process continues for each ATLAS statement through the end of the program. If an error is detected, an error message is displayed along with the statement line containing the error. A caret (^) appears directly below the word in the statement which was being processed when the error was detected, which aids the programmer in his correction. Error display may be sent directly to the programmer's terminal, or may be directed to a separate file which can be displayed or printed at the termination of ATLASCAN.

#### **FEATURES**

ATLASCAN ATLAS source verification program points out syntax errors in your ATLAS test procedures.

- If you have a requirement to supply test documentation in accordance with military TRD's (MILSTD 1519), ATLASCAN ensures that your ATLAS test procedures fully comply.
- If you have a requirement to provide syntax verified ATLAS test procedures, ATLASCAN ensures that you can meet those requirements.
- If your current ATLAS compiler station is overloaded, ATLASCAN can level the peaks. Developing, modifying, and syntax verifying ATLAS test procedures on a separate facility before they are input to the ATLAS compiler frees the compiler resources for other work. And you run more multiple copies of ATLASCAN and support more ATLAS programmers.
- ATLAS programs which have been verified with ATLASCAN are acceptable to most pure IEEE ATLAS compiler systems. And ATLASCAN recognizes the complete Avionics ATLAS subset — ARINC 616.

In short, ATLASCAN provides a LOW COST solution to anyone who wants to produce syntactically correct ATLAS test procedures.

RETAIL PRICE: \$7500.00 License in Perpetuity per copy

COMPANY NAME: Lexico Enterprises, Inc.

Al Rogers CONTACTS:

ADDRESS:

1200 112th Avenue, N.E., Suite C-179

**Product Manager** 

Bellevue, Washington 98004

Applications Support Division

TELEPHONE:

(206) 455-0743

SYSTEM REQUIREMENTS			
Computer Model: HP 1000 Models 40, 45	Peripherals:		
Memory: 29 kb partition			
Operating System: RTE-IVB			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide ☐ Canada ☐ ☐ U.S. (all regions) ☐ Mexico	Europe (all)		
☐ East ☐ Latin America (all)			
☐ South ☐	O		
□ West □□	South Africa   Australia/N.Z.		
Support Services Available.			
☑ phone-in support   ☑ mail-in support     ☑ on-site consulting   □ on-site systems	engineers		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION	1844-184		
Training Available: For training, contact Lexico	Price: Special Quote		
Documentation Available:	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: 5/15/81			
ADDITIONAL INFORMATION			
RESPONSIBILITIES STATEMENT			

## Software Supplier Product Summary

Pascal Development System

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11012 Expiration Date: 1/1/83

Product Name:

Computer Museum

Mainframe(s):

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Pascal Development System (PDS) has all the tools necessary to develop commercial software in Pascal. Allows user to establish a data base, and parameterized data entry and reports. Some PDS features are: a) Complete multi-user ISAM type File Manager with utilities b) File Definitions may be changed without changing programs c) Screen entry and editing completely parameterized d) Reports are parameterized and may be changed without changing programs e) Approximately 50 Utility programs and procedures to allow flexibility of use and handle standard programming needs f) Parameterized CRT routines allow mixed CRT's on system g) Designed for interactive menu-driven systems h) Has self-documenting features. PDS is field-tested and has been used to develop complex accounting systems.

Retail Price:

\$1,500

Company Name: Theta Business Systems

Contacts: Larry Jones

Steve Rinehart

Address:

1110 Sonora Ave., #106

Glendale, CA 91201

Telephone: (213) 242-7981, 245-0197

SYSTEM REQUIREMENTS			
Computer Model: HP 1000	Peripherals: Printer		
Memory: 256KB (multi-user)			
Operating System: RTE			
Other Software: None			
CUSTOMER SUPPORT			
Geographic Area Supported:			
Worldwide			
Support Services Available:			
<ul><li>☑ phone-in support</li><li>☑ mail-in support</li><li>☑ on-site consulting</li><li>☐ on-site systems engineers</li></ul>	□ remote dial-in ☑ program modification		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: Installation, Use, Modifications	Price: \$400/day		
Documentation Available: User Manuals, print-outs	Price: Included		
Documentation Available in other languages: No			
NUMBER OF INSTALLATIONS: 45+ DATE OF FIRS	ST INSTALLATION: September 1979		
ADDITIONAL INFORMATION			
RESPONSIBILITIES STATEMENT			

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

HP USE ONLY

I.D. Code:

Application Code: 52.11013 Expiration Date: 4/1/83

PRODUCT NAME

SCREEN/1000

MAINFRAME(S)

E series HP/1000 F series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

SCREEN is the form management system designed to increase programmer productivity and system flexibility. Coupled with any of HP's 26xx series terminals, SCREEN's technology obsoletes more primitive techniques by doing away with form definition languages and form layout sheets. SCREEN allows the programmer to design, debug and maintain his form interactively through any 26xx terminal. The position of data on the screen is completely uncoupled from the program which manipulates the data, so changes to forms need not change the programs which use them. Software packages can have the "custom" feel without modifying any source code.

SCREEN addresses the form development and the form usage environments with different modules. The SBULD module interactively builds, tests, and maintains libraries of forms. Form libraries are stored in indexed FMGR files to allow fast access. Management information is stored along with the forms so that program developers can maintain control over form revisions and updates.

The runtime environment is maintained by a collection of routines which allow the programmer to open form libraries, display forms and transfer data to and from the CRT operator.

Features:

Manages any 26xx terminal.

Manages most HP supported interfaces

Interactive form design-SBULD

All data type processing

IMAGE compatible

Record "hold" capability

Host language interfaces

User-defined data types and data checking

Automatic initial cursor positioning

Free field data input

Management reports

Runtime routines require about 4,000 decimal words

Data arrays - name several fields with the same ACSII name

Simple form maintainence and software customization

RETAIL PRICE: \$1800 - Relocatable Binary License

\$ 500 - Right to Copy

COMPANY NAME: Corporate Computer Systems

CONTACTS: Joan Dillon

Sales Manager

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE: 201-583-4422

TELEX: 642672 CCS ABTW

SYSTEM REQUIREMENTS	
Computer Model: HP/1000 E F XL Peripherals	
Memory:	
Operating System: RTE IVB, VI, XL	
Other Software: None required	
CUSTOMER SUPPORT	
Geographic Area Supported:	
XXWorldwide	☐ Far East (all)
☐ East ☐ Latin America (all) ☐ ☐ South ☐ ☐	
☐ Midwest ☐ ☐	
□ West □ □ South Africa	☐ Australia/N.Z.
Support Services Available:	
☐ phone-in support ☐ mail-in support ☐ on-site systems engineers	<b>⊠x</b> remote dial-in  □ program modification  □ pr
Additional Support Information and Pricing:  Level I - \$20/mo mail update service  Level II - \$70/mo - Level I plus call-in and	Telex support
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available:	Price:
Manual	\$5.00
Manual update service Documentation Available in other languages:  none	\$2.00.mo.
NUMBER OF INSTALLATIONS: 62 DATE OF FIRST II	NSTALLATION: Jan. 1982
ADDITIONAL INFORMATION	
Established HP/1000 users can obtain a copy	at no-cost for 30 days
for evaluation - offer includes 30 days of C	cs Level II support.
, '	
RESPONSIBILITIES STATEMENT	

HP USE ONLY

I.D. Code:

Application Code: 52.11014 Expiration Date: 4/1/83

PRODUCT NAME

MAINFRAME(S)

SORT/1000

HP/1000 E F XL

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

SORT is a general purpose sorting tool for use with the FMGR in the RTE operating system. It operates either interactively or through the use of command files. In the interactive mode, the user is prompted for sort commands and they are executed as received. Command files allow the user to "batch" commands into a file and then process all of the commands with the SORT.

Features:

Interactive or file driven Argument substitution Multi-file merge Multi-key sort Scratch file control Escape to another program

RETAIL PRICE:

\$995.00 - Relocatable Binary License

COMPANY NAME: Corporate Computer Systems

CONTACTS:

Joan Dillon

ADDRESS:

675 Line Road

Aberdeen, NJ 07747

TELEPHONE: 201-583-4422 TELEX:

642672 CCS ABTW

Sales Manager

SYSTEM REQUIREMENTS			
Computer Model: HP/1000 E F XL	Peripherals:		
Memory:			
Operating System: RTE IVB VI XL			
Other Software: none required			
CUSTOMER SUPPORT			
Geographic Area Supported:			
⊠ XWorldwide □ Canada □ Euro     □ U.S. (all regions) □ Mexico □	ppe (all)		
☐ East ☐ Latin America (all) ☐			
□ Midwest □ □			
□ West □ □ Sou	th Africa		
Support Services Available:			
xx phone-in support xx mail-in support xx on-site consulting □ on-site systems en	xineers □ program modification		
Additional Support Information and Pricing:  Level I - \$20/mo mail update service  Level II - \$70/mo Level I plus call-in and Telex support			
CUSTOMER TRAINING/DOCUMENTATION			
COSTOMER TRAINING/DOCOMENTATION			
Training Available:	Price:		
Training Available:			
	Price: \$5.00		
Training Available:  Documentation Available:  Manual update service	Price: \$5.00 \$2.00/mo.		
Training Available:  Documentation Available:  Manual	Price: \$5.00		
Training Available:  Documentation Available:  Manual  Manual update service  Documentation Available in other languages:  none	Price: \$5.00		
Training Available:  Documentation Available:	Price: \$5.00 \$2.00/mo.		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo. TE OF FIRST INSTALLATION: Feb 1982 tain a copy at no-cost for 30 days		
Training Available:  Documentation Available:     Manual update service Documentation Available in other languages:     none  NUMBER OF INSTALLATIONS: 27 DA  ADDITIONAL INFORMATION  Established HP/1000 users can ob-	Price: \$5.00 \$2.00/mo.  TE OF FIRST INSTALLATION: Feb 1982  tain a copy at no-cost for 30 days 30 days of CCS Level II support.		

HP USE ONLY

I.D. Code:

Application Code: 52.11015

Expiration Date:

PRODUCT NAME

Dimension (IMAGE Transaction Generator)

MAINFRAME(S)

HP-1000 M/E/F/L

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Dimension-1000 is an easy-to-use transaction generator for IMAGE data base applications. It is a companion product to POLARIS's VIEW-1000 Screen package. Transaction can be defined to add, find, change, display and delete data with little, if any, programming.

To implement a Dimension based application, the user (a programmer or casual RTE operator) sits down at a terminal to define a Dimension transaction. Information on screen names, data sets, data bases, access modes, and editing formats is keyed in through full screen "menus". After the transaction has been validated and compiled, it can be used in an on-line program immediately.

In effect, it is now possible to develop a full screen data base transaction in about the same time it takes to develop the schema and the VIEW screen formats.

#### FEATURES:

- \* Fill-in-the-blanks approach to systems design.
- \* Change transactions without recompiling or reprogramming.
- \* Access up to 5 IMAGE data bases.
- \* Transaction level security locks.
- \* Automatic system documentation.
- \* Merge several data set entries into 1 CRT screen.
- \* Validate input data against underlying IMAGE data base.
- \* Log and control application changes.
- \* On-line applications system control inquiries.
- \* Generic and wild card search capability of IMAGE data sets.

**RETAIL PRICE**: \$4,800.00

X PURCHASE

X LEASE 1 thru 5 years

COMPANY NAME:

CONTACTS: Mr. Doug Kelly

Mr. Chuck Nickerson

Mr. Ron McCullough

ADDRESS: POLARIS Systems, Inc. 2100 Old Mill Plaza

\_ Sea Girt, N.J. 08750

TELEPHONE: U.S.A

(201) 449-1747

HARDWARE RE	.QUIRED	
Memory Options Operating System	& XL 21KW partition sizes	y HP CRT terminal
Other Software.	IMAGE- 1000 (92069) H.P. VIEW-1000 POLARIS	
CUSTOMER SUI	PPORT	
Support Services A	Available	
Deprise the support of the support o		<ul><li>remote dial-in(5)</li><li>program modification(6)</li></ul>
Support Prices (	(1) \$50.00 per month(3) included with (1) (2) \$500.00 per day (4) \$500.00 per day	(5) \$50.00 per hour (6) \$500.00 per day
Geographic Area S	Supported	
☐ Worldwide  © U.S. (all regions ☐ East ☐ South ☐ Midwest ☐ West	SC Canada  Mexico  Latin America (all)  C  South Africa	Far East (all)
 Are you willing to	establish agency agreements outside your market area? XXYES	□ NO
CUSTOMER TRA	RAINING/DOCUMENTATION  2 day user instruction course at  Sea Girt, N.J. or user site (in  U.S. or Canada, min 5 students at user site)	Price \$400.00 per student.
Documentation Available Documentation Available	user site)  Vallable  Introduction Guide, On-Line User  Guide, User Programming Guide.  Vallable in other languages	Price 1 set included. Additional sets at \$25.00ea.
NUMBER OF IN	STALLATIONS: 7 DATE OF FIRST INSTALL	LATION: Q1-15-81
terminal usystem des	FORMATION  a complete indexed, on-line user manual user. Most documentation is just a key signer can also use this facility in appointmentation is just a key of the signer can also use this facility in appointmentation of line purchase discounts available up to so of line 5 years available.	stroke away. A plication development

#### RESPONSIBILITIES STATEMENT

HP USE ONLY
LD Code:
Application Code: 52.11016
Expiration Date:

PRODUCT NAME

MAINFRAME(S) HP-1000 M/E/F L&XL

VIEW-1000 On-line Forms & Data Entry System

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)
VIEW-1000 gives the RTE user a complete forms design and data entry package. Patterned after VIEW-3000, the product supports messages, error processing, and forms development with little if any user programming. A complete data entry module is also included for file manager use without any user programming. These features combine to reduce data entry applications development time by 50%-60%.

Both forms and user programs are portable to and from the HP-3000.

A complete run-time user instruction manual is built-in.

#### FEATURES:

- \* On-line forms design and applications development.
- \* Built-in data entry programs for user developed forms.
- \* Menu-driven, softkey design.
- \* On-line user instruction manual.
- \* Point to point, multi-point, and multiplexor support.
- \* Error message flaging supported.
- \* Forms, messages, and program control parameters can be changed without reprogramming.
- \* High level compatibility with HP's VIEW-3000.
- \* All terminal strapping, driver configuration and escape code sequences are generated automatically by VIEW-1000.
- \* Long and short term leasing terms available

PRICE: \$3,500.00

□ PURCHASE

🖫 LEASE 1 thru 5 years

COMPANY NAME:

ADDRESS:

POLARIS Systems, Inc. 2100 Old Mill Plaza

Sea Girt, N.J. 08750

TELEPHONE:

(201) 449-1747

U.S.A.

CONTACTS: Mr. Doug Kelly

Mr. Chuck Nickerson

Mr. Ron McCullough

HP-King of Prussia, Pa. U.S.A

HARDWARE REQUIRED	
Computer Model: HP-1000 M/E/F  Memory Options: & XL  21KW partition sizes  Operating System:	ny HP CRT terminal
RTE-IV A, RTE-IV B, RTE-IV	
Other Software: 92069A IMAGE required for V-IMAGE option	
CUSTOMER SUPPORT	
Support Services Available.	
	<b>∞</b> consider distinction
Image: Image	
Support Prices: (1) \$50.00 per month(3) included with (1)(5) \$50.00 per hour (2) \$500.00 per day (4) \$500.00 per day (6) \$500.00 per day	
Geographic Area Supported:	
□ Worldwide	Far East (all)
□ South □ □ □	
□ Weet □	
South Africa	☐ Australia/N.Z. ☐ NO.
Are you willing to establish agency agreements outside your market area? XXYES	□ NO
CUSTOMER TRAINING/DOCUMENTATION	
Training Available 2 day user instruction course at Sea Girt, N.J. or user site (in U.S. or Canada, min 5 students at user site)	Price: \$400.00 per student.
Documentation Available:  Introduction Guide, On-Line User Guide, User Programming Guide.	Price 1 set included. Additional sets
Documentation Available in other languages:	at \$25.00ea.
NUMBER OF INSTALLATIONS: 17 DATE OF FIRST INSTALLATION: 07-15-81	
ADDITIONAL INFORMATION	
VIEW has a complete indexed, on-line user manual available to every terminal user. Most documentation is just a key stroke away. A system designer can also use this facility in application development.	
OEM and volume purchase discounts available up to 80% of list price.	
Lease terms of 1 to 5 years available.	
RESPONSIBILITIES STATEMENT	

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11017

Expiration Date:

Product Name:

NDX - SORT

Mainframe(s):

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

NDX-SORT is a flexible, multi-featured sort merge program called by user application programs for dynamically controlled sort and merge procedures at run time. NDX-SORT supports blocked logical records, multiple sort fields per logical record, word or byte addressing and ascending or descending sequence specifications for each sort field. NDX-SORT is an excellent product to use with H-P IMAGE database applications. Using extracted data values instead of record addresses, the system reduces database accesses and run-times and eliminates problems caused by unexpected changes in the data addresses during sorting.

Retail Price:

one time license - \$1800.00

Company Name: Data Index, Inc.

Address: 4390 Alpha Road, Dallas, TX 75234

Telephone: 214-386-3929

Contacts: Robert L. McIntire
Sharon Diveley

Jill Marlborough

SYSTEM REQUIREMENTS		
Computer Model: HP 1000, HP 1200	Peripherals:	DISKS
Memory: 128K		TERMINALS
Operating System: RTE II, RTE IV		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
Worldwide Canada Europe (all) U.S. (all regions) Mexico East Latin America (all) South Midwest West South South Africa		Far East (all)
Support Services Available:		
<ul> <li></li></ul>		remote dial-in program modification
Additional Support Information and Pricing:  CUSTOMER TRAINING/DOCUMENTATION  Training Available: Source language application	Pri	ce: Included
Program provided for illustration	111	ce. Included
Documentation Available: Fully documented stand-alosort/merge package provided  Documentation Available in other languages: NO	one <sup>Prid</sup>	<sup>ce:</sup> Included
NUMBER OF INSTALLATIONS: DATE OF FIRST	ST INSTALLAT	ION:
ADDITIONAL INFORMATION NDX-SORT permits application programers	to extrac	t fields from
multiple image files and to prepare customi	ized, sort	ed output reports.
RESPONSIBILITIES STATEMENT		

HP USE ONLY

I.D. Code:

Application Code: 52.11018

Expiration Date:

Product Name:

QUESTOR

Mainframe(s):

HP-1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

QUESTOR is an online multi-user data entry and retrieval subsystem with an easy to use block screen interface to HP's 1000 INAGE. The package allows entry level programmers to create and implement sophisticated data base applications, through user defined forms on HP-26xx block mode type terminals, without any programming effort.

The package provides:

A forms design language: an easy to use english language allowing complete use of the 26xx terminals field enhancement and checking capabilities.

A forms loader: an automatic data base item to entry field linker allowing ease of schema and form design changes.

Transaction logging and restoration; data base alterations (addition, updates, deletions) can be stored to mass storage devices for later reloading if need be.

Loyon user accounts: provides user security. Each user has his own password, screens, and access levels. Screens are shareable with record locking for update and delete operations.

FFATURES:

Multiple screens per job tasks are supported. Shareable screens among user accounts. Record locking, with un-inhibited reads. Full dynamic data base transaction logging and backup. Form field size automatically calculated for each data item used in the form. Automatic field conversion for real and integer data types. User specifiable placement of fields on automatic form generations. Data items from more than one data set may be linked to a form. Fields relating to data items can be freely placed anywhere on the form. Serial, generic, and keyed first operations are supported. User can easily establish a query mask for data-base searches by inserting criteria in form fields to match against. This can be > or < qualifiers for real and integer fields. In ascii fields generic string mask can be utilized. CRT enhancements such as inverse video, half-brite, etc. are supported. Field type checking done by the crt is supported. Ascii, integer, and real data items are supported. Custom form operations can be developed using supplied subroutines that allow one to examine and modify on a field and form basis, the data before it is sent to the data base. In addition, calls are provided to allow messages to be displayed on the bottom screen line, for a limited time.

\$3,000

Company Name:

Contacts:

Address:

Combs & LaRobardiere Systems, Inc.

55 Peach Tree Court

Don LaRobardiere

Bob Combs

Telephone:

Hawthorne, New Jersey Ø75Ø6

(201) 427-5890

SYSTEM REQUIREMENTS			
Computer Model: HP 1000	Peripherals: HP block mode CRTs - pt to pt		
Memory: 20 pages	- multiplexer		
Operating System: RTE 4B, 6, XL, A.1	- multipoint		
Other Software:			
INAGE 1000			
CUSTOMER SUPPORT			
Geographic Area Supported:			
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □			
Support Services Available:	:		
☐ phone-in support ☐ mail-in support ☐ on-site consulting ☐ on-site systems engineers	□ remote dial-in         □ program modification		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site	Price: \$2,000/ day		
Documentation Available: Reference Manual	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE OF FIRST	ST INSTALLATION:		
ADDITIONAL INFORMATION			
RESPONSIBILITIES STATEMENT	<u>i</u>		

HP USE ONLY

I.D. Code:

Application Code: 52.11019

**Expiration Date:** 



Product Name:

Mainframe(s):

**QFORM** 

HP-1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PRODUCT DESCRIPTION:

QFORM is an easy to use forms generation package that operates on block mode terminals. It includes an easy to use forms editor and subroutine library package.

FTATURES of the editor:

The editor makes use of the tenninals local edit functions thus allowing users to quickly feel at ease in generating form layouts.

The user has no complicated edit commands to learn as in other editors. Pressing enter makes a production copy identical to the edited screen layout.

User define the editor's function keys for personalized form can generation tasks.

All 24 lines of the terminal's screen can be used.

Up to 256 fields can be specified.

field can be built using the tenninals field type checking capabilities; alpha, numeric, or alpha-numeric.

Any field can be given a display enhancement.

Fields can be labeled, thus allowing form changes without recoding of user programs.

FEATURES of the library:

Form reads and writes are done in page mode to minimize system overhead. Left or right justification of field data.

Conversion of field data to/from integer or real is provided, thus one uces not have to use the formatter.

Support of function key definition, dumping to crt, and reading.

Cursor positioning via subroutine call is supported.

Fields may be addressed by label or number.

Retail Price:

\$995

Company Name:

Contacts:

Address:

Combs & LaRobardiere Systems, Inc.

Don LaRobardiere

55 Peach Tree Court

Bob Combs

Telephone:

Hawthorne, New Jersey Ø**7**506

(201) 427-5890

SYSTEM REQUIREMENTS			
Computer Model: HP 1000	Peripherals: HP block mode CRTs		
Memory: editor: 12 pages  Operating System: page 1 av 4 av 60 6 a 1	point-to-point		
Operating System: RTE L, XL, 4A, 4B, 6, A.1	& nultiplexer I/F		
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
□ Worldwide ☑ Canada □ Europe (all)   ☑ U.S. (all regions) ☑ Mexico □			
Support Services Available:			
□ phone-in support     □ on-site consulting     □ on-site systems engineers	☑ remote dial-in ☑ program modification		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site	Price: \$2,000/day		
Documentation Available: Reference Manual	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:			
ADDITIONAL INFORMATION			
DECOMPOSITION TITLES CTATEMENT			

HP USE ONLY

I.D. Code:

Application Code: 52.11020

Expiration Date:

Product Name:

OTEXT

Mainframe(s):

HP-1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### PRODUCT DESCRIPTION:

QTEXT is a text processor which accepts commands and text mixed in an EDIT/1000 file, and formats the data to a device or file. QTEXT is oriented towards program documentaion and manual generation, but has features which allow C & L Systems' QMAIL (a mail list & letter generation package) to use it for bulk letter mailing applications (see QMAIL).

#### FEATURES:

QTEXT has control over page length, line length, text offset, heading margins and footing margins. It allows head and foot titles, with automatic page numbering.

Line filling (using words to make a line the maximum length) and right margin justification are independently selectable.

Up to ten tabstops may be set. Tabstops can be any mix of left justified, centered, or right justified.

A line may be temporarily indented (as for a paragraph start) or indenting may be set for a group of lines.

Another feature is the ability to center a user determined number of lines; such as for a title.

A very powerful feature is the 'reqisters'. These registers are used to label chapters and paragraphs; i.e. 1.2. Chapter 1. There exists a box level, also, which will automatically draw a box around the set register levels and the user supplied label. In addition, the labels are all placed in a table of contents, which is printed at the end of processing.

A special feature allows the specification of Index tags which are saved until the end of processing, where they are printed, in alphabetical order, with their respective page numbers.

Retail Price:

\$995

Company Name:

Contacts:

Address:

Combs & LaRobardiere Systems, Inc.

Don LaRobardiere

55 Peach Tree Court

Bob Combs

Hawthorne, New Jersey 07506

Telephone:

(201) 427-5890

SYSTEM REQUIREMENTS			
Computer Model: IIP 1000	Peripherals:		
Memory: 20 pages			
Operating System: RTE L, XL, 4A, 4B, 6, A.1			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
☐ Worldwide ☐ Canada ☐ Europe (all) ☐ U.S. (all regions) ☑ Mexico ☐			
Support Services Available:			
<ul> <li></li></ul>			
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site	Price: \$2,000/day		
Documentation Available: Reference Manual	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:			
ADDITIONAL INFORMATION			
RESPONSIBILITIES STATEMENT			

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11021

Expiration Date:

Product Name:

QMAIL

Mainframe(s):

HP-1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PRODUCT DESCRIPTION: QMAIL is an add-on package to QUESTOR (an online multi-user data entry and retrieval subsystem used with HP's INAGE 1800). It penalts information retrieved thru "query like forms" to be easily passed to CTEXT (an easy to use text processor) or to user written programs. This penalts data extracted from a data-base to be used in generating custom reports, personalized letters, mailing lists, etc. All data is identified by simple "data set.data item"declarators, as

defined in an IMAGE 1990 schema. These declarators are specified in a transfer data command file, built using the standard editor. Also specified in this command file are, the associated form form which data is to be taken, program to schedule with wait, input file name, output file namr, and control flag.

The tenninal interface (OMXXX) supplied supports standard QUESTOR forms as well as transfer data command files. Single or continuous data transfers can be instituted once the first find mask operation has been completed. QMxxx passes a command buffer to a user written program. A subroutine (PCIUF) is provided to extract text strings from form fields via data set.data item declarators if they were specified in the data command file. Also input and output file names, control function flags, and form exit state flags can be obtained via a call to CCPAR. QTEXT already has these calls implemented. To pickup a specific data item one only has to use the following format in a unprocessed text file, ".si data set.data item".

#### FEATURES:

Identification of field text strings via data set.data item declarators, provides flexibility in form to user program linkage.

Single or continuous data transfer operations permit the entire data base to be searched for items meeting the qualifier mask. Thus each record meeting the criteria can be automatically covered.

Any user program can easily interfaced via supplied subroutines.

Ø7506

QTEXT has been implemented with a ".si" command to easily handle the linkage of text with "CMXXX".

Retail Price:

\$500

Company Name:

Contacts:

Combs & LaRobardiere Systems, Inc.

Don LaRobardiere

Address:

55 Peach Tree Court

Bob Combs

Hawthorne, New Jersey

Telephone:

(201) 427-5890

SYSTEM REQUIREMENTS			
Computer Model: HP 1000	Peripherals: HP block mode CRTs		
Memory: 18 pages	point-to-point multiplexer I/F		
Operating System: RTE XL, 4A, 4B, 6, A.1, L	multi-point		
Other Software: HP IMAGE 1000 C & L Systems' QUESTOR			
C & I. Systems' OTEXT CUSTOMER SUPPORT			
Geographic Area Supported:			
□ Worldwide ☒ Canada □ Europe (all)   ☒ U.S. (all regions) ☒ Mexico □			
Support Services Available:	CV company dialin		
<ul><li>☑ phone-in support</li><li>☐ on-site consulting</li><li>☑ on-site systems engineers</li></ul>			
Additional Support Information and Pricing:  CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site	Price: \$2,000/day		
Documentation Available: Reference Manual	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE OF FIRS	ST INSTALLATION:		
ADDITIONAL INFORMATION	•		
RESPONSIBILITIES STATEMENT			



#### **HP USE ONLY**

I.D. Code:

Application Code: 52.11022

Expiration Date:

Product Name:	Mainframe(s):
QSORT	HP-1900

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PNODUCT DESCRIPTION: QSORT performs a quick file sort. A partion exchange sort is performed on keys in a user specifiable scratch buffer. Files are then merge sorted. Numeric or ascii type sorts can be specified. FEATURES:

Modifiable scratch buffer size permits customization of the QSORT function size to suit customers application.

Speed vs. size trade-offs can be easily had for different applications. Type of sort is specifiable (numeric or ascii).

Variable and fixed length records up to 132 characters are handled. Extensive user error reporting.

Retail Price:

Address:

\$500

Company Name:

Combs & LaRobardiere Systems, Inc.

55 Peach Tree Court

Telephone: (201) 427-5890

Hawthorne, New Jersey

Contacts:

Don LaRobardiere Bob Combs

SYSTEM REQUIREMENTS			
Computer Model: HP 1000	Peripherals:		
Memory: 3 pages minimum			
Operating System:  RTE L, XL, 4A, 4B, 6, A.1			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
	e (all)		
☐ Midwest ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Support Services Available:	Australia/N.2.		
☐ phone-in support ☐ on-site consulting ☐ on-site systems engi	☐ remote dial-in ☐ program modification		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: On-site	Price: \$2,000/day		
Documentation Available: Reference Manual	Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: DATE	OF FIRST INSTALLATION:		
ADDITIONAL INFORMATION			
RESPONSIBILITIES STATEMENT This software was developed by an independent software supplied.	or for operation on HP aguinment. The supplier is solely		

HP USE ONLY

I.D. Code:

Application Code: 52,11023

Expiration Date: 9783

Product Name:

WPIT/1000 Word Processing Package

Mainframe(s):

L, A, M, E, & F-Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

WPIT/1000 is the first truly interactive quality word processor available to HP1000 users. It provides both the advanced processing techniques required by the demanding user without sacrificing the ease of use so valuable to the novice.

WPIT/1000 is compatible with the entire 1000 family of systems utilizing the entire HP line of CRT terminals (except the 2621) and most of the standard HP1000 system printers. The HP2601 is currently the only "letter quality" printer supported by WPIT/1000.

The user is at all times presented with a tree-structured set of powerful processing commands which may be invoked with a single keystroke. The user is not burdened with memorizing several cryptic command sequences as in many other "text processors".

The following is a partial list of the features in WPIT/1000:

Document Directory Document naming is not limited to FMP file restrictions. WPIT/1000 maintains a complete directory structure with document names up to 20 characters and optional password protection.

- Truly Interactive WPIT/1000 is "softkey" and "fill-in-the-blanks" driven making it both easy to use and powerful.

Search with or without ReplaceAutomatic hyphenation

- Automatic pagination

- Text binding

The user may specify words which must appear on the same line or phrases which must appear on the same page.

Retail Price:

\$5,000.00 (first copy) \$2,500.00 (right to copy)

Company Name:

Systems Services, Inc.

Contacts:

Dan Fishman (Pres.)

John Hensley

Address:

1630 Chambers Suite 301

Aurora, CO 80011

Telephone:

(303) 360-0616

SYSTEM REQUIREMENTS	
Computer Model: HP1000 L, A, M, E, or F	Peripherals: HP26XX Terminals
Memory: One 28-page partition per user	(except 2621) Standard line
Operating System: RTE-XL, RTE-A.1 RTE-4, RTE-6VM	printer or 2601
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	•
Worldwide □ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □	
Support Services Available:	
☒ phone-in support    ☐ mail-in support      ☒ on-site consulting    ☐ on-site systems engineers	□ remote dial-in      □ program modification
Additional Support Information and Pricing: Type 1 support (SSSlike) \$25/m0. Type 2 (CSSlike	) \$100/mo.
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On site consulting as needed	Price: Call
Documentation Available: WPIT/1000 user's guide	Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: New Product DATE OF FIRS	ST INSTALLATION: Approx. 6/82
ADDITIONAL INFORMATION	

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11024

Expiration Date:

Product Name:

INSIGHT

Mainframe(s):

HP1000 E& F Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

INSIGHT is the complete software package that not only gives the programmer a tool for developing reports, but lets any end user devise reports, quickly and effectively, without any programmer assistance.

By combining powerful features in an easily mastered package, INSIGHT stands alone in the HP1000 environment.

In effect, INSIGHT is everything QUERY is, plus much more. INSIGHT was developed with a crisp and attractive fill-in-the-blanks approach to finding IMAGE records and formatting reports. INSIGHT'S selection and reporting features let you cross data set and data base boundaries, do arithmetic, perform generic and wild card searches, without any knowledge of EDITR, EDIT, or QUERY: and with a very limited knowledge of an IMAGE data base scheme. It can be mastered by non RTE people in a matter of hours.

A schedule of some of INSIGHT's major features includes:

- \* Finding and selecting records
- \* Use up to 6 Data Sets to Find Data
- \* Use up to 66 Data Sets to Report
- \* Use up to 3 Data Bases
- \* Generic Searches Fully Supported
- \* Wild Card Searches Fully Supported
- \* Conditional Searches
- \* Comparative Searches

<u>Nulti-threading</u> Link any of up to 6 data sets in a primary selection to any 10 other data sets based on a value in a primary data set. Secondary data set values do not have to be retrievable as key items or chained items.

<u>Exclusive Selects</u> Find data in one data set and use the records found to retrieve records in other data sets without any additional operator action. No explicit linkage between data sets is necessary. (Very useful for on-line inquiry type outputs.)

Retail Price:

\$5500 Purchase

1, 2, 3, 4, and 5 years lease terms available

Company Name:

Polaris Systems, Inc.

Contacts: Chuck Nickerson

National Sales Mgr.

Address:

2100 Old Mill Plaza

Sea Girt, NJ 08750

Telephone:

(201) 449-1747

SYSTEM REQUIRE	MENTS			
Computer Model:	⊣P1000 E or F		Peripherals:	
Memory:				
Operating System: F	RTE 4 and RTE 6			
Other Software:				
CUSTOMER SUPPO	ORT		i	
Geographic Area Sup	ported:			
Worldwide	Canada  Mexico Latin America (all)	☐ Europe (all)	□ <b>Far</b>	East (all)
East	☐ Latin America (all)	[]		
South		_ [		
::: Midwest		□ South Africa	⊔ - □ Aus	tralia/N.Z.
Support Services Ava	iilable:			
	🛛 mail-in	support	□ rem	ote dial-in
x on-site consulting	□ on-site	systems engineers	☐ prog	gram modification
Phone-in suppor	nformation and Pricing: t: \$900/yr, \$75/mo for other support			
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:	Yes - 2 levels		Price:	\$400/2-day course \$495/high level
Documentation Availa	able: Yes		Price:	course
Documentation Availa	able in other languages:	No		
NUMBER OF INSTA	ALLATIONS: 22	DATE OF FIRS	T INSTALLATION	: 1980
ADDITIONAL INFO	RMATION			
RESPONSIBILITIES S	TATEMENT			



#### **HP USE ONLY**

I.D. Code:

Application Code: 52.11025

**Expiration Date:** 

Product Name:

Mainframe(s):

Transparent Activity Sampling Program (TASP)

HP1000 E & F Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Transparent Activity Sampling Program (TASP) consists of 3 monitoring modules that give the capability of analyzing your computer system's performance. Monitor 1 provides a profile of program execution by recording the status of up to 8 user defined programs. This information is reported as raw time in each of the 8 possible states (dormant, executing, I/O suspend, etc.) and as percentage of time in each state. Monitor 2 reports the availability (available, busy, down, waiting for DCPC) of each of up to 8 user defined equipment controllers (EQTs). The availability of the EQTs is reported in raw time as well as percent of time in each state. Monitor 2 also identifies EQTs with more than one pending I/O request. Monitor 3 records the amount of CPU idle time and time spent executing programs. It also determines the number of programs waiting to execute and reports the number in 3 user defined ranges. This identifies available CPU time and any program backlog.

Retail Price:

\$1,000.00 binary relocatable

\$2,500.00 source and binary relocatable

Company Name: Aurelian Corporation

Contacts: Barbara A. Case

General Manager

Address:

Laramie, Wyoming 82070

Telephone:

(307) 745-8831

P.O. Box 1265

SYSTEM REQUIREMENTS	
Manager Advisor of the Advisor of th	Peripherals: Any interactive CRT or terminal. Any 132 column printer.
Operating System: RTE IVB	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
☐ Worldwide ☐ Canada ☐ Europe (all)  X☐ U.S. (all regions) ☐ Mexico ☐	
☐ East ☐ Latin America (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
☐ Midwest ☐	
☐ West ☐ ☐ South Africa	☐ Australia/N.Z.
Support Services Available:  □ phone-in support  ☑ mail-in support	C remote diel in
☐ on-site consulting ☐ on-site systems engineers	☐ remote dial-in ☐ program modification
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available: Yes, included in price of progra- Additional copies priced separate	
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 2 DATE OF FIRST	INSTALLATION: 6/82
ADDITIONAL INFORMATION	

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11026

Expiration Date:

Product Name:

Mainframe(s):

Software Library Indexing Program (SLIP)

HP1000 E & F Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Software Library Indexing Program (SLIP) provides a means of organizing a large number of software routines (programs, subroutines and functions) by creating an easy reference subject index. A brief description of each routine is entered along with up to ten keywords which identify the subject headings under which each routine is to be filed. A user defined code is input along with the description to indicate actual routine or documentation location. When an index is printed the keywords appear as subjects in alphabetical order. Under each subject are listed descriptions of all the routines which had that subject as a keyword. All information input can be edited or deleted as desired. In addition to generating hard copy index and keyword listings SLIP provides access to the permanent index data file from an interactive terminal. Up to 10 keywords may be entered at the terminal and SLIP will scan the index and list only those routines which appear under all those keywords.

Retail Price: \$295.00 binary relocatable

\$450.00 source listing and binary relocatable

Company Name:

Aurelian Corporation

Contacts: Barbara A. Case

Address:

P.O. Box 1265

General Manager

Laramie, Wyoming 82070

Telephone:

(307) 745-8831

SYSTEM REQUIREMENTS			
Computer Model: HP1000, Models 40 & 45	Peripherals: Any interactive CRT or terminal.		
Memory: 12K memory	Any line printer or hard copy		
Operating System: RTE IVB	device; must be at least an 80 column printer.		
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □			
Support Services Available:			
<ul><li>□ phone-in support</li><li>□ on-site consulting</li><li>□ on-site systems engineers</li></ul>	<ul><li>remote dial-in</li><li>program modification</li></ul>		
Additional Support Information and Pricing:			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available:	Price:		
Documentation Available: Yes, included in price of prog	gram. Price:		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 12 DATE OF FIRST	ST INSTALLATION: 12/81		
ADDITIONAL INFORMATION			

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 52.11027

**Expiration Date:** 

Product Name:

Cartridge List Utility (CLU)

Mainframe(s):

HP1000 E & F Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Cartridge List Utility (CLU) generates an alphabetical disc cartridge directory list. Files are sorted optionally by name, security code, or by name without special prefix characters. The directory list includes the number of extents for each file. Up to 1000 files per cartridge may be listed and files may have an unlimited number of extents.

Retail Price: \$ 89.00 binary relocatable

\$450.00 source listing and binary relocatable

Company Name: Aurelian Corporation

Contacts:

Barbara A. Case General Manager

Address:

Laramie, Wyoming 82070

Telephone:

(307) 745-8831

P.O. Box 1265

SYSTEM REQUIREMENTS	
Computer Model: HP1000, Models 40 & 45	Peripherals: Any hard copy list device or terminal list device.
Memory: 17K memory	Any interactive CRT or terminal
Operating System: RTE IVB	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide □ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Available:	
☐ phone-in support	□ remote dial-in □ program modification
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available: Yes, included in price of prog	ram. Price:
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 9 DATE OF FIRST	T INSTALLATION: 2/82
ADDITIONAL INFORMATION	

#### RESPONSIBILITIES STATEMENT

Application Code:

52.12001

Mainframe(s) HP 1000 E & F-Series Program Title

**RTE Profile Monitor** 

#### **Program Description**

The RTE Profile Monitor (RPM) is a software package designed to help users to speed program execution speed for more efficient utilization of HP 1000 Computer Systems. Because program execution speed is often critical, the RPM is an important tool for users who are faced with the need to reduce execution time of their programs. The RPM can be used on any program executing under 92068A RTE-IVB or 92067A RTE-IV.

Programs spend 80% to 90% of their time in less than 5% of the code. Once identified, crucial areas of code can usually be optimized to significantly reduce overall program execution time. The RPM simplifies the location of crucial areas of code by providing a precise analysis of the activity distribution within the program.

Once the RPM has pinpointed the crucial code areas of a program, execution time can be shortened by:

- Source code modification.
- · Reprogramming in assembly language.
- · Reprogramming in microcode.

Execution time of a program written in a high-level language can often be reduced by optimizing commonly used program loops, changing buffer sizes in system calls, and restructuring crucial program algorithms. Most frequently used program code can be rewritten in assembly language for a typical three to four times improvement over high level program code. Microcode provides even more impressive improvement, typically three to five times faster than the same code implemented in assembly language. Microcode runs faster than assembly language because program instruction fetch time is largely eliminated, microcoding can specify CPU and I/O operations more efficiently than assembly language, and microinstructions can accomplish more operations in parallel. Hewlett-Packard provides a full set of tools for microcode development in the 92061A RTE Microprogramming Package

The RTE Profile Monitor User's Manual provides what-to-do instructions which are related to the various types of program code that may be taking too much execution time. This helps the user reduce program execution times with a minimum of effort.

#### **Features**

- · Interactive, conversational operation for program profiling
- Activity profiling of real-time, background, segmented, or unsegmented programs without program modification
- · Ability to profile programs written in any language
- · Wide choice of activity data collection options
- Frequency distribution and histogram profile plots
- Ability to track activity down to the individual instruction
- · Linear and logarithmic plotting of activity profiles

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						(04250)
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						(04244)
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Sample RPM Program Activity Histogram

### RTE Profile Monitor operation

The RTE Profile Monitor functions in two phases. In the first. or sample phase, the profiled program is executed while being monitored by a program called CTRAC. A second program, CPLOT, then plots the activity profile of the target program on a line printer.

Initially, CPLOT uses an instruction to instruction interval that displays an entire program, or program segment, on a single page. Both the integral of frequency distribution and a histogram are provided, showing percentage of execution time used plotted to the left of a listing of absolute and base addresses, which is easily correlated with a mixed listing of the program, as shown in Figure 1.

Areas of high activity on the initial plot can be further investigated by asking CPLOT to plot a narrower range of addresses. The new plot can have a resolution as small as one instruction, precisely pin-pointing those instructions on which the program is spending most of its time.

#### RTE Profile Monitor requirements

Operating environment. HP 1000 Computer System with disc memory and line printer operating under 92068A RTE-IVB or 92067A RTE-IV.

Priority requirements. CTRAC and D.RTR must be the only active priority 1 programs. The target program must be the only program executing at the next highest priority. No other program can be active at any priority between CTRAC and the target program. It is desirable that CTRAC and the target program be the only active programs in the system.

Minimum target program duration. Because the activity profiler uses a sampling technique, the target program should have an elapsed execution time of at least several seconds.

CTRAC Memory requirement: 9 pages (18k bytes). CPLOT Memory requirement: 15 pages (30k bytes).

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40 (2176C/D), 45 (2177C/D)

Price: \$2,100.00

HP Software Part Number: 92083A

Memory Options: See memory requirements under "RTE Profile Monitor Requirements" discussion above.

Peripherals: Hard disc memory and line printer required.

Comments:

Contact your local HP Sales Office for additional information



Application Code:

52.12002

Mainframe(s) HP 1000 E & F-Series

Program Title

RTE Microprogramming Package

#### **Program Description**

The 92061A is a support package for on-line development by the user of special microprogrammed instructions for HP 1000 Computers and Systems operating under the RTE-II or RTE-IV/IVB system.

### **Functional specifications**

#### **Environment**

92001A RTE-II system with 92002A Batch-Spool Monitor or 92001B RTE-II system or 92067A RTE-IV system, or 92068A RTE-IVB system.

#### Memory usage

The WCS driver requires 2160 bytes of resident memory. Other programs in the RTE Microprogramming Package require an 16k byte background partition in RTE-II or an 18k byte partition in RTE-IV/IVB, including the 2k bytes required for base page in each RTE-IV/IVB disc-resident partition.

#### Microprogram capacity

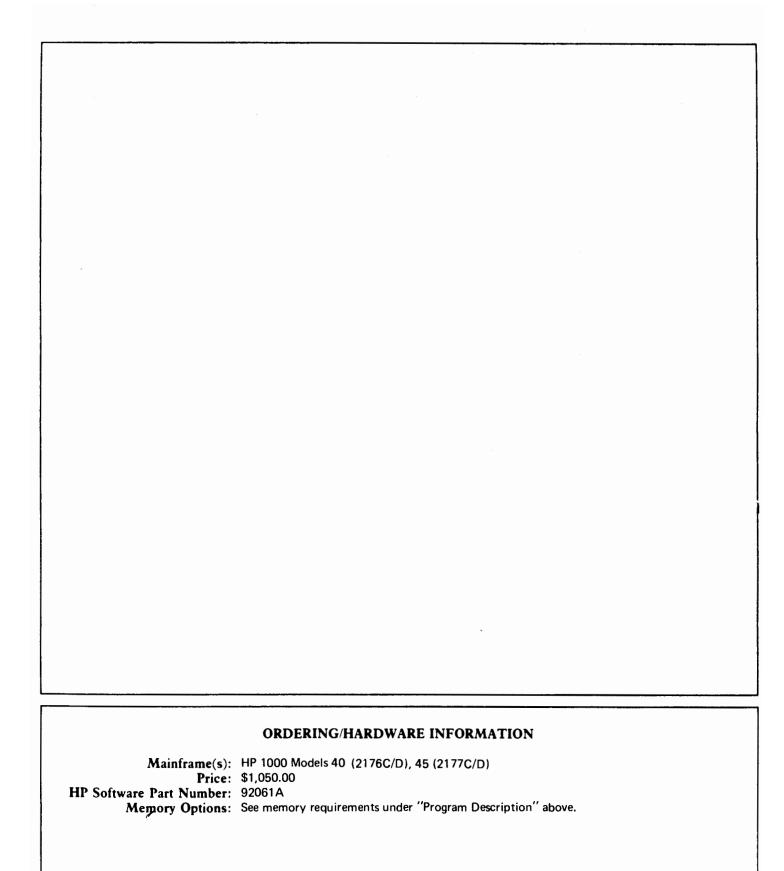
The WCS Load Utility and Driver programs work with up to three 13197A WCS boards (3072 user instructions) in the Computer.

#### System requirements

Same as 92001B RTE-II system, 92067A RTE-IV system or 92068A RTE-IVB system.

#### PROM burn tape requirement

To output PROM burn tapes, a 12926A Tape Punch Subsystem will be required.



Peripherals: 12926A Tape Punch Subsystem to output PROM burn tapes.

Comments:

Contact your local HP Sales Office for additional information

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

52.12003

Mainframe(s)

Program Title

HP 1000 F-Series

Signal/1000 Digital Signal Processing Package

#### **Program Description**

The Signal/1000 Digital Signal Processing Package consists of a comprehensive FORTRAN library that forms the foundation for all digital signal processing applications. This package also includes a set of microcoded firmware instructions that provide extremely fast processing for increased computational power. Verification programs included for testing subroutine functions also serve as simple examples for program development.

#### **Features**

- Microcoded signal processing firmware that speeds calculations
- Comprehensive documentation
- Verification programs with documented input data and output results
- Support of large (512 x 512) memory resident data arrays for image processing
- · On-line firmware diagnostics

### **Applications**

- Signal Analysis
- Speech Processing
- Seismology
- Digital Filter Design
- Image Processing

### Functional description

The Signal/1000 library is divided into eight major areas:

- Discrete (Fast) Fourier Transforms
- 2. Power Spectrum Analysis and Correlation
- Convolution
- 4. Linear Prediction Analysis
- Finite Impulse Response (FIR) Filter Design and Analysis
- Infinite Impulse Response (IIR) Filter Design and Analysis
- Cepstral Analysis
- 8. Interpolation and Decimation

These routines utilize microcoded instructions that perform the following operations:

- Complex array bit reversal
- Complex FFT butterfly
- · Real FFT phasor multiplication
- · Complex add, subtract, multiply and divide
- Complex conjugate, complement, AIMAG and CMPLX operations

Table 1. Signal/1000 FFT Execution Times (sec)

		Real		Complex FFT	
	Sample Size	Forward	Reverse	Forward	Reverse
	256	0.06	0.07	0.10	0.11
	512	0.13	0.14	0.21	0.23
1	1024	0.27	0.29	0.46	0.48
	2048	0.58	0.60	0.97	1.03
	4096	1.21	1.27	2.07	2.18
	8192	2.55	2.67		_

#### NOTES:

- 1. All times are in seconds.
- 2. "Forward" means Time to Frequency,
- "Reverse" means Frequency to Time.
- Reverse times are slightly larger due to scaling, which is performed with VIS instructions.
- Timings are for 2117F Computer with 1 megabyte of memory without fault control

#### Configuration information

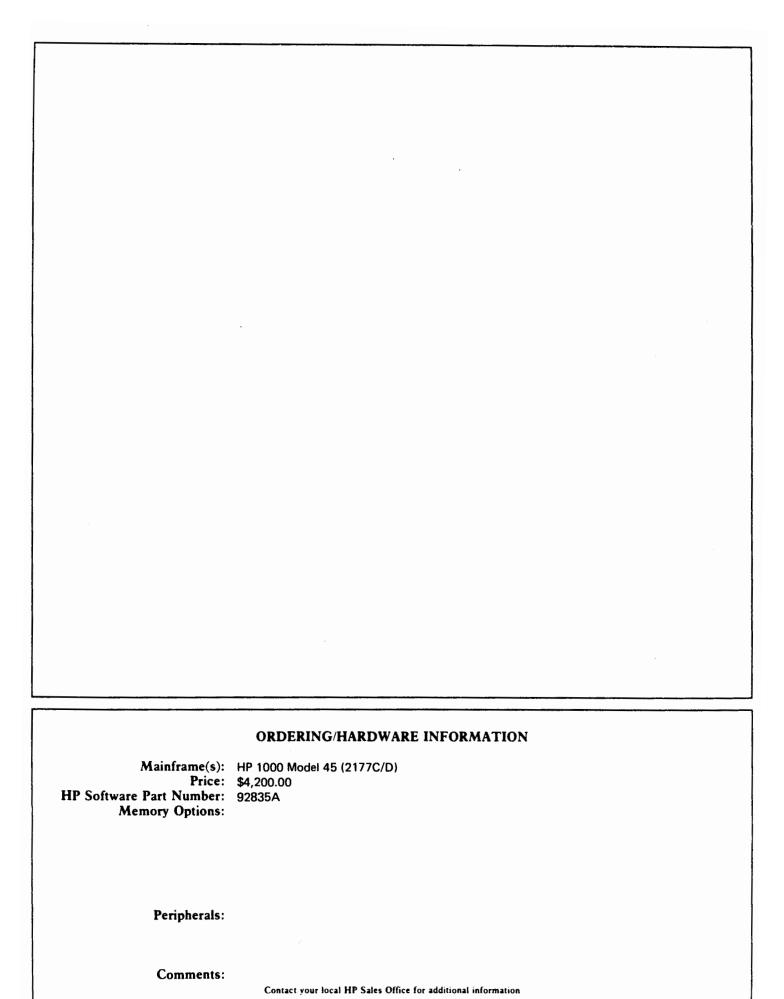
Compatibility: The 92835A Signal/1000 package is compatible with 2111F and 2117F Computers and HP 1000 Model 45 Computer Systems.

Required accessory: 12824A Vector Instruction Set and associated 12791A Firmware Expansion Module.

Control store location requirement: Four 256 word modules (56 through 59) in 2111F/2117F Computer.

Current required from +5V computer power supply: 3.32A, including 1.2A base requirement for the 12791A Firmware Expansion Module, 1.06A for the 1k words of ROM storage required by the 12824A Vector Instruction Set, and 1.06A for the 1k words of ROM storage required by the Signal/1000 firmware.

Software required: 92068A RTE-IVB operating system and 92834A FORTRAN 4X compiler. The Signal/1000 subroutines are also callable from Pascal/1000 and BASIC/1000D.



Application Code:

52.12004

Mainframe(s) HP1000 A, E, F & L-Series Program Title

GRAPHICS/1000-II Device-independent Graphics Library (DGL)

#### **Program Description**

The 92841A Device-independent Graphics Library (DGL) is an excellent foundation for computer graphics applications on HP1000 computer systems. DGL is a computer graphics tool consisting of a set of procedures called from an application program. It provides powerful, yet fundamental graphics functions and device support suitable for both data display and design graphics applications. GRAPHICS/1000-II DGL is also functionally identical to GRAPHICS/ 9000 DGL available on HP9000 computer systems with the HP-UX operating system. Using DGL will reduce the effort required to transport computer graphics applications between HP1000 and HP9000 computer systems.

The 92841A DGL operates with RTE-A.1, RTE-6/VM, RTE-L, RTE-XL and RTE-IVB operating systems

#### FEATURES

- Device independent graphics input and output for simplified development of graphics applications
- Graphics work station capability provides a flexible operator environment without additional programming
- Output primitives include: Move, Draw, Polyline, Polygon, Hardware Text, and Alphanumeric Text
- Color modeling capability using either RGB or HSL models
- Input functions include: Button, Locator, Valuator, and Keyboard
- Efficient design for fast execution
- Callable from FORTRAN, Pascal, BASIC/1000C, and Assembly language.

#### DEVICE INDEPENDENCE

GRAPHICS/1000-II DGL is carefully structured to free the application program from dependence on any on graphics peripheral. This means that DGL allows application programs to operate any GRAPHICS/ 1000-II supported device with little or no application code changes. Device independence reduces the application development time to support multiple devices or change devices. It also produces simpler application software for reduced software documentation and maintenance costs. New graphics device support will be added to DGL on a continuing basis. Customers enrolled in HP support services will receive new device handlers and other enhancements as they are released.

#### GRAPHICS WORK STATIONS

The workstation capability of GRAPHICS/1000-II DGL allows users to mix and match devices to create their own workstation environment. A workstation is a collection of one or more real graphics devices that function cohesively under GRAPHICS/1000-II control. A work station may consist of one graphics display device, one locator, one valuator, one keyboard, and alphanumeric message device. For example, a user may configure any number of work stations by adding graphics tablets (locators), changing displays, and swapping menu devices (buttons), with little or no application code change. Locators (digitizers) may provide cursor tracking on displays with an additional application programming required. DGL provides access to one work station.

#### GRAPHICS OUTPUT PRIMITIVES

Move: The current position is set to the specified coordinates without drawing a line.

Draw: A single straight line segment is drawn from the current position to a specified point.

Marker: At least 19 different marker (stars, crosses, etc.) symbols can be drawn.

Polyline: A connected line segment sequence is drawn through a series of points.

Polygon: A closed planar figure is drawn as defined by a series of points. Various area fill colors and fill styles may be selected or defined. Polygons may be concave or convex, and self-intersecting.

Graphics Text: DGL supports creation of graphics as generated by the hardware of the graphics device.

ADDING NON-SUPPORTED GRAPHICS DEVICES

Users with non-supported graphics peripherals can use the 92843X Skeleton Device Handler product to aid their construction of DGL-compatible device handlers. The 92843A product provides FORTRAN source code for a skeleton device handler which can be tailored by the user to support a specific device for which an RTE (interface) driver already exists. The source code is accompanied by instructions to aid device handler development.

Table 1. Supported Graphics Device Configurations

	Logical	Required Interface and Cable in HP 1000		Required Driver in RTE-	
Device Product Number and Name	Device Code(s)	A/L-Series	E/F-Series	A.1,L,XL	6/VM,IVB
INTERACTIVE GRAPHICS DISPLAY TERMINALS					
2623A Graphics Terminal 2629G OEM Graphics Terminal	A,B,D,K, L,V	12005A+001	12966A and 13222C cable	ID.00 and DD.00	DVR05 or DVA05
		12040A, 12828A, and 13222Y_cable	12792A, 12828A, and 13222Y cable	IDM00 and DD.00	PVM00, DVM00, & DDV05
2647A Intelligent Graphics Terminal 2648A Graphics Terminal	A,B,D,K, L,V		12966A+001, 002, or 004		DVR05 or DVA05
2649C OEM Graphics Terminal 2649G OEM Intelligent Graphics Terminal			12792 A, 12828 A, and 13222 Y cable		PVM00, DVM00, & DDV05
GRAPHICS DISPLAY SYSTEMS					
1350S Graphics Display System w/2048 vector capacity† 1351S Graphics Display System w/8096 vector capacity	D	12009A	59310B	ID.37	DVR37
GRAPHICS PLOTTERS AND PRINTER					
7220C RS-232-C 8-Pen Plotter with HP-GL* 7220T RS-232-C 8-Pen Plotter with HP-GL & auto paper advance* 7221C RS-232-C 8-Pen Plotter w/compacted binary prog.* 7221T RS-232-C 8-Pen Plotter w/compacted binary prog. and automatic paper advance*	D,L		12966A+004 or 12966A+002, 13232N cable, and modems		DVA05
7225B Graphics Plotter w/17601A HP-IB Personality Module 7470A+002 Two-Pen Graphics Plotter 7580A+002 and 7585A+002 8-Pen Drafting Plotters 9872C 8-Pen Graphics Plotter 9872T 8-Pen Graphics Plotter w/automatic paper advance	D,L	12009A	59310B	ID.37	DVR37
2608A+210 Line Printer (raster graphics) 2608S+210 Line Printer (raster graphics)	D D		Incl. in Opt 210 12821A +001		DVB12** DVC12**
INPUT DEVICES					
9111A Graphics Tablet 9874A Digitizer	B,L,V		59310 <b>B</b>		DVR37
INTERACTIVE WORKSTATIONS					
9111A+050/1350S Interactive Workstation† 9111A+050/1351S Interactive Workstation	B,D,L,V		59310B		DVR37 with 5RQ

<sup>†</sup> Obsolete product listed here for reference only

 $Logical\ device\ codes:\ A=Alphanumeric\ Display,\ B=Button,\ D=Graphics\ Display,\ K=Keyboard,\ L=Locator,\ V=Valuator$ 

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP1000, A, E, F and L-Series with RTE-A.1, 6/VM, L, XL and IVB

Price:

\$800 on L, \$1200 on A600, \$2000 on A700, E&F, \$2500 on 900

HP Software Part Number: **Memory Options:**  92841A

ROMs:

Peripherals: See Table 1 above

Comments: Additional devices will be supported on a continuing basis.

Contact your local HP Sales Office for additional information

<sup>\*</sup> A 2635A/B+051 Printing Terminal or 264x CRT Terminal is required with the 722xC/T Graphics Plotter.

<sup>\*\*</sup> Graphics on 2608A/S also requires 48kb memory partition for vector-to-raster conversion program.

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

52.12005

Mainframe(s) HP1000 A, E, F & L-Series Program Title

GRAPHICS/1000-II Advanced Graphics Package (AGP)

#### **Program Description**

The 92842A Advanced Graphics Package (AGP) is a powerful graphics application development tool for HP1000 computer systems. AGP is a computer graphics tool consisting of a set of procedures called from an application program. AGP builds on top of the 92841A Deviceindependent Graphics Library (DGL), providing functionality similar to DGL plus advanced capabilities providing easier application development and interactive graphics functions. GRAPHICS/1000-II AGP is also functionally identical to GRAPHICS/9000 AGP available on HP9000 computer systems with the HP-UX operating system. Using AGP will reduce the effort required to transport computer graphics applications between HP1000 and HP9000 computer systems.

The 92841A AGP operates with the RTE-A.1, RTE-6/VM, RTE-XL and RTE-IVB operating systems.

#### **FEATURES**

- All the features of 92841A GRAPHICS1000-II DGL (See data sheet 52.12-04)
- ACM SIGGRAPH CORE compatibility
- Run-time device independence allows concurrent operation of multiple graphics work stations, without re-programming or re-linking the application program
- Additional software generated graphics text with six different fonts
- Two and three-dimenstional viewing transformations with perspective or parallel projections

- Full clipping capability
- Picture segment capability for fast interactive manipulation of graphics images
- Additional pick input function to allow operator interaction with picture segments
- Detailed run-time error reporting for easier program development

#### DEVICE INDEPENDENCE

GRAPHICS/1000-II AGP is carefully structured to free the application program from dependence on any graphics peripheral. This means that AGP allows application programs to operate any GRAPHICS/1000 II supported device with little or no application code changes. In addition, AGP provides run-time device independence wherein the application program need not even be re-linked to operate a different device. Concurrent output to up to eight work stations from any application program is also possible.

AGP achieves device independence by building on top of the 92841A Device-independent Graphics Library (DGL). Hence graphics peripherals supported by DGL are also supported by AGP. (See data sheet 52.12004 for additional information on device support.)

#### GRAPHICS OUTPUT PRIMITIVES

In addition to the Move, Draw, Marker, Polyline, Polygon, and Hardware Text output primitive also supported by 92841A DGL, AGP supports the stroke generation of text characters from data stored in files. Six different fonts may be used: Eurostyle, Roman Simplex, Rom Triplex, Script, Greek letter symbols and Gothic.

#### PICTURE SEGMENTS AND PICKING

The use of segments greatly simplifies the development of interactive graphics applications. Users may specify groups of output primitives, called SEGMENTS, to be stored in an AGP internal data base. A single image may contain many segments. Because each segment also has a user-assigned name, it is easily referenced by application programs to selectively highlight, delete, or make invisible any segment of the total picture. Dynamic manipulation of the display becomes a simple task.

The AGP pick function allows operators to point at picture segments, using devices such as a graphics tablet or graphics terminal cursor, and then have AGP identify the name of the operator-selected segment. Picking relieves much of the application program burden of maintaining and processing internal memory devoted to interactive functions.

#### 3D VIEWING TRANSFORMATIONS

In addition to the standard 2D viewing operations, AGP viewing operations easily generate 2D images of 3D objects viewed from any angle or position. Viewing parameters are specified by the application program to correspond to the position, angle, and type of projection. Both perspective and parallel projections are possible. As the object is drawn in 3D space, AGP displays the 2D image of the object as it would be seen from the position and angle specified.

Table 1. Supported Graphics Device Configurations

	Logical	Required Interface and Cable in HP 1000		Required Driver in RTE-	
Device Product Number and Name	Device Code(s)	A/L-Series	E/F-Series	A.1,L,XL	6/VM,IV
INTERACTIVE GRAPHICS DISPLAY TERMINALS					
2623A Graphics Terminal . 2629G OEM Graphics Terminal .	A,B,D,K, L,V	12005A+001	12966A and 13222C cable	ID.00 and DD.00	DVR05 or DVA05
		12040A, 12828A, and 13222Y cable	12792A, 12828A, and 13222Y cable	IDM00 and DD.00	PVM00, DVM00, 8 DDV05
2647A Intelligent Graphics Terminal 2648A Graphics Terminal	A,B,D,K, L,V		12966A+001, 002, or 004		DVR05 or DVA05
2649C OEM Graphics Terminal 2649G OEM Intelligent Graphics Terminal			12792A, 12828A, and 13222Y cable		PVM00, DVM00, 8 DDV05
GRAPHICS DISPLAY SYSTEMS					
1350S Graphics Display System w/2048 vector capacity† 1351S Graphics Display System w/8096 vector capacity	D	12009A	59310B	ID.37	DVR37
GRAPHICS PLOTTERS AND PRINTER					
7220C RS-232-C 8-Pen Plotter with HP-GL* 7220T RS-232-C 8-Pen Plotter with HP-GL & auto paper advance* 7221C RS-232-C 8-Pen Plotter w/compacted binary prog.* 7221T RS-232-C 8-Pen Plotter w/compacted binary prog. and automatic paper advance*	D,L		12966A+004 or 12966A+002, 13232N cable, and modems		DVA05
7225B Graphics Plotter w/17601A HP-IB Personality Module 7470A+002 Two-Pen Graphics Plotter 7580A+002 and 7585A+002 8-Pen Drafting Plotters 9872C 8-Pen Graphics Plotter 9872T 8-Pen Graphics Plotter w/automatic paper advance	D,L	12009 A	59310B	ID.37	DVR37
2608A+210 Line Printer (raster graphics) 26085+210 Line Printer (raster graphics)	D D		Incl. in Opt 210 12821A+001		DVB12** DVC12**
INPUT DEVICES					
9111A Graphics Tablet 9874A Digitizer	B,L,V		59310 <b>B</b>		DVR37
INTERACTIVE WORKSTATIONS					
9111A+050/1350S Interactive Workstation† 9111A+050/1351S Interactive Workstation	B,D,L,V		59310 <b>B</b>		DVR37 with SRC

<sup>+</sup> Obsolete product listed here for reference only.

Logical device codes: A = Alphanumeric Display, B = Button, D = Graphics Display, K = Keyboard, L = Locator, V = Valuator

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP1000 A, E, F, and L-Series with RTE-A.1, 6/VM, XL or IVB

Price: \$1600 on L, \$2400 on A600, \$4000 on A700, E&F, and \$5000 on A900

HP Software Part Number: 92842A

**Memory Options:** 

ROMs:

Peripherals: See Table 1 above

Comments: Concurrent purchase or a current revision of GRAPHICS/1000-II to operate Contact your local HP Sales Office for additional information GRAPHICS/1000-II AGP. DGL is required to operate

<sup>\*</sup> A 2635AB+051 Printing Terminal or 264x CRT Terminal is required with the 722xC.T Graphics Plotter.

<sup>\*\*</sup> Graphics on 2608AS also requires 48kb memory partition for vector-to-raster conversion program.

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

52.12006

Mainframe(s) HP1000 F. F & A Series Program Title
Symbolic Debug/1000

#### **Program Description**

Symbolic Debug/1000 is an interactive, symbolic debugger for source-level FORTRAN and Macro programs on RTE-6/VM and RTE-A.1 based HP 1000 systems. Variables are displayed or modified using names from the original program and the need for load maps and program listings is eliminated. Data types supported are one and two word integer, two, three and four word reals, logical, complex, character, and Hollerith. Symbolic Debug resides in a separate partition from the program being debugged to eliminate program code space intrusion. A singlestepping, source-line capability displays the current and adjacent lines during execution. Conditional breakpoints can be used to monitor variable values and stop the program at a specified value. Using the profiling capability, the user can determine which subroutine is using the most program time and optimize the code to decrease execution time. A small, simple command set, the use of dozens of English error messages, and an on-line "help" facility make Symbolic Debug/1000 a friendly and powerful programmer's productivity tool.

#### **Features**

- Interprets all code types and symbols used
- Can display source code during execution (FORTRAN or Macro)
- Non-intrusive no Symbolic Debug code resides in user space
- Supports EMA and RTE segmentation
- Supports all FORTRAN data types
- Program profiler isolates slow subroutines
- Source line-by-line single stepping capability
- Up to 50 conditional breakpoints to stop program at specified variable value

## Functional description

**Symbolic debug.** Symbolic Debug recognizes the names, types, and locations of all of the variables and subroutines used in the program, eliminating the need for load maps, symbol table dumps, and mixed listings. The value of a variable can be examined as fast as its name can be typed.

Interactive debugging process. The user interacts with the program as it runs. Variable values may be examined or altered while the program runs without having to insert statements into the code. Bugs can be found faster since there's no need to recompile and load every time a new bug occurs.

```
= DCOS (ANG)
  41
                IM
                    = DSIN (ANG)
                IF ( .NOT. NEW .AND. K*KO .GE. 1 ) GO TO 4
  42
        2
  43 C
                COMPUTE TWIDDLES IF NECESSARY ...
  45 C
                U(1) = DCMPLX( RE , -SIGN(1M,DBLE(K)) )
  46
                DO 3 1 = 2,L2N
  47
                U(I) = U(I-1)*U(I-1)
  49
  50 C
                BUTTERFLIES.
  51 C
                SBY2 = N
   53
                DO 7 STAGE = 1,L2N
  54
DEB.A> b 47/fft
Breakpoint set at 47/FFT
DEB.A> p
Break at 47/FFT
DEB.A> d L2N new re u(l)
L2N = 5 NEW = true
                             RE = 0.980785282244344
U(1) = (0.980785282244344, -0.195090312760225)
DEB.A> m L2N 6
1.2N: 5 => 6
DEB.A>
```

Separate partition. Symbolic Debug resides in a 32-page memory partition separate from the program. No code space is lost and no extra statements are added in order to debug. The program being debugged runs exactly the same as it would when not being debugged. No bugs are introduced by the debugger, and more importantly, no bugs disappear when the debugger is present, only to reappear when the debugger is not used. There is no need to restructure a program just to debug it.

Source-level symbolic. Symbolic Debug recognizes what line of source code is about to be executed, and identifies it on the CRT display. Programs can be debugged in the language in which they were written, without the need for inverse assemblies or mixed listings. There is no need to list files at all.

Detects RTE program violations. After a detected violation such as an attempt to access protected memory, memory locations can be examined to determine the cause of the problem. Symbolic Debug pinpoints the line of source code that caused the error, giving the operator an interactive tool for catching system violations.

Standard and conditional breakpoints. Up to 50 breakpoints enable Symbolic Debug to monitor program variables and halt program execution if a variable reaches a specified value. A large number of possible paths can be trapped and values can be quickly tracked through the program to determine where they go wrong.

Supports transfer files and message logging. Non-interactive debugging sessions may occur where users can submit debug commands in a file, and have results logged in another file. This automates the debugging process, so users don't have to wait for bugs whose symptoms may take hours or even days to occur.

**Built-in profile monitor.** Helps isolate slow parts of the program. High-level analysis of activity distribution within the program helps to identify time-consuming subroutines that should be optimized in order to improve execution time. For example:

#### Profile for program TEST

Routine	Amount	Histogram
OTEST	3900	***********
SUBR	$27^{9}o$	*******
OTEST	$16^{o}$ o	*********
UTILITY	900	****
OTES0	$3^{a}$ o	***
Other (your code)	200	**
Other (libraries)	300	***

#### Profile for module OTEST:

39% of total time spent here

Line No.	Amount	Histogram
7	20%	* * * * * * * * * * * * * * * * * * * *
8	11° o	********
c)	33°o	***********
13	36°0	***********

### Debug command summary

B <location></location>	Sets a breakpoint at location specified.
C <location></location>	Clears the breakpoint set at location specified.
D <locations></locations>	Displays variable.
E	Aborts your program and exits Debug.
G <location></location>	Allows your program to proceed from location specified.
I <f1 [f2]=""></f1>	Executes a set of commands from a file (f1) and optionally logs the output to f2.
L <location></location>	Lists a screenful of source code in your program.
M <loc> <value></value></loc>	Modifies the value of variable.
P <line></line>	Allows your program to proceed to the next breakpoint or specified line.
S	Steps to the next line of source code.
T <location></location>	Shows location executed without stopping program.
V < number>	Changes the number of source lines displayed on screen.
W	Shows the callers of the current subroutine.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP1000 Models 60 (2178A/B),65(2179A/B),6(2186A/B),16(2196A/B),

Price: \$2500 (Models 6 & 16), \$3500 (Models 17,60,65) 17(2197A/B)

HP Software Part Number: 92860A

Memory Options: See "separate partition" paragraph under functional description

ROMs:

Peripherals:

Comments:

Contact your local HP Sales Office for additional information

**HP USE ONLY** 

I.D. Code:

Application Code: 52.21001

Expiration Date:

Product Name: Mainframe(s):

AP445 Array Processor

HP9845

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Analogic AP445 Array Processor is a high-speed arithmetic unit designed to be operated in conjunction with a HP9845-Desk Top Computer. In combination with the HP9845, the AP445 peripheral provides throughput rates several hundred times faster than the stand-alone desk top computer. The combined high-speed computing system can be used to test filters, A/D converters, and other components and subsystems at speeds compatible with real time test signals. High-speed computations of FFT's, correlations, and convolutions can be performed.

#### AP445 Features

.Fast

Computes a 1024-point real FFT in 7.2 ms.

- .Large On-Board Memory 64K words of 24-bit bipolar RAM is standard.
- .Simple Hookup

Connects to the HP9845 with an HP98032A interface (purchased separately from HP), and a plug-compatible connector cable from Analogic (included).

.Low Power Consumption

Requires 130 W, nominal, from 117 Vac or 240 Bac @ 50/60 Hz (100 Vac operation optional).

#### System Software

System software for the AP445 is supplied with the hardware as standard. AP445 System software programs are resident in both the HP9845 and the AP445.

#### Application Software

The major segments of the application software are functions or subroutines which reside in the AP445 Program Memory and Data Memory during run time. A library of these functions is supplied with the AP445 as standard. Specific applications programs can be constructed from this library using HP BASIC.

#### Retail Price:

\$15,845 (Hardware) Application Packages available on request

Company Name: ANALOGIC CORPORATION Contacts: Harold Messias

Evalie Prehl

Address:

Audubon Road, Wakefield, MA.

Telephone: 617-246-0300

SYSTEM REQUIP	REMENTS							
Computer Model:	111 3043	Peripheral	ls: .Analogic AP445/w HP98032A					
Memory:	187 Kbytes							
Operating System:	HP BASIC		.I/O ROM					
Other Software:	AP445 System Software	•	.Assembly Execution ROM.					
CUSTOMER SUP	PORT	- WAL						
Geographic Area S	Supported:							
☐ Worldwide  ☑ U.S. (all regions ☐ East ☐ South ☐ Midwest ☐ West  Support Services A	Canada  Mexico Latin America (all)	Europe (all) Germany Munited Kingdom Switzerland Netherlands South Africa x France x All free Europe	☐ Far East (all)					
☼ phone-in suppo	rt 🔼 mail-in suppo	ort	☑ remote dial-in					
□ on-site consulti	ng	ms engineers	☐ program modification					
Additional Suppor	t Information and Pricing:							
CUSTOMER TRA	INING/DOCUMENTATION							
Training Available:	Wakefield, MA.		Price: \$850.00					
Documentation Av	ailable: AP445 User's Manua	1	Price: \$ 50.00					
Documentation Available in other languages:								
NUMBER OF IN	STALLATIONS:	DATE OF FIRST INSTAL	LATION: April 1979					
ADDITIONAL IN	FORMATION							
	ions have been made of the	e AP400 series (of wh	hich AP445 is a					
RESPONSIBILITIE	S STATEMENT		A					



# HEWLETT-PACKARD SOFTWARE SUMMARY

Computer Museum

Application Code:

52.22003

Mainframe(s) 9835A/9845B/C

Program Title

**HPL** to **BASIC** Translator

#### **Program Description**

The Hewlett-Packard HPL to BASIC translator helps translate programs written in HPL language for the 9825 Desktop Computer to BASIC language programs for the System 35 and 45 Desktop Computers. The translator is approximately ten times as fast as rewriting the program. For many programs, it will convert 80-90 of the HPL statements into BASIC.

The HPL to BASIC translator is a series of BASIC language programs that run in the System 35 or 45 Desktop Computer. It allows you to insert a 9825 tape cartridge into the 35 or 45 for translation without using other peripherals or storage media. Programs on the 9825 can also be transferred to the System 35 or 45 directly via an interface cable such as the HP-IB or on a flexible disc initialized in the 9825.

The translator, the first step in the translation process, eliminates the most tedious portions of translating a program: determining the conversion of statements, keying in the information correctly and establishing which portions of the program cannot be directly translated. It produces two listings, the HPL source and along side it the BASIC translation.

Because HPL and BASIC are very different in certain respects, some of the HPL will need to be converted manually. This manual translation is necessary for the HPL statements that will not translate directly and for optimizing the translated code by using BASIC whenever possible. In cases where the HPL needs to be manually translated or checked, error or warning messages will be printed directly above the affected program line on the output of the BASIC code.

With this program, an HPL program can be translated to BASIC in three easy steps. First run the translator which will convert a majority of the statements into BASIC. Then edit the translated program to correct syntax errors noted by the translator and BASIC syntaxer. The final step is to run the program to verify proper operation and detect any run-time errors not detectable from syntax.

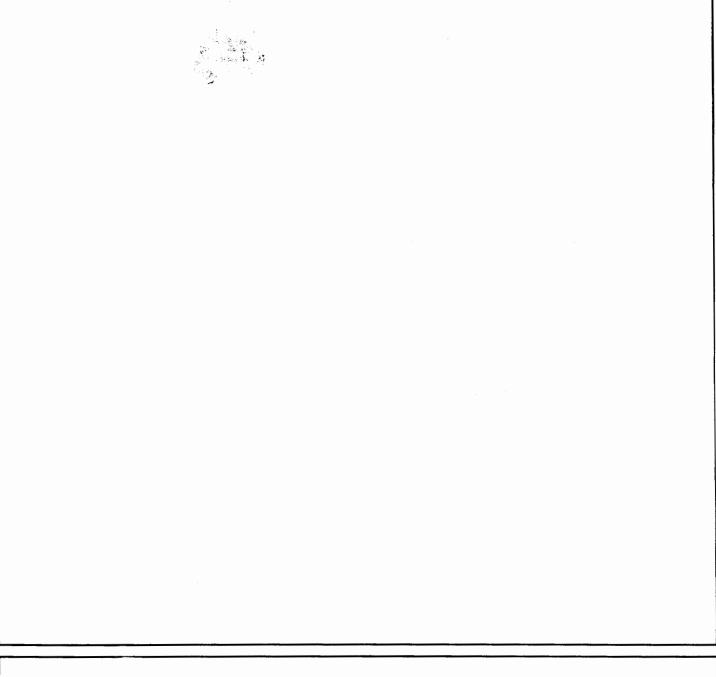
The translator will convert most of the instructions from the 9825 mainframe, flexible disc ROM and extended I/O ROM. It will also convert those HPL plotter statements from the 9825 plotter ROM that are translatable. The internal format of the HPL fmt statements in the general I/O ROM may require additional decoding as will some of the statements in the systems programming ROM. All of the Strings/ Advanced Programming ROM will be translated into BASIC by the translator.

Available as options, the following hardware may be ordered to enhance your system:

- The HP 9885M/S Flexible Disc Drive for storing larger amounts of data and to speed up the translation process.
- The Plotter ROM (98337A) if you use the 98212A or 98214A 9862A ROM or 98215A or 98216A 9872A ROM in the 9825 program.
- The Mass Storage ROM (98331A) if you use the 98217A Flexible Disc ROM in the 9825 program.

#### Included in this package are:

- Program cartridges (one master and one spare copy)
- User's manual



#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9835A/B

9845B/C

**Price:** \$500

\$500

HP Software Part Number: 09835-10030 **Memory Options:** 

09845-10130

ROMs:

**Peripherals:** 9866B, 9871A, 2631A or

9866B, 9871A, 2631A/G or

7245A

7245A

Comments:



52.22004

Mainframe(s) 9825B/S, 9835A, 9845B Program Title

Model 9030 System Exerciser

#### **Program Description**

This software is provided with each Model 9030 configuration of the 9825B/S, HP 9845 or HP 9835 Desktop Computer. The Model 9030 is a complete Measurement and Control System that consists of a 9825B/S, HP 9835 or HP 9845 Desktop Computer sitting atop a special roll-around cabinet that contains a specially configured HP2240A Measurement and Control Processor, power supplies and a set of Signal Conditioning Cards.

The System Exerciser software provides the following capabilities:

#### System Self-Testing

The software supplies a series of tests that verify the proper functioning of the HP-IB interface and the 2240 Control Card. It also optionally tests any analog input, digital output or common interrupt in the system. All error messages are numbered for quick reference to the Error Message section in the software manual which further defines the error and suggests corrective actions you should take.

#### System Exerciser Routines

Allows you to verify the proper operation of any/all channels in the system regardless of the Function Card or Signal Conditioning Card used. These routines require no programming expertise or in-depth knowledge of the Model 9030. However, you must install the appropriate instrumentation to measure a stimulus output and input a signal. Sample connections are given in the Manual.

The software will also direct you to the appropriate screw terminals for connecting your instrumentation. These routines are also useful in performing simple measurements and/or experiments. They provide an effective learning tool.

#### Calibration Routines

Performs an adaptive temperature drift correction of every analog input Function Card present in the 2240A and displays the result on the CRT or LED readout.

#### **Configuration Routines**

Provides the capability to print/display the individual channel definitions (i.e. screw terminal connections) for every channel in the system as well as the Function Card and Signal Conditioning Card configurations.

Package includes: System Exerciser Tape, Model 9030 Introduction and System Exerciser Manual (09835-10201 for the System 35 and 45, 09825-10201 for the 9825).

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9825B/S

Price:

\$500.

09825-10200

**HP Software Part Number: Memory Options:** 

Comments:

23k bytes

9835A/B or 9845B

\$500

09835-10200

49k bytes (9835)

187k bytes (9845)

ROMs: 98412A I/O

Peripherals: Built-in thermal line printer,

built-in tape cartridge drive and

98034A HP-IB Interface required.

Built-in thermal line printer,

built-in tape cartridge drive and 98034A HP-IB Interface required.

See Model 9030 Pricing Information/Ordering Guide (Form No. 5953-4521D).

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:			
	52.22005		

Mainframe(s) Series 200 Program Title

9835/45 TO Series 200 BASIC LANGUAGE TRANSLATOR

#### **Program Description**

The 9835/45 to Series 200 BASIC Language Translator Pack is a set of high level BASIC programs that are designed as aids in conversion of programs from the BASIC language of the 9835 and 9845 into the advanced BASIC of the Series 200 Computer. The two languages are different enough that the conversion process may not be complete, and the translated code will require manual correction and optimization after the translator has converted the majority of the code.

You will typically need to complete the translation y hand for about 5% of the BASIC lines in your program. You may also wish to optimize the translated code, where possible, to utilize the added power of the Series 200 advanced BASIC language. A chapter in the pack's manual contains information on program optimization. The translator itself should be viewed as the first step in the translation process, and, thus viewed, can be a very useful tool. Up to a 90% time savings can be realized by using the translator rather than rewriting a program to run on the Series 200 Computer.

This translator can also read 9835 and 9845 typed DATA files that reside on an 8" flexible disc and

translate them into data files for the Series 200 Computer.

To use this pack, you need a Series 200 Computer with the BASIC 2.0 operating system and 150K bytes of user read/write memory for program storage. You also need a 9835 or 9845 source machine with an HP-IB interface card and I/O ROM, or an HP9895 flexible disc drive with the program or data file on an 8" disc, or a program listing so that the program may be typed on the Series 200 keyboard. The data file translator portion of the pack requires an HP9895 flexible disc drive.

# ORDERING/HARDWARE INFORMATION Mainframe(s): Series 200 with BASIC 2.0 operating system

**Price:** \$250.00

HP Software Part Number: 09800-10390, 09800-10590, 09800-10690

Memory Options: At least 150K bytes of user R/W memory

Language/ROMs:

Peripherals: HP9895 flexible disc drive for data file translation

Comments:

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:		
52.42001		

Mainframe(s) **HP 9000 Models 20,30&40** 

Program Title

GRAPHICS/9000 Device-independent Graphics Library (DGL)

#### **Program Description**

The GRAPHICS/9000 Device-independent Graphics Library (DGL) is an excellent foundation for computer graphics applications on HP 9000 computer systems with the HP-UX Operating System. DGL consists of a set of procedures called from an application program. It provides powerful, yet fundamental graphics functions and device support that are suitable for both data display and design graphics applications. GRAPHICS/9000 DGL is also functionally identical to GRAPHICS/1000-II DGL which is available on HP 1000 Computer Systems. Using DGL reduces the effort required to transport computer graphics applications between HP 9000 and HP 1000 Computer Systems.

The 97074A single-user DGL operates with the 97070A and 97079A single-user HP-UX Operating System. The 97084A multi-user DGL operates with the 97080A or 97089A multi-user HP-UX Operating System.

#### **Features**

- Device-independent graphics input and output for simplified development of graphics applications.
- Graphics workstation capability provides a flexible operator environment without additional programming.
- Output primitives include: Move, Draw, Polyline, Ploygon, Hardware Text and Alphanumeric Text.
- Color modeling capability using either RGB or HSL models.
- Input functions include: Button, Locator, Valuator and Keyboard.
- Efficient design for fast execution.
- Multilingual user programming in FORTRAN, Pascal and C.

#### Device Independence

GRAPHICS/9000 DGL is carefully structured to free the application program from dependence on any graphics peripheral. This means that DGL allows application programs to operate any GRAPHICS/9000-supported device with little or no application code changes. Device independence reduces the application development time to support multiple devices or change devices. It also produces simpler application software for reduced software documentation and maintenance costs. New graphics device support will be added to DGL on a continuing basis. Customers enrolled in HP Support Services will receive new device handlers and other enhancements as they are released.

#### **Graphics Workstations**

The workstation capability of GRAPHICS/9000 DGL allows users to mix and match devices to create their own workstation environment. A workstation is a collection of one or more real graphics devices that function cohesively under GRAPHICS/9000 control. A workstation may consist of one graphics display device, one locator, one valuator, one keyboard and an alphanumeric message device. For example, a user may configure any number of workstations by adding graphics tablets (locators), changing displays and/or swapping menu devices (buttons) with little or no application code change. Locators (digitizers) may provide cursor tracking on displays with no additional application programming required. DGL provides access to one workstation.

#### **Graphics Output Primitives**

Move: The current position is set to the specified coordinates without drawing a line.

Draw: A single, straight line segment is drawn from the current position to the specified point.

Marker: A least 19 different marker symbols (stars, crosses, etc.) can be drawn. Polyline: A connected line segment sequence is drawn through a series of points.

Polygon: A closed planar figure is drawn as defined by a series of points. Various area fill colors

and fill styles may be selected or defined. Polygons may be concave or convex and

self-intersecting.

Graphics Text: DGL supports creation of graphics as generated by the hardware of the graphics device.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Model 20, 30 and 40

Price: \$1000. (97074A, single-user), \$500. (97074R/M, single user)

\$2500. (97084A, multi-user), \$1200. (97084R/M, multi-user)

**HP Software Part Number:** 97074A,R or M (single-user)

97984A,R or M (multi-user)

Memory Requirements:

Displays: HP 9020B, HP 9020C; Terminals: HP 2623A, 2627A, 2647F Plotters: HP 7470A, 9872C/T, 7580A, 7585A Input: HP 9111A Peripherals:

Additional devices will be supported on a continuing basis. Comments:

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:		
	52.42002	

Mainframe(s)	
HP 9000 Model	20

Program Title

**BASIC 3D Graphics** 

#### **Program Description**

The BASIC 3D Graphics System provides high performance graphics for the engineer or scientist. The key to this performance is how quickly the memory-based BASIC language can execute graphic statements on the Model 20's intelligent color and monochromatic displays. With BASIC graphics, you can choose between two-dimensional or three-dimensional transformation algorithms to easily convert the coordinates of a programmer's application into a two dimensional projection.

The HP 9000 BASIC 3D Graphic System has all the functionality of the SIGGRAPH CORE standard. This feature set includes a comprehensive set of clipping and viewing functions. Additional features are:

- Ability to use data arrays for storage and plotting graphic objects.
- Parallel or perspective projections.
- Full clipping capability.
- All Model 20 displays support simultaneous and independent handling of graphics and alphanumerics to improve user interaction.
- Besides the standard text font, HP 9000 BASIC lets the programmer design his own text fonts. A typical font is output at a rate of 550 char./sec. This font can then be viewed and rotated like any other 3D object.
- The HP 9000 supports a full array of graphic input and output devices and one set of unified statements to handle these devices. This feature provides for easy I/O redirection and plotting to multiple devices simultaneously.

The ability to store objects in data arrays distinguishes the HP 9000 BASIC system as a tool for object-oriented graphics. This tool gives the programmer ability to create objects quickly and easily.

Scale, rotate and translate modeling transformations are provided to allow "instancing" and nested definitions of graphics objects. Once the object has been created, BASIC lets you pivot it, view it from any angle, or even look at it from the inside out. The IMAGE Data Base Management's ability to store data arrays combines nicely with the graphics system to provide graphics data bases.

With the BASIC 3D Graphics package you can expect the following performance:

	9020B High-performance Monochromatic	9020C High-performance Color
2-D DRAW	3100 v/sec.	3100 v/sec.
3-D DRAW	2250 v/sec.	2250 v/sec.
1/4" octagon area fills/sec.	63	40
Circles/sec. (60 sides, unfilled)	59	59
2-D Matrix plot No		
pen control	5600 v/sec.	5600 v/sec.
Pen control	4150 v/sec.	4150 v/sec.
3-D Matrix plot		
No pen control	3300 v/sec.	3300 v/sec.
Pen control	2680 v/sec.	2680 v/sec.
2-D Absolute Matrix plot		
½" vectors	9400-9600 v/sec.	9400-9600 v/sec.
1" vectors	7200-7400 v/sec.	7200-7400 v/sec.

Note: Rates assume 2 in. vectors or less.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Model 20 (only)
Price: \$3025.("A" product), \$1515. ("R & M" product)

HP Software Part Number: 97052A/R/M

**Memory Requirements:** 

Mass storage: 7908/11/12P, 7933H, 82901/2M, 9895M, 7971A Printers/Plotters: 2631B/G, 7470A, 7580A, 7585A, 9872C/T Peripherals:

Misc.: 9111A, 97098A

Comments:

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

52.42003

Mainframe(s) HP 9000 Models 20,30&40 Program Title

GRAPHICS/9000 Advanced Graphics Package

#### **Program Description**

The GRAPHICS/9000 Advanced Graphics Package (AGP) is a powerful graphics application tool for HP 9000 Computer Systems using the HP-UX Operating System. AGP consists of a set of procedures called from an application program. It builds upon the HP 97074A and 97084A Device-independent Graphics Library (DGL). It provides a functionality that is similar to DGL plus advanced capabilities for easier application development and interactive graphics functions. AGP is also functionally identical to GRAPHICS/1000-II AGP available on HP 1000 Computers. AGP reduces the effort required to transport computer graphics applications between HP 9000 and HP 1000 Computer Systems.

The 97075A single-user AGP operates with the 97070A or 97079A single-user HP-UX Operating System. The 97085A multi-user AGP operates with the 97080A or 97089A HP-UX Operating System.

#### **Features**

- All the features of 97074A or 97084A GRAPHICS/9000 DGL.
- ACM SIGGRAPH CORE compatibility.
- Run-time device independence allows concurrent operation of multiple graphics workstations without re-programming or re-linking the application program.
- Additional software-generated graphics text with six different fonts.
- Two- and three-dimensional viewing transformations with perspective or parallel projections.
- Full clipping capability.
- Picture segment capability for fast interactive manipulation of graphics images.
- Additional pick input function to allow operator interaction with picture segments.
- Detailed run-time error reporting for easier program development.

#### Device Independence

GRAPHICS/9000 AGP is carefully structured to free the application program from dependence on any graphics peripheral. This means that AGP allows application programs to operate any GRAPHICS/9000-supported device with little or no application code changes. In addition, AGP provides run-time device independence wherein the application program need not even be re-linked to operate a different device. Concurrent output of up to four workstations from any application program is also possible.

#### **Graphics Output Primitives**

In addition to the Move, Draw, Marker, Polyline, Polygon and Hardware Text output primitives (also supported by 97074A and 97984A DGL), AGP supports the stroke generation of text characters from internal data storage. Six different fonts may be used: Eurostyle, Roman Simplex, Roman Triplex, Script, Greek Letter Symbols and Gothic.

#### Picture Segments and Picking

The use of segments greatly simplifies the development of interactive graphics applications. Users may specify groups of output primitives (called segments) to be stored in an AGP internal data base. A single image may contain many segments. Because each segment also has a user-assigned name, it is easily referenced by application programs to selectively highlight, delete or make invisible any segment of the total picture. Dynamic manipulation of the display becomes a simple task.

The AGP pick function allows operators to point at picture segments, using devices such as a graphics tablet or graphics terminal cursor, and then have AGP identify the name of the operator-selected segment. Picking relieves much of the application program burden of maintaining and processing internal memory devoted to interactive functions.

3D Viewing Transformations

In addition to the standard 2D viewing operationa, AGP can easily generate 2D images of 3D objects viewed from any angle or position. Viewing parameters are specified by the application program to correspond to the position, angle and type of projection. Both perspective and parallel projections are possilbe. As the object is drawn in 3D space, AGP displays the 2D image of the object as it would be seen from the position and angle specified.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

HP 9000 Models 20, 30 and 40

Price:

\$2000. ("A" product, single-user); \$5000. ("A" product, multi-user);

\$1000. ("R & M" product, single-user); \$2500. ("R & M" product, multi-user)

**HP Software Part Number:** 

97075A/R/M (single-user),

97085A/R/M (multi-user)

Memory Requirements:

Peripherals:

See Data Sheet 52.42001 GRAPHICS/9000 DGL for list of

supported peripherals.

Comments: Concurrent purchase or a current revision of GRAPHICS/9000 DGL is required.

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

52.92001

Mainframe(s) **9826A. 9836A** 

Program Title

InteGraL/60 Interactive Graphics Library

#### Program Description

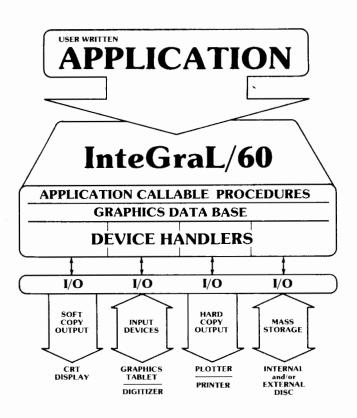
InteGraL/60 is a 2-D Interactive Graphics Library comprised of 81 Pascal procedures. This extension to the Pascal language in an HP 9826A or 9836A allows a user to develop a graphics application program in a straightforward manner. InteGraL/60 provides device independence, graphics primitives and segments, graphics functions, a graphics data base, and an organized structure for graphics application programs. InteGraL/60 allows for a high degree of interactivity with the 1300 Series Large Screen displays. These vector-based displays provide for real-time transformations of complex objects via InteGraL/60 procedures. InteGraL/60 is intended to be used as the foundation for high performance graphics application packages.

#### **Features**

- 81 Pascal procedures for simplified development of high performance graphics applications
- Primitive generation with various line types, text and polygons
- Picture segmentation for fast manipulation of graphical objects
- Graphics data base provides storing and manipulation of graphics data
- Device independent structure in the data base supports a broad range of peripherals
- Established HP-IB and GP-IO drivers eliminate their creation by the application programmer
- Support for vector-based displays and data tablets for high speed interactivity

# **Graphics Workstation Concept**

InteGraL/60 functions in a Pascal-based 9826A or 9836A. Using this powerful desktop processor for computation, keyboard control and peripheral I/O, the user has available a single user, stand alone graphics workstation. Coupling the 1360S Graphics Display System with the 9111A Graphics Tablet, full interactive performance can be viewed on a high resolution display. The vector-based display is interfaced via a configured 16-bit parallel interface to accomplish this high speed performance. Also supported by the workstation is an HP-IB interface for the graphics tablet, plotters, printers and mass storage peripherals. The display on the 9826A or 9836A is supported like a plotter; interactive functions of drag, stretch and pivot are not implemented.



## Interactive Performance

InteGraL/60 in conjunction with a 1360S Graphics Display System provides for real-time interactivity. Implementing drag, stretch or pivot commands in InteGraL/60 allows the user to translate, scale or rotate complex figures on the display via user manipulation of the tablet stylus. This high degree of interactivity is enhanced by a 16-bit parallel interface to the large screen display system.

# **Graphical Data Base**

InteGraL/60 maintains a graphical data base in the 9826A or 9836A. The picture is not displayed or plotted from this data base until an InteGraL/60 display or plot command is implemented. The user can manipulate this data base to transform, scale or rotate the drawing. Windowing and viewporting is provided to allow a correct representation of the object on the various devices.

# **Graphics Primitives and Segments**

For constructing a drawing, InteGraL/60 provides lines, text and polygons. There are seven line types with control of length and spacing of the various dashed types. Stick, Roman, Script and Gothic texts are available. The text can be justified, slanted, scaled and rotated. Polygons can include regular or irregular closed figures with six fill types callable from InteGraL/60 commands. Programmable intensities are available for these primitives. These primitives are organized into drawing segments.

Segments can consist of primitives and/or references to other segments.

#### Other Functions

InteGraL/60 provides a means for the user to edit the drawing and control peripherals. File management and a broad range of error messages are also available. These functions give the user full control of the drawing in the application program.

Product and Configuration Information

Product Number	Description	Required Option	Required Interface
9826A/36A	Desktop Computer Mainframe	98261A Opt 715 Pascal 98256A 256K RAM (2 Req'd for Pascal)	98622A GPIO
1360S	Graphics Display System, Interconnect cables and 52113A InteGraL/60 Software		
9111A	Graphics Tablet		

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9826A, 9836A

Price: \$1500

HP Software Part Number: 52113A (Included in 1360S Display System)

Memory Options: 98256A 256K RAM Memory board; two required for Pascal

9885M Flexible Disc Drive Master (98620A DMA requied)

9895A Flexible Disc Memory

ROMs:

Peripherals: 7245B Thermal Plotter/Printer

7580A/7585A 8-Pen Drafting Plotter

9872C/T 8-Pen Vector Plotter

9874A Digitizer

Options for 14" or 21" Large Screen Display

Comments: Supported on Pascal Language System, 98621A Opt 715



53.12001

Mainframe(s)
HP 1000 L-Series

Program Title

RTE-L and RTE-XL Real Time Executive Operating Systems

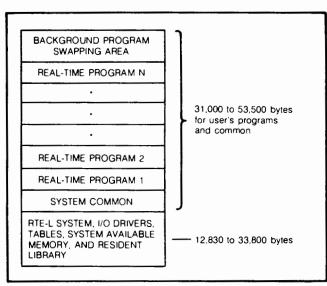
#### **Program Description**

RTE-L and RTE-XL (product numbers 92070A and 92071A) are real-time operating systems for management of the operations and resources of HP 1000 Models 5, 9 and 10 Computer Systems and user-assembled systems based on HP 1000 L-Series (2103L/LK) Microcomputers. These systems provide true multiprogramming capability and may be configured as memory-based or disc based systems. RTE-L and RTE-XL differ with respect to memory capacity. RTE-L manages 64k bytes of main memory based on the standard 64k byte L-Series memory card while RTE-XL can manage up to 512k bytes of main memory based on the 12002A L-Series 128k byte XL Memory Controller Card or 12002B L-Series 512k byte High Density XL Memory Controller Card. With the 12002A controller card, memory managed under RTE-XL can be expanded from 128k bytes to 512k bytes in 128k byte increments by adding 12003A L-Series XL Memory Array Cards.

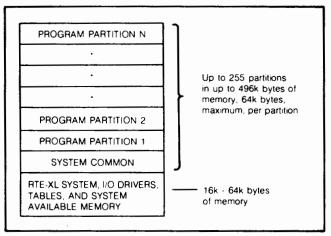
- Transportability that can be designed into user programs for the HP 1000 family of RTE operating systems
- Simplified on-line system generation and update procedure for fast, easy system generation and changeover
- Drivers that take advantage of the advanced L-Series I/O architecture, minimizing I/O processing overhead
- Modular device and interface drivers that work together to provide efficient I/O with minimal use of memory
- Support for HP-IB instruments or peripheral subsystems is included
- Optional DS/1000-IV Distributed Systems Networking (RTE-L only)
- Optional IMAGE/1000 Data Base Management
- Pascal/1000 programs can be executed, but not compiled, in RTE-L. Both compilation and execution of Pascal/1000 programs are supported in RTE-XL.

#### **Features**

- Modular design that supports a range of configurations from small, operator-less, execute-only stations to full disc-based systems with program preparation capability
- True multiprogramming with concurrent program execution
- Time, event, program-to-program, and operator scheduling of program execution
- Time slicing within each priority level (RTE-XL only)
- Complete file management capabilities for creation, maintenance, and manipulation of files on peripheral discs
- Support of up to 255 user partitions (RTE-XL only)
- Management of up to 512k bytes of memory with DMA access to any section of memory (RTE-XL only)
- Up to 64k byte user partition space (RTE-XL only)
- Multi-lingual programming in HP 1000 Assembler and (optionally) Pascal/1000\*, FORTRAN 4X, and BASIC/1000L
- High degree of program request and operator command compatibility with the HP 1000 RTE family of operating systems.
- Program development tools that include an interactive source editor (EDITR), program debugger (DBUGR), relocating loader (LOADR) and system generator (RTLGN). (EDITR, LOADR and RTLGN can be executed on RTE-IVB systems as well as RTE-L and RTE-XL systems.)



#### 64k byte RTE-L System



RTE-XL System with 128k bytes to 512k bytes of memory

## Input/Output

#### Input/output efficiency

The RTE-L/XL system fully exploits the built-in input/output efficiency of HP 1000 L-Series hardware. Direct memory access per I/O channel involves the system only at the beginning and end of an input/output operation, maximizing the CPU time available for other processing.

#### **Driver Support**

The following RTE-L/XL drivers are included for the support of interfaces and peripherals:

Interface Driver	Supported L-Series Cards	Device Driver	Supported Devices or Capabilities
ID.00	12005A Asynchronous Serial Interface	DD.00	26xx Terminals*
	Serial Interface	DD.20	Cartridge tape units in 26xx Terminals
ID 37	12009A HP-IB Interface	DD.12 DD.23 DD.30	2631A +046 Printer or 2631B +214 Printer 7970E Magnetic Tape Unit Double density, two- sided flexible disc or 7910H/7906H/7920H/ 7925H hard disc
ID.50	12006A General- Purpose Interface 12060A 55kHz Analog- to-Digital Converter 12063A Isolated Digital I/O		Interfacing of various parallel I/O devices  Measurement of analog input signals  Interfacing of digital inputs and outputs
ID.36	12008A PROM Storage Module	DD.36	Disc emulation for read-in of programs from PROM storage
ID.43	12013A Battery Backup Module		Power fail/auto restart support

<sup>\*</sup>The 26xx terminals are supported in point-to-point mode only.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Model 5 (2142A), Model 9 (2145A), Model 10 (2146A)

Price: \$2,625 (RTE), \$3,150 (RTE-XL)

HP Software Part Number: 92070A (RTE-L), 92071A (RTE-XL)

Memory Options: -011 substitutes 128k byte expandable memory and RTE-XL for 64k byte memory and

RTE-L (not compatible with option -012).

-012 substitutes 512k byte memory and RTE-XL for 64k byte memory and RTE-L

(not compatible with option -011).

Peripherals: HP 262x series terminals, HP 7910H 12M bytes fixed disc, HP 7906H 19.6M bytes

cartridge disc, HP 9895A 2.36M bytes Dual Flexible Disc, HP 7970E 1600 bpi mag tape

subsystem.

Comments: Many other HP peripherals are available.



53.12002

Mainframe(s) HP 1000 E & F-Series Program Title RTE-IVB Real-Time Executive Operating System with Session Monitor and RTE-IVE Execute-Only System.

#### **Program Description**

The 92068A RTE-IVB is a disc-based Real-Time Executive operating system used for management of the operations and resources of HP 1000 Model 40 and 45 Computer systems and user-assembled systems based on Hewlett-Packard 2108, 2109, 2111, 2112, 2113, or 2117 Computers.

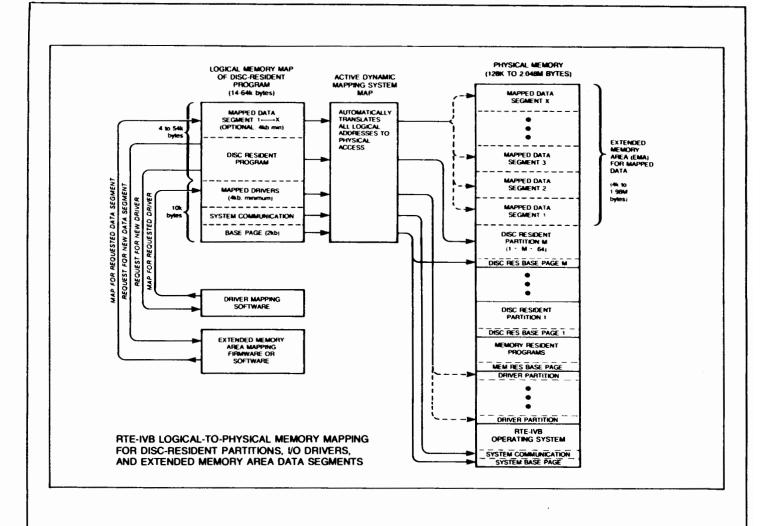
The 92068E RTE-IVE is an execute-only, memory-based subset of the 92068A disc-based RTE-IVB system. It is intended for user-assembled systems which require the power and versatility available with up to 2 Megabyte memory capacity, but without the added cost and environmental vulnerability of a disc.

#### **Features**

- Event-driven, time slice, and batch programs in same system
- Human-engineered session interface for multiple users
- Log-on/Log-off session
- · Protected file domains
- Session independence
- Interactive help facility
- User-tailorable session capabilities
- Session accounting of cpu and connect time
- Management of up to 64 disc-resident multi-user program partitions in up to 2.048 Megabytes of memory
- · Non-swappable memory resident programs
- Up to 54k bytes per partition for user's program code, independent of physical memory used by the operating system and drivers
- User addressing of extended memory area for data limited only by available memory (nearly 2 Megabytes in a 2.048 Megabyte system)
- Support for 32-bit integer and 64-bit floating point, and powerful new F-Series Vector Instruction set.
- Support for choice of 4.9, 14.7, 19.6, 50, or 120M byte system disc, the latter expandable to 960M byte capacity with additional 120M byte disc drives
- Batch-Spool Monitor for single-stream, multi-job batch processing.
- Concurrent execution and development of FORTRAN IV, Assembly language, and Pascal and BASIC (optional) programs.

- FORTRAN IV support of program access to large data arrays.
- Interactive debug package and interactive screen editor to aid program development
- Optional RTE microprogramming package for on-line development and debugging of user-microprogrammed sub-routines for faster data processing by the computer
- · Memory partition and I/O reconfigurability at boot-up
- Input/output spooling for slow peripherals.
- RTE drivers and device subroutines for supported peripherals included with the system
- Support of optional IMAGE/1000 Data Base Management System for more efficient use of data files, easier access to data
- Optional GRAPHICS/1000 Graphics Plotting Software
- Support of optional multipoint and multiplexer multiterminal interface software
- Support of optional DATACAP/1000 data capture software
- Support of multiple instrument clusters connected via the Hewlett-Packard Interface Bus (HP-IB)\*
- Support of optional DS/1000 software-firmware for communication with other HP 1000 Computer Systems and/or with HP 3000 Series II/III systems
- Low-cost support of powerful, disc-less distributed system nodes using RTE-IVE
- Remote system boot-up of E/F-Series Computers via DS/1000-IV link

\*The Hewlett-Packard Interface Bus (HP-IB) is Hewlett-Packard's implementation of IEEE Standard 488-1978, "Digital Interface for programmable instrumentation", identical ANSI Standard MC1.1.



#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Model 40 (2176C/D), Model 45 (2177C/D)

Price: \$5,250 (RTE-IVB), \$1,575 (RTE-IVE)

HP Software Part Number: 92068A (RTE-IVB), 92068E (RTE-IVE)

Memory Options: -014 deletes std. 128 kb memory & memory controller (must order at least 128 kb of other HP memory).

Up to 1024 kb standard, high performance, and fault-control

memory packages are available.

Peripherals: HP 262X, 263X, 264X series terminals, HP 7906H/HR/M/MR 19.6 Mb cartridge discs,

HP 7920H/M 50 Mb disc, HP 7925H/M 120 Mb discs, HP 7970B/E 800/1600 bpi

mag tape subsystems.

Comments: Many other HP peripherals are available.



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

53.12003

Mainframe(s)

Program Title

HP 1000 E/F-Series

RTE-6/VM Real-Time Executive Operating System with Macro/1000 Assembler

#### **Program Description**

The 92084A RTE-6/VM is a disc-based Real-Time Executive operating system used for management of the operations and resources of HP 1000 Model 60 and 65 Computer Systems and user-assembled systems based on Hewlett-Packard 2108, 2109, 2111, 2112, 2113, or 2117 Computers.

#### **Features**

- True multiprogramming provides concurrent program execution for high throughput. System easily handles independent tasks and manages up to 64 disc-resident multi-user program partitions in up to 2.048 Megabytes of main memory
- Flexible program scheduling options let you schedule programs by event, time of day, operator, another program, or in batch jobs
- Time slicing for background programs allocates resources equally to programs of equal priority
- Non-swappable memory-resident programs for fastest response to interrupts
- Virtual Memory Area (VMA) provides true demandpaged Virtual Memory for data, giving program access to a 128 Megabyte address space
- Extended Memory Area (EMA) memory resident subset of VMA — provides programs with fast access to 1.9 Megabytes of data in a 2.048 Megabyte system
- Up to 1.9 Gigabytes of disc storage utilizing automatic track switching, with single transfers of up to 64 kilobytes
- Shareable EMAs provide fast access to large common areas. Data can be shared using standard labelled common in FORTRAN or standard pointer variables in Pascal
- Extended Code Space capability using a sophisticated Multilevel Segmentation, Load-on-Call program segmentation scheme supports development or conversion of very large programs without source code modification in most cases
- Segmenting aids to help user in segmenting process.
- Operating System Accelerator Firmware increases overall system throughput when used with E/F-Series computers
- Support of up to 255 Equipment Table Entries (device controllers), each with up to 64 subchannels
- Multi-lingual programming in Macro assembly language and, optionally, FORTRAN 77, FORTRAN 4X, Pascal/1000, BASIC/1000D, and user microprogramming

- Powerful interactive screen editor and symbolic debug editor to aid program development
- Complete file management capabilities for creation, maintenance, and manipulation of files by operators or programs
- Human engineered Session Monitor multi-user interface provides features to increase system ease of use, including:
  - Access to system by password-protected accounts
  - Independence between multiple users
  - Protected file domains
  - Individually tailored environments
- Reliability features such as power fail auto restart, device time out, and failsoft memory parity protect for system integrity
- On-line system generation, I/O and memory structure reconfiguration at boot-up, and on-line driver replacement enhance system flexibility
- RTE drivers and device subroutines for supported peripherals are provided with the system, including Hewlett-Packard Interface Bus (HP-IB)\* for multiple instrument support
- Support of powerful HP 1000 software subsystems, including Image/1000, DS/1000-IV, Graphics/1000-II, and DATACAP/1000-II. (See Optional Software section for a complete list)
- Primary system supports immediate usage for system component verification and initial work on user's applications

## Family compatibility

RTE-6/VM is a member of Hewlett-Packard's compatible family of real-time executive operating systems — RTE-L, RTE-XL, and RTE-IVB. It thus shares and expands upon the capabilities of the entire RTE family.

<sup>\*</sup> The Hewlett-Packard Interface Bus (HP-IB) is Hewlett-Packard's implementation of IEEE Standard 488-1978, "Digital Interface for programmable instrumentation", identical ANSI Standard MC1.1, and IEC recommendation 625-1. (The IEC recommendation specifies use of a different connector.)

# Macro/1000 Assembler

Macro/1000 is an extensively-enhanced superset of RTE-IVB Assembly Language developed for HP 1000 Computer Systems operating under RTE-6/VM and RTE-XL. This assembler is designed to give users complete control over each computer instruction while significantly enhancing productivity through full macro capabilities and high order language type constructs. Macro/1000 offers full upward compatibility with the RTE-IVB Assembler, ASMB, yet assembly performance is approximately double that of the ASMB processor.

#### **Features**

- Structure
- Macro capabilities enhancing code portability and program readability
- Library of commonly used macros
- Conditional assembly instructions
- Modularity
- File and string manipulation utilities
- 16 character variable names
- Symbolic Addressing
- Enhanced error control and reporting
- Extremely fast compilations
- Compatibility with HP 1000 software subsystems such as ASMB, Image/1000, Graphics/1000-II, DATACAP/ 1000-II, and DS/1000-IV.

### Functional description

Macro/1000 is a superset of the RTE-IVB Assembler with the following extensions:

Powerful Macro Facility that allows the passing of constants, labels, expressions and complete instructions as parameters. Macros can be nested within macros, with the level of nesting limited only by the amount of memory in the program space. Macro/1000 further allows recursion and cross-recursion between macro definitions to enhance the programmer's capabilities.

Conditional Assembly allows the user to programmatically direct Macro/1000 to assemble or ignore a set of statements, based on the evaluation of stated condition tests within the body of the program using the AIF/AELSE/AELSEIF/AENDIF construct. This capability allows several variations of a program to be generated from the same source. Using AWHILE/AENDWHILE, users can specify a set of instructions to be assembled repetitively as long as the conditional requirements of that statement hold true. The REPEAT/ENDREP command directs the processor to assemble a set of instructions a fixed number of times.

String Manipulation Utilities: Four new assembly-time string manipulation utilities have been added, all of which may be used in expressions. The Length construct is a flexible measure of the character count in a string allowing various changes to the string's content without further edits to code used for string manipulation. The Substring utility allows the programmer to operate on segments of a character string. Upper Case Map changes lower case characters to upper case characters, and the Type attribute is used to determine whether an assembly time variable has been declared integer, character or not yet declared.

File Manipulation Instructions offer the ability to merge separate files and assemble them together as independent macros or subroutines. The INCLUDE statement will copy a designated file of code, macro definitions, or data into the source at a desired point. The MACLIB statement allows the user to name a specified file as a macro library.

New Psuedo Operations: Macro/1000 provides 23 new psuedo ops which give the programmer more control over assembly time options. Included are commands to specify where a table of literal values are located, to repeat a sequence of code, fix the size of an Extended Memory Area (EMA), or define an address to EMA.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

HP 1000 E/F Series Computers with 256 kb minimum

Price: HP Software Part Number:

\$9,000 (92084A), \$3,600 (92084R) 92084A, 92084R

Options:

-001 Upgrade discount (-3,600) for RTE-IV/IVB (non-CSS/SSS)

-002 Upgrade discount (-6,300) for RTE-IVB (with CSS/SSS)

Comments:

Macro/1000 Assembler is included with the RTE-6/VM Operating System



53.12004

Mainframe(s)

Program Title

HP 1000 A-Series

RTE-A.1 Real-Time Executive Operating System

#### **Program Description**

RTE-A.1, product number 92077A is a real-time operating system for management of HP 1000 Model 6, 16, and 17 Computer Systems and user-assembled systems based on HP 1000 A600/A700 Series (2106AK, 2136A/B, 2137A, and 2156A) Computers. This system provides true multiprogramming capability and may be configured as a memory-based or disc-based system. A useful RTE-A.1 configuration can operate in 128k bytes but will support up to 4 Megabytes.

#### **Features**

- Virtual memory for data arrays up to 12.6 Megabytes, divided between main memory and disc
- Up to 15 Extended Memory Areas for data arrays up to 2 Megabytes per program, each sharable by up to 63 programs
- Modular design that supports a range of configurations from small operator-less, execute-only stations to full disc-based systems with program preparation capability
- True multiprogramming with concurrent program execution
- Time, event, program-to-program, and operator scheduling of program execution
- Time slicing within each priority level
- Complete file management capabilities for creation, maintenance, and manipulation of files on peripheral discs
- Output spooling of files to line printer
- Management of up to 4M bytes of memory with DMA access to any section of memory
- Dynamic memory allocation, giving RTE-A.1 the most efficient memory manager available for HP 1000 computer systems
- Support of up to 255 user partitions, up to 64k bytes of user code space per partition, which may be reserved and/or allocated as needed from a dynamic memory pool
- Multi-lingual programming in Macro/1000 Assembly language and (optionally) FORTRAN 77, Pascal, BASIC/1000L, and (in A700 only) a Microprogramming package
- Substantial program request and operator command compatibility with other HP 1000 RTE operating systems

DYNAMIC MEMORY POOL FOR PROGRAM PARTITIONS AND EXTENDED MEMORY AREAS

**RESERVED PARTITIONS 1-N** 

SYSTEM COMMON

RTE-A.1 SYSTEM, I/O DRIVERS, TABLES, and SYSTEM AVAILABLE MEMORY Up to 255 partitions in up to 4 million bytes of memory

64k bytes of memory

RTE-A.1 System with 128k bytes to 4M bytes of memory

- Transportability that can be designed into user programs for the HP 1000 family of RTE operating systems
- Simplified on-line system generation and update procedure for fast, easy system generation and installation
- Drivers that take advantage of the advanced A600/A700 Series I/O architecture with DMA per channel, minimizing I/O processing overhead
- Modalar device and interface drivers that work together to provide efficient I/O
- Support for HP-IB instruments or peripheral subsystems is included
- Optional DS/1000-IV Distributed Systems Networking, Image/1000 Data Base Management, and Graphics/ 1000-II graphics software support
- Program development tools that include the Edit/1000 screen editor, program debugger (DBUGR), relocating loader (LINK) and system generator (RTAGN). (Edit/1000, LINK, and RTAGN can be executed on RTE-6/VM, RTE-IVB, and RTE-XL systems as well as RTE-A.1 systems.)

# RTE-A.1: A large-capacity, multi-user system

Large memory capacity. For management of applications running on the powerful new A600 and A700 computers, Hewlett-Packard offers a new operating system RTE-A.1. A useful RTE-A.1 system can operate in as little as 128k bytes of memory, but can manage large-system applications in up to 4 Megabytes.

Plenty of partitions for programs. RTE-A.1 can manage up to 255 different multi-user memory partitions for programs and data. Partitions can be as small as 4kb or as large as 2Mb, of which 64kb is available for program code. Extensive capacity for data is provided by Virtual Memory and Extended Memory Area capabilities as defined below. Critical programs can be made resident in fixed partitions to assure fastest possible response to requests for their execution. Other programs can be assigned partition space from the dynamic memory pool according to need, thereby making most efficient use of available memory capacity.

Lots of Virtual Memory space for data. Up to 2 Megabytes of the user's partition can be used as the working set of a disc-Virtual Memory Area (VMA) for data arrays as large as 12.6 Megabytes. Each VMA can be accessed by one program.

Multiple Extended Memory Areas (EMAs) sharable among multiple programs. Up to 15 different EMAs can be set up, within the limits of available memory. An EMA can accommodate up to 2 Megabytes of data. Each EMA can be shared by up to 63 different programs. This is particularly helpful in multi-task process monitoring and control systems in which one program acquires data, another uses the data to alter control outputs, and yet another accesses the data for analysis or graphical display.

## Family compatibility

RTE-A.1 is a member of Hewlett-Packard's compatible family of real-time executive operating systems. RTE-A.1 program requests and operator commands are functionally compatible with the RTE-6/VM, RTE-IVB, and RTE-XL systems. There are some differences in certain programming calls to the RTE-A.1 executive vs RTE-6/VM and RTE-IVB, which are documented in the RTE-A.1 General Information Manual, HP Part Number 92077-90006.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

HP 1000 A600/A700 Computers

Price:

"A" Product = \$2,500 (A600), \$5,000 (A700)

**HP Software Part Number:** 

92077A, 92077R, 90277E

**Options:** 

-600 A600 Computers

**—700 A700 Computers** 

Comments: "R" Product = \$1,000 (A600), \$2,000 (A700), "E" Product = \$500 (A600), \$1,000 (A700)



HP USE ONLY

I.D. Code:

Application Code: 53.32001

Expiration Date:

Product Name:	Mainframe(s):
UCSD p-System <sup>®</sup> /FORTRAN-77	HP-86/87

#### Software Description:

This product is a complete software development system supporting UCSD FORTRAN-77. The p-System offers the user an integrated operating system including the FORTRAN compiler, an assembler, editor, linker and file handler. This system will allow the user to develop highly portable application software as well as take advantage of the growing library of third party software developed for the p-System.

The interactive operating system supports program chaining input/output redirection, dynamic overlap, dynamic memory allocation, disk file handling capabilities and a linker to link edit assembly code into FORTRAN modules.

Software development support includes a powerful screen oriented editor, a character oriented editor, and for high resolution graphics, machine independent adaptable library subroutines (TURTLEGRAPHICS).

FORTRAN-77 is the most up-to-date FORTRAN for micros and supports structured programming, IF-THEN-ELSE constructs, program overlaps, interactive input/output, and standardized random access files to facilitate portability.

<sup>®</sup>UCSD p-System and UCSD Pascal are trademarks of the Regents of the University of California.

Retail Price: To be announced Hewlett-Packard product number 00087-13011

#### **SYSTEM REQUIREMENTS**

Mainframe: HP-86/87

ROMs:

Memory: 64K

Peripherals: no additional peripheral requirements

#### **ADDITIONAL INFORMATION**

The p-System family of products are offered in the following configurations:

Product #	Configuration	Description
00087-13017	7 UCSD p-System/ PASCAL	Complete p-System software development systems featuring UCSD Pascal. Also supports Fortran-77 which is offered as an add-on module (00087-13014).
00087-13011	1 UCSD p-System/ FORTRAN-77	Complete p-System software development system featuring FORTRAN-77. Also supports UCSD PASCAL which is offered as an add-on module (00087-13013).
00087-13013	3 UCSD PASCAL <sup>®</sup>	Add-on Pascal compiler. For the user who currently has 00087-13011.
00087-13014	4 UCSD FORTRAN-77	Add-on FORTRAN compiler For the user who currently has 00087-13012.

Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE PROGRAM MATERIAL IS MADE AVAILABLE SOLELY ON AN "AS IS" BASIS, AND THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH THE USER. SHOULD THE PROGRAM MATERIAL PROVE DEFECTIVE, THE USER (AND NOT HP) SHALL BEAR THE ENTIRE COST OF ALL NECESSARY CORRECTIONS AND ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. HP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THE PROGRAM MATERIAL.



#### HP USE ONLY

I.D. Code:

Application Code: 53.32002

Expiration Date:

Product Name:	Mainframe(s):
UCSD p-System <sup>®</sup> /PASCAL	H <b>P-</b> 85/87

#### Software Description:

This product is a complete software development system supporting UCSD PASCAL<sup>®</sup>. The p-System offers the user an integrated operating system including the PASCAL compiler, and assembler, editor, linker and file handler. This system will allow the user to develop highly portable application software as well as take advantage of the growing library of third party software developed for the p-System.

The interactive operating system supports program chaining, input/output redirection, dynamic overlap, dynamic memory allocation, disk file handling capabilities and support for asynchronous processes and concurrency primitives in PASCAL.

Software development support includes a powerful screen oriented editor, a character oriented editor, and for high resolution graphics, machine independent adaptable library subroutines (TURTEGRAPHICS).

UCSD PASCAL is the industry standard Pascal for micro computers. It is a fully developed and supported Pascal with extension for system development and commercial applications programming. It is the preferred language for the user who demands support for complex data structures and a structured programming orientation.

"UCSD p~System and UCSD Pascal are trademarks of the Regents of the University of California.

Retail Price: To be announced Hewlett-Packard product number 00087-13012

#### **SYSTEM REQUIREMENTS**

Mainframe:

HP-86/87

ROMs:

Memory:

64K

Peripherals:

no additional peripheral requirements

#### **ADDITIONAL INFORMATION**

The p-System family of products are offered in the following configurations:

Product #	Configuration	Description
00087-13017	UCSD p-System <sup>®</sup> / PASCAL	Complete p-System software development systems featuring UCSD Pascal. Also supports Fortran-77 which is offered as an add-on module (00087-13014).
00087-13011	UCSD p-System/ FORTRAN-77	Complete p-System software development system featuring FORTRAN-77. Also supports UCSD PASCAL which is offered as an add-on module (00087-13013).
00087-13013	UCSD PASCAL	Add-on Pascal compiler. For the user who currently has 00087-13011.
00087-13014	UCSD FORTRAN-77	Add-on FORTRAN compiler For the user who currently has 00087-13012.

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# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code: 53.42001

Mainfra	me(s)	
<b>HP</b> 9000	Models	20,30&40

Program Title

**HP-UX 9000 Operating System** 

#### **Program Description**

HP-UX 9000 is Hewlett-Packard's version of AT&T's UNIX\* System III Operating System which has been adapted to provide a programming environment for scientific and engineering problems. HP-UX 9000 is a multi-tasking, time-shared system which can be configured as either a single- or multiple-user system. HP-UX offers a high level of compatibility with existing UNIX software and provides a set of powerful tools to assist in the development of new software. In addition, HP-UX supports such tools as: virtual memory, 2D and 3D graphics, HP's IMAGE Data Management System and Asynchronous Data Communications.

#### **Features**

- An extensive I/O redirection capability which allows programs and command scripts to access files, file directories, physical devices, and other programs with the same I/O commands.
- The HP-UX shell is a powerful command language which allows users to execute tasks, establish interprocess communication channels and select standard I/O devices quickly and easily. In addition, the shell includes programming commands which enable programmers to construct programs from existing program modules without compiling new code.
- Standard I/O that allows the input and output of a program to be specified at run-time via the HP-UX
- A local virtual memory address space of 500 Mbytes per program which can be used for either code or data. An additional 500 Mbytes of code can be system shared.
- Concurrent execution of up to 59 processes.
  A hierarchical or "tree-like" file system to organize code and data.
- Each user has a password to gain access to the file system. Access to a particular file may be restricted to the file's owner, a specified group of users, or the entire user community.
- Supports the creation of command files to execute multiple tasks at a specified time-of-day.
- Includes University of California at Berkeley's VI Full Screen Editor.
- Optional support of HP FORTRAN 77, HP Pascal and "C" language compilers.

HP-UX provides optional support of the following software tools:

- GRAPHICS/9000 (DGL)
- GRAPHICS/9000 (AGP)
- IMAGE/9000 Data Base Management
- Asynchronous Terminal Emulator

<sup>\*</sup> UNIX is a registered trademark of Bell Laboratories, Inc.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Models 20, 30 and 40

Price: \$2020. (97070A and/97079A, single-user), \$7565. (97080A and 97089A, multi-user),

\$1210. (97070M/R and 97079M/R, single user),

\$4540. (97080M/R and 97089M/R, multi-user),

HP Software Part Number: HP 97070A/R/M (Model 20, single-user), HP 97080A/R/M (Model 20, multi-user),

HP 97079A/R/M (Models 30 & 40, single user) HP 97089A/R/M (Models 30 & 40, multi-user)

**Memory Requirements:** 

**Peripherals:** Mass storage: 7908/11/12P, 9895A, 82901/2A, 7971A

Printer/Plotters: 2631B/G, 9872C/T, 7470A, 7580A, 7585A

Terminals: 2622A, 2623A, 2647F, 2703A

Comments:



54.12001

Mainframe(s) HP 1000 L-Series **Program Title** 

L-Series Diagnostic Packages

#### **Program Description**

The HP 24397A and 24600A Diagnostic Packages provide stand alone testing of the L-Series CPU, memory, and its set of interface cards. Diagnostic software can be loaded into memory from flexible disc or a 264x Terminal with Mini cartridge tape unit.

#### **Features**

- Verification by the kernel diagnostic of all CPU instructions, memory, I/O logic and processor functions such as interrupt handling, timebase generator, memory protect, parity checking and direct memory access (DMA)
- An interface diagnostic written in Diagnostic Design Language for each of the following L-Series interface cards:

12005A — Asynchronous Serial Interface

12006A - Parallel Interface

12007A - HDLC Modem Interface

12008A — PROM Card

12009A — HP-IB Interface

12044A -- HDLC Direct Connect Interface

- · Test hoods for complete verification of interface cards
- "BASIC-like" Diagnostic Design Language interpreter for easier user diagnostic design for user-designed interfaces and specialist level diagnosis
- All diagnostic software on a single medium of user's choice
- Remote diagnosis capability via phone lines using Bell 103 modem and the virtual control panel (VCP)

## Configuration requirements

L-Series processor: 2103L/LK Computer or HP 1000

L-Scries System.

Memory: 32k bytes, minimum.

**Loading devices:** Cartridge tape unit on a 264x Terminal, or a double density double sided flexible disc drive.

Console device (needed only for running the Diagnostic Design Language and optional for running any of the interface diagnostics): Any HP 1000 L-Series compatible 26xxA terminal connected to the computer via a 12005A Asynchronous

Serial Interface.

	ORDERING/HARDWARE INFORMATION
	URDERING/HARDWARE INFORMATION
Mainframe(s):	HP 1000 Models 5 (2142A), 9 (2145A), 10 (2146A)
Price:	\$210.00
HP Software Part Number:  Memory Ontions:	24397A (L-Series Diagnostics), 24600A (L-Series Data Comm Diagnostics) See memory requirements in description above.
monty options.	See memory requirements in description above.
Peripherals:	Loading device, 264X terminal with cartridge tape or flexible disc drive.

Contact your local HP Sales Office for additional information

Comments:



54.12002

Mainframe(s) HP 1000 E & F-Series Program Title

On-line Diagnostic and Verification Package for HP 1000 Computer Systems

#### **Program Description**

The On-line diagnostic and verification package is a group of diagnostic and verification programs that run in the RTE-IVB, RTE-IVE, or RTE-M operating environment. They offer the user the important advantage of being able to be used while other programs are executing on the system (except those that may be affected by a malfunction). These on-line programs can be used to:

- 1. Diagnose faults of:
  - Hardware Floating Point Processor (in F-Series Computer).
  - Scientific Instruction Set firmware (in F-Series Computer).
  - Extended Memory Area firmware (in E/F-Series Computer).
  - d. Vector Instruction Set firmware (in F-Series Computer).
  - e. Integrated Controller Disc (ICD) memories.
- 2. Verify functional operation of:
  - a. The HP 21xx computer cpu, memory, and firmware.
  - b. HP 79xxH Integrated Controller Disc (ICD) memories, HP 79xxM/S Multi-Access (MAC) controller disc memories, and HP 92068A RTE file manager.
  - c. 91740x DS/1000 Distributed systems communication.
  - d. HP 59310B HP-IB interface.
  - e. HP 26xx Operator terminal operation under DVR05, DVA05, multipoint, and DVR00.
  - f. HP 7970B/E Mag tape unit operation.
  - g. Line printer operation.
  - h. HP 3070 Data Capture Terminal operation under DVA47.
  - HP 3075A/76A/77A Data Capture/Time Reporting Terminal operation under multipoint.

#### **Features**

- On-line verification and diagnosis while executing other system activity.
- 5 different on-line diagnostic programs
- 21 different on-line verification programs

# Functional specifications and usability

The 91711A diagnostic and verification programs, their memory requirements, and their usability by operating system and HP 1000 Computer series are summarized in Table 1.

Table 1. 91711A On-line diagnostic and verification usability summary

	Memory Required		Op Sys Usability		Computer Usability		
91711A Routines	Pages 8	k (bytes)	RTE-M	RTE-IVB/E	F-Series	E-Series	M-Series
ON-LINE DIAGNOSTIC PROGRAMS							
Hardware Floating Point Processor diagnostic	5	(10k)	Yes	Yes	Yes	No.	No
Scientific Instruction Set diagnostic	5 5	(10k)	Yes	Yes	Yes	No	No
Extended Memory Area firmware diagnostic	7	(14k)	No	Yes	Yes	Yes	No
Vector Instruction Set diagnostic	12	(24k)	No	Yes	Yes	No	No
ON-LINE VERIFICATION PROGRAMS							
Main central processing unit verification	6	(12k)	Yes	Yes	Yes	Yes	Yes
Memory verification	3	(6k)	No	Yes*	Yes	Yes	Yes
Supported F/E-Series firmware verification	9	(18k)	Yes	Yes	Yes	Yes	No
Disc plus RTE file manager verification	10	(20k)	No	Yes	Yes	Yes	Yes
Distributed systems verification (91740x only)	6	(12k)	Yes	Yes	Yes	Yes	Yes
HP-IB interface verification	6	(12k)	Yes	Yes	Yes	Yes	Yes
Mag tape verification	9	(18k)	Yes	Yes	Yes	Yes	Yes
Line printer verification	8	(16k)	Yes	Yes	Yes	Yes	Yes
2645A/47A/48A Terminal plus DVR05/DVA05 verification	9	(18k)	Yes	Yes	Yes	Yes	Yes
2645A/48A Multipoint Terminal verification	7	(14k)	Yes	Yes	Yes	Yes	Yes
RS-232C Terminal plus DVR00 verification	7	(14k)	Yes	Yes	Yes	Yes	Yes
HP 3070A/B plus DVA47 verification	6	(12k)	No	Yes	Yes	Yes	Yes
HP 3075A/76A/77A plus multipoint verification	17	(34k)	No	Yes*	Yes	Yes	Yes
ICD memory/MAC disc verification	14	(28k)	No	Yes*	Yes	Yes	Yes

<sup>\*</sup> Not usable in RTE-IVE.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40 (2176C/D), 45 (2177C/D)

Price: \$525.00

HP Software Part Number: 91711A

**Memory Options:** 

Peripherals:

Comments:



# 6 Languages

- 61 BASIC
- 62 Fortran
- 63 Pascal
- 64 Assembly
- 69 Other

r		



61.12001

Mainframe(s)
HP 1000
E, F & L-Series

Program Title

BASIC/1000L and BASIC/1000D Subsystems

#### **Program Description**

Hewlett-Packard's BASIC/1000L and BASIC/1000D are subsystems for conversational development, testing, and execution of Real-Time BASIC programs in computer systems managed by disc-based RTE-L/XL/II/IV/IVB real-time executive operating systems.

#### **Features**

- Concurrent multi-user development and execution of Real-Time BASIC programs in RTE-XL/IV/IVB
- Conversational programming
- Time and event scheduled operation for single user
- High-level subroutine calls for instrumentation, including multi-instrument clusters bus-connected via HP-IB\*
- Easy access to disc file storage for programs and data or to IMAGE/1000 data base in RTE-IV/IVB/XL only
- Character string manipulation with string variables
- Support of bit manipulation
- Usability of subroutines or functions in FORTRAN or Assembly language
- Print with format control
- Ability to run BASIC or non-BASIC program as a subprogram

## Functional description

Basic/1000L is a program-compatible subset of the discbased BASIC/1000D. These BASIC language subsystems support the following capabilities.

Single-user and multi-user operation. The RTE host systems all support single-user operation. In systems with enough memory, multi-user operation can be provided by individually-identified copies of BASIC/1000L or D, each serving a different user. All active copies run concurrently with each other and with other programs in the RTE system, but only one copy can use time and event scheduling.

On-line program development. BASIC/1000L and D operate in either conversational (program development) or run (program execution) mode. In RTE, several copies of BASIC/1000L or D can be used for program development while another is running a program, so BASIC-programmed operations can be extended on-line.

Conversational program development. Real-Time BASIC programs are entered into the system via the system console or another terminal. BASIC checks each statement entered. If a statement contains an error, BASIC returns a message to help the user re-enter that statement correctly, in a conversational process. Program execution errors are flagged and corrected with similar ease.

Character string manipulation. Strings up to 255 characters long can be represented by variables. This provides a shorthand representation of frequently-used strings that can save programming time and effort. It also makes possible the extraction of string segments using subscripts and character-by-character comparison of two strings.

Real-time multi-tasking. The host RTE system provides a multi-program, multi-partition environment in which BASIC/1000L or D operates. This environment provides for multi-user operation via multiple copies of the BASIC. User's program code in each of these copies or in single-user BASIC/1000L or D is not just a single task, but can be subdivided into as many as 16 tasks that are BASIC subroutines. This subdivision helps the user to match the frequency, timing, and basis for execution of programmed task actions to the diverse needs of real-time applications. For one of the copies of BASIC in the system, task executions may be scheduled as a function of time or event interrupt (such as contact closure). (This requires the provision of time scheduling, which is optional in RTE-L). BASIC/1000L and D recognize priority levels from 1 through 99.

Print with formatting. A useful BASIC/1000L and D capability is the PRINT USING statement for specifying the format in which the variables specified in the statement are to be printed. This format can be in a literal string, a string variable, or in a special statement called the IMAGE statement. With PRINT USING:

- Numbers can be printed in integer, fixed point, and floating point representations.
- The exact position of plus and minus sign can be specified.
- String values can be printed in specified fields and literal strings and blanks can be inserted wherever needed.
- Full control of carriage returns and line feeds is possible.
- Arbitrary long lines can be printed without the carriage returns and line feeds normally provided by the PRINT statement.

**Program testing.** User requests are provided for tracing program execution, inserting up to four breakpoints, and for simulating execution of subroutine calls. These capabilities are helpful for testing programs on a system different from the target system in which they will be used.

Program statement renumbering. In BASIC/1000L and D, the user can systematically change program statement numbering with a simple command, without retyping statements, a capability that greatly facilitates insertion of additional program statements where needed.

Disc storage of programs and data. BASIC programs are easily saved in named disc files, in either source or semicompiled (faster-executing) form. The user can also create files on the disc for data storage and retrieval access with simple PRINT and READ program statements. Files are easily renamed or purged to meet changing needs.

Program linking. BASIC/1000L and D include CHAIN and INVOKE statements for automatically linking programs together so they run as one long program. The CHAIN statement in the current program retrieves a named program from the disc and starts it running from the first statement or any later statement number that is specified in the CHAIN statement. The INVOKE statement is more capable than the CHAIN statement. It can call BASIC or non-BASIC programs. INVOKEd programs can access previously-opened BASIC data files and use previously-enabled TRAPs. An INVOKEd program may INVOKE another program. When the current executing INVOKEd program terminates, control is returned to the program that called it.

**Program editing.** Using the interactive editor of BASIC, the user can edit characters within a statement line, leaving some characters unchanged, inserting characters, and replacing or deleting characters as desired.

Data base access. BASIC/1000L&D include an interface to the IMAGE/1000 Data Base Management System. This interface connects BASIC program calls to subroutines of IMAGE/1000, including the routines that open or close the data base, locate, read, update, add, or delete data, and lock or unlock the data base. It is not usable in RTE-II or RTE-L.

#### Environment

BASIC/1000L: Disc based RTE-L/XL system with 64/128k bytes of memory.

BASIC/1000D: Disc based RTE-II system with at least 48k bytes of memory, or RTE-IV/IVB system with at least 128k bytes of memory.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 5 (2142A), 9 (2415A), 10 (2146A), 40 (2176C/D), 45 (2177C/D)

Price: \$525.00 (BASIC/1000L), \$1,050.00 (BASIC/ 1000D)

HP Software Part Number: 92076A (BASIC/1000L), 92101A (BASIC/1000D)

Memory Options: See memory requirements under "Environment" discussion above.

Peripherals:

Comments:

# SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 61.21001

**Expiration Date:** 

PRODUCT NAME

MAINFRAME(S)

GSCA-3111 BASIC to Fortran Translation Kit

9826, 9835, 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, rnajor features & benefits, etc.)

The Basic to Fortran Translation kit translates Hewlett-Packard extended Basic to ANSI 66 Fortran 4. The kit is on a data cartridge containing the translator and utilities to edit to Fortran. The kit is supplied with the capability of translating a total of 10000 Basic lines (comment statements are excluded).

This kit is particularly useful to HP users who are upgrading to HP 1000 or HP 3000 series and require faster processing.

The Basic source code is stored on sequential data files. The Fortran code is also stored on sequential data files. If the appropriate configuration is available, the user can download the Fortran code to the host.

The translator displays and prints on hard-copy printer (if available) the Basic and equivalent Fortran translation with appropriate warning and error mes/sages when required. A cross-reference file, containing variable names, labels and subroutine and function names, is also supplied.

**RETAIL PRICE:** \$2250 U.S. (\$2500 U.S. after Dec. 1, 1981)

200-11831 123rd Street

COMPANY NAME: George Saly Computer Assoc. Ltd.

CONTACTS: George Saly

ADDRESS:

Edmonton, Alberta, Canada T5L 0G7

TELEPHONE:

403-451-4531

SYSTEM REQUIREMENTS			
Computer Model: 9826, 9835, 9845	Peripherals:		
Memory: Minimum 50K bytes ava	ilable to user		
Operating System:			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
Morldwide ☐ Canada ☐ U.S. (all regions) ☐ Mexico ☐ East ☐ Latin America (a ☐ South ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Support Services Available			
A phone-in support	mail-in support on-site systems engineers	☐ remote dial-in ☐ program modification	
Additional Support Information and Pricing	).		
CUSTOMER TRAINING/DOCUMENTA	TION		
Training Available: Not necessary/a	vailable	Price:	
Documentation Available: User Guide	included	Price:	
Documentation Available in other languages: English Only			
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTA	LLATION:	
ADDITIONAL INFORMATION 1. Data sheet and specification supplied on request 2. User's guide available separately for \$100. US 3. Delivery after 4 weeks after receipt of order 4. When ordering specify type of desktop and memory NOTE: Also Available: - GSCA-3101 Fortran to Basic Translation Kit  - GSCA 3100 Translation Service Translation from one scientific computer language to another. e.g. Wang 600 to HP 9845 HP 9815 to HP 9835			
	HP 9835	to HP 1000 Basic	
RESPONSIBILITIES STATEMENT			
This software was developed by an indepen	dent software supplier for operation on HP con	nputer systems. The supplier is solely	

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## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:		
	61.22001	

Mainframe	e(s)
Series	200

Program Title

Series 200 BASIC 2.0 Language System

#### **Program Description**

The BASIC 2.0 Language System is anything but basic. It adds to the inherent simplicity of BASIC the computational power usually found in FORTRAN, ALGOL and APL. Beyond that, high-performance, I/O-intensive constructs are incorporated, giving this BASIC the highest performance found in interactive instrument control systems on the market today.

BASIC 2.0 puts mini-computer architecture and power on *YOUR* desk, bench or test-bay, not down the hall. With the BASIC Language System, high performance and easy programming are not mutually exclusive — both are provided for your benefit. This increase in your software productivity is applicable to a wide spectrum of task and project demands because this BASIC provides an impressively rich command set at your finger-tips. Sophisticated applications can be met with state-of-the-art hardware power as your resource. At the same time simple tasks can be solved in minutes, not hours.

#### BASIC 2.0 increases your software PRODUCTIVITY by providing:

- A computer system at your fingertips. You don't wait to "log-on" just sit down and start developing solutions.
- Interactive editing. The editor is always there at the push of a button. A rotary control knob lets you quickly scroll through your program.
- Statement syntaxing at program entry. You don't have to run your program to find syntax errors; BASIC 2.0 proofreads your code.
- Extensive debug and trace tools. You can single-step your program one line at a time to check program logic flow and variable assignments. Tracing tools allow a line-by-line log of line numbers and variable changes to be printed while your software is running.
- Structured programming constructs that organize your code. Complex algorithms are easier to develop, document and maintain.
- Independent subprograms. You can break your software down into smaller modules for easier development and coding. Subprograms can be stored and loaded separately so you can develop disc-resident subprogram utility libraries.
- Dynamic variable allocation. This increases the flexibility of your subprogram libraries so you can efficiently manage memory space as you go.
- Labeled COM, to increase the flexibility of your subprograms. You can have several independent "common" variable blocks, allowing easy subprogram variable usage and subprogram communication.
- A unified device and mass storage I/O system. You can easily redirect I/O to and from devices and
  files. In essence, your I/O routines can access a mass-storage file in the same way as an external
  device providing an excellent test harness for your I/O dependent code.

#### BASIC 2.0 increases your software PERFORMANCE by providing:

 16M bytes of address space and memory-mapped I/O with the Motorola MC68000. As applications grow, you won't outgrow your memory space or system performance. High-volume data acquisition can be done directly to memory.

Intrinsic I/O drivers. BASIC 2.0 is optimized for I/O so you don't have to write or "link in" separate

I/O drivers - they're already there.

· Optimized transactional I/O. I/O path set-up times are reduced to the bare minimum. Short data transfers are just that - short. I/O paths can be turned around quickly, allowing you to go from input to output extremely fast. BASIC 2.0 gives your I/O-dependent software unparalleled "agility"

• The richest HP-IB I/O command set in the industry. Instrument control over HP-IB is quick and to-the-point. More than 20 commands are dedicated to HP-IB I/O to give you performance and

flexibility in letting the bus work for you.

 15 levels of prioritized interrupt. You can optimize I/O operations to closely match peripheral device speeds without tying down the system. With 15 levels of interrupts, a multitude of external events can be serviced in a concurrent environment with varying levels of priority set by you. Even the keyboard rotary control knob can be used as a system interrupt source.

These are just a few reasons why the BASIC 2.0 Language System can increase your software performance and productivity. BASIC 2.0 gives you high performance AND easy software development, taking you from problem definition to solution quickly and efficiently. You generate results, not just software.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

Series 200 Computers

Price:

See Price Sheet

HP Software Part Number:

Add-on BASIC language system: 98601A (ROM), 98611A (RAM)

**Memory Options:** 

Language/ROMs:

Minimum user read/write memory available:

42K bytes (approx.)

Peripherals:

Comments:

BASIC 2.0 Language System included with 9816S, 9826S, 9836S

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:		
61.42001		

Mainframe(s) HP 9000 Model 20 Program Title

**BASIC Language System** 

#### **Program Description**

The HP 9000 BASIC Language System features new software technology that can provide a unique programming environment for the engineer who needs the performance of a compiler but prefers the friendly interaction of an interpretive language. The key to providing an operating system with such interaction and high performance is a run-time compiler that adds the functionality of an interpreter to the high-speed performance of a compiler.

HP BASIC is conversational, easy-to-use and it incorporates standard ANSI BASIC statements. But it also extends far beyond ANSI BASIC to give you the powerful features normally associated with such languages as FORTRAN, PL/1, Pascal and APL.

#### HP 9000 BASIC Language System Key Features

- Single-user, Multi-programming
- Event-driven Job Scheduling
- Interactive Editor
- Engineering Extensions

The HP 9000 BASIC Language System provides complex features in an easy-to-use form. It offers multi-tasking, high-performance graphics and extended I/O which are common to minicomputer operating systems. HP 9000 BASIC has made these features accessible with clear, logical commands which are as easy to use as the rest of the BASIC language. But with the HP 9000, you can access these commands from a program or directly from the keyboard without writing a program. The result is the ability to isolate and accelerate testing of complex machine functions which are traditionally difficult to access and require extra technical proficiency to use.

The BASIC Language System is characterized by its friendly program development tools. The system features a full screen editor operated by special function keys on the keyboard. It also offers a collection of commands that allow the programmer to:

- trace the flow of program control or values of variables,
- pause programs and modify variables or instructions from the keyboard or
- step through programs line-by-line.

#### Multi-programming

HP 9000 BASIC is a memory-based, multi-programming system. The number of programs it can support concurrently depends on the amount of physical meemory available (typically, 20 programs on a 2 Mbyte system). Each program runs in its own "partition" which is a virtual machine. With simple keyboard commands, you can attach the system keyboard and CRT to any partition.

#### Compilation and Memory Management

On many other computer systems, the user must choose between interpreted or compiled systems. Through the innovation of Hewlett-Packard's new BASIC Run-Time Compiler, the HP 9000 can maintain the highly interactive program development environment of an interpreter and still deliver the performance of a compiled language.

#### Screens

Included in the HP 9000 BASIC Graphics system is the ability to "section" the CRT into rectangular "screens." Each screen can be attached to various system functions such as PRINT, INPUT, error messages, etc. Overlapping screens are also allowed.

Screens may be either "public" or "private." Private screens are only visible when the CRT is attached to the defining partition. Public displays are always displayed.

#### File Systems

HP 9000 BASIC offers a flexible mass storage system. It supports three different directory formats: a hierarchical file format called Structured Directory Format (SDF), Logical Interchange Format (LIF) and 9845 Desktop Computer Format.

#### Language Characteristics

Variable Types

16 bit integer representation INTEGER 32 bit integer representation DOUBLE REAL 64 bit IEEE floating point format SHORT 32 bit IEEE floating point format

CHAR ASCII character strings. (32-bit length field)

Arrays

Utilize any variable type

512 Kbytes maximum array allocation (except blank common and buffer variables)

Up to 6 dimensions

Structured Programming Features

LOOP: EXIT IF: END LOOP: FOR NEXT:

IF: THEN: ELSE: END IF REPEAT:

UNTIL; SELECT; CASE; CASE ELSE; END SELECT; WHILE; END WHILE FORCE DECLARE ON/OFF – disable/enable implicit variable declarations

Local Language Support

Roman Extension and Katakana character sets

Extended characters in character strings, line identifiers, file names and variable names.

Local keyboards and lexical string sorting algorithms for French, German, Katakana, Spanish, and Swedish

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Model 20 (only)

\$4035. ("A" product), \$2020. ("M & R" product)

**HP Software Part Number:** HP 97050A/R/M (single-user only)

Memory Requirements:

Peripherals:

Mass storage: 7908/11/12P, 7933H, 82901/2M, 9895A, 7971A

Printers/Plotters: 2631B/G, 7470A, 7580A, 7585A, 9872C/T

Misc: 9111A, 97098A

Comments:



Application Code:

62.12001

Mainframe(s) HP 1000 E, F & L-Series Program Title

FORTRAN 4X Compiler

#### **Program Description**

The FORTRAN 4X compiler is an extensively-enhanced version of the RTE FORTRAN IV compiler and runs in the RTE-IVB, RTE-L, and RTE-XL operating systems. FORTRAN 4X provides 32-bit integer, file I/O, and IF-THEN-ELSE capabilities, improved code generation, and other improvements which offer increased computational power and easier programming to the FORTRAN user.

#### **Features**

- Fast compilation
- Local optimization
- Direct access I/O (both IBM and FORTRAN 77 Style)
- Many features of the ANSI 77 Standard, such as IF-THEN-ELSE
- 16- and 32-bit integer; 16- and 32-bit logical; single, extended, and double precision real; and single and double complex data types
- Full I/O capability to/from remote nodes of a distributed system
- Compatibility with HP 1000 software subsystems, such as IMAGE/1000, GRAPHICS/1000, DATACAP/1000, and DS/1000

## Extensions to standard ANSI FORTRAN 66

HP FORTRAN 4X is a superset of ANSI FORTRAN X3.9-1966, with the following enhancements:

#### **Declarations**

Byte length type declarations: All type declarations can be followed by \*n where n is an integer constant; the following declarations are possible:

INTEGER*2	nteger
INTEGER*4 double i	nteger
LOGICAL*2	logical
LOGICAL*4 double	logical
REAL*4	real
REAL*6 or DOUBLE PRECISION*6 extended pre	ecision
REAL*8 or DOUBLE PRECISION*8 double pre	ecision
COMPLEX*8	mnlev
COMPLEX*16 double co	mnlev

**Double integer constants and variables** are allowed wherever a single integer is legal.

IMPLICIT and IMPLICIT NONE declarations: The IMPLICIT declaration redefines the implied data type of symbolic names. The IMPLICIT NONE declaration requires that all variables be declared (typed).

Array dimensions: Arrays can have up to seven dimensions.

Array declarators: Lower and upper bounds of array dimensions can be specified in array declarators. The value of the lower bound dimension declarator can be negative, zero, or positive.

Alphanumeric literals in DATA statement: Strings of characters bounded by apostrophes can be used in place of Hollerith constants in DATA statements.

Long Hollerith in DATA statements: A single Hollerith constant may initialize more than one element of an array.

#### Executable statements

General expressions are permitted for the initial value, increment, and limit parameters in the DO statement; as control parameter in the computed GOTO statement; in I/O lists of WRITE and PRINT statements; as array subscripts; as logical unit numbers.

IF-THEN-ELSE construct: The IF(...) THEN, ELSE, ELSEIF(...) THEN, and ENDIF statements are included in HP FORTRAN 4X.

Alternate returns mechanism: Allows program flow to return to a statement other than the one following the subroutine call statement.

DO increment parameter: Value of the DO statement increment parameter can be either positive or negative. (DO indices must be single or double word integers).

**Logical operations on integer data:** The logical operators .AND., .OR., .NOT., .XOR., .EQV., and .NEQV. may be applied to 16-bit or 32-bit integer data to perform bit masking and manipulation.

Additional instrinsic functions include bit shifting, ISHFT, number of actual parameters, PCOUNT, and a number of transcendental functions such as arcsine.

Generic function selection: A single name may be used for all versions of an intrinsic (e.g. SIN vs DSIN) for most FORTRAN library functions.

Direct access READ and WRITE statements are compatible with ANSI FORTRAN 77 and IBM style and may be formatted or unformatted.

**ENCODE and DECODE statements** provide memory to memory formatting.

List directed READ and WRITE are allowed.

ANSI FORTRAN 77 style I/O statements including OPEN and INQUIRE.

Error and End of File Control are provided by the END = ERR =, and IOSTAT keywords.

**HP-IB device control** is provided by passing secondary addressing or control buffers within READ and WRITE statements.

#### Program form

**Lower case:** Lower case keywords and names are accepted and mapped into upper case, thereby improving readability.

Compiler command: A compiler command line specification allows all integer and logical declarations without explicit length specifications to be considered as INTEGER\*2 and LOGICAL\*2, or INTEGER\*4 or LOGICAL\*4 respectively.

Debugging statements: Statements included in a program to aid debugging can be designated by the letter "D" in column 1 and compiled only when the associated command string option switch is set. Otherwise they are treated as comments.

Comment lines: An asterisk is accepted as the start of a comment line. Also, any FORTRAN statement can be followed in the same line by a comment that begins with an exclamation point.

Error directory provides brief explanation of each error detected.

Parameter (p1 = k1, p2 = k2, ... kn) defines names for constants, which may then be used in DIMENSION statements and anywhere else a constant may be used, including constant folding and conditional compilation.

Conditional compilation provides for different compilations of one source file to accommodate different requirements on different systems or for different applications.

#### Applicable standard

HP FORTRAN 4X is a superset of ANSI FORTRAN X3.9-1966.

#### **Environment**

Operating system: HP 1000 Computer System operating under RTE-IVB, RTE-L, or RTE-XL, plus a list device.

#### Memory requirements:

Program size Memory required
Up to 2000 lines 38 kilobytes
Up to 5000 lines 56 kilobytes

#### Compilation Speed (cpu time only)

In M/E/F-Series operating under RTE-IVB: 2000-3000 lines/minute.

In L-Series operating under RTE-L, or RTE-XL: 500-1000 lines/minute.

#### Local optimizations by compiler

Constant expression folding: Folding of operations that involve only constant values is done for all arithmetic and relational operators which do not also involve exponentiation or complex data.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 5 (2142A), 9 (2145A), 10 (2146A), 40 (2176C/D), 45 (2177C/D)

Price: \$1,050

HP Software Part Number: 92834A

Memory Options: See memory requirements under "Environment" discussion above.

Peripherals:

Comments:



Application Code:

62.12002

Mainframe(s) HP 1000 (RTE-6/VM and RTE-A.1)

Program Title

**HP 1000 FORTRAN 77** 

#### **Program Description**

Hewlett-Packard's HP 1000 FORTRAN 77 is a full implementation of the latest ANSI Standard for FORTRAN. This powerful language processor includes many extensions for compatibility with mainframe implementations of FORTRAN to simplify program migration to the HP 1000.

FORTRAN 77 operates under HP 1000's most advanced real-time executive operating system, RTE-6/VM, taking full advantage of the extended features available such as large data and program capabilities. In addition, FORTRAN 77 programmers can directly call external routines written in Pascal or HP's new Macro Assembler to maximize flexibility and performance yet minimize program development efforts.

#### **Features**

- Full ANSI 77 FORTRAN (X3.9-1978)
- Compatibility with ANSI 66 and HP's FORTRAN 4X
- Fast compilation
- Supports variables and arrays using up to 128M bytes of virtual storage
- Full MIL-STD-1753 extensions
- · Extensions to enhance mainframe compatibility
- Long names with up to 16 significant characters
- Double complex data type
- System programming extensions
- Transparent access to remote files in a distributed systems network.

#### Structured control flow for simplified coding

**IF THEN ELSE construct:** IF(...) THEN, ELSE, ELSEIF(...) THEN, and ENDIF statements are included for enhanced readability.

**Faster**, **more flexible DO loops:** DO loops can be specified for zero trip; trip count is pre-computed; and the index can be integer, real or double.

**Alternate returns:** Allows program flow to return to a statement other than the one following the subroutine statement call (e.g. for error processing).

Alternate entries: Allows multiple entry points to a program increasing program modularity.

STOP and PAUSE: These statements display character strings as well as numbers.

#### Powerful data manipulation

CHARACTER data type: replacing Hollerith constants and data in ANSI 66, CHARACTER data offers easy string manipulation.

**Expressions valid in most contexts:** In most places where a variable or constant is legal, so is an expression.

Constant expressions in declarations: With PARAMETER statements, programs can be 'parameterized' so that array sizes and other constant values need not be hard coded.

Variable dimensions as run-time expressions: Array upper and lower bounds (for parameters) can be computed from other parameters and COMMON variables.

Additional intrinsic functions: included are functions for rounding, various transcendentals and string manipulation.

Generic intrinsic functions: single names may be used for all versions of an intrinsic (e.g. SIN in place of DSIN) for most FORTRAN library functions.

#### General-purpose I/O

**OPEN, CLOSE, INQUIRE statements:** for disc files and devices. INQUIRE can be used to investigate properties of a file.

**Direct access I/O:** allows any record in a direct-access file to be read or written quickly by record number.

**List-directed I/O:** Input data can be 'free-field' and appropriate formats are chosen for output data. In both cases, FORMAT statements are unnecessary.

**Internal files:** allows the power of FORMAT number conversions to be used with character variables or arrays like the ACSII 'buffer'.

Error handling (ERR=, END=, IOSTAT=): an error specifier enables more control over actions to be taken when an I/O error is detected.

**Additional format capabilities:** For example, control over printing of leading zeros.

**READ and PRINT to standard devices:** Logical unit number can be defaulted to (possibly different) standard input and output devices.

#### New declarations

**PARAMETER statement:** to give names to constants. Allows 'parameterization' of programs, including values that can control conditional compilation.

**IMPLICIT statement:** used to change the default implicit types within a program unit.

**SAVE statement:** causes the values of local variables in a subprogram to be saved from one call to the next, even if the subprogram is in a disc-resident segment.

**Implied DO loops in DATA statements:** Portions of arrays can be initialized and subscripts of arrays within the 'DO' can be expressions.

**INTRINSIC statement:** specifies that a intrinsic function is to be passed to a subprogram. Names declared EXTERNAL will not be intrinsics.

**PROGRAM statement:** optional statement to name the main program.

**Array declarators:** Upper and lower bounds of array dimensions can be specified in array declarators.

**Array dimensions:** Arrays can have up to seven dimensions.

#### Mainframe compatibility

Selection of ANSI 66 or 77 semantics: where FORTRAN 77 is incompatible with the previous standard or common industry practice, HP's compiler provides alternative interpretations on a user-selectable basis.

Long names: up to 16 significant characters.

Embedded underscore: allowed in symbolic names.

**ENCODE and DECODE statements:** provides memory-to-memory formatting.

**IBM-style direct access READ and WRITE:** may be formatted or unformatted.

Byte-length data types: e.g. INTEGER\*4

**Embedded comments:** an exclamation point can be placed after any statement signifying an end-of-line comment.

**Extended-range DO loops:** permits transfer of control out of a DO-loop and then back in.

Hollerith data manipulation: Hollerith data can be used in DATA statements, READ/WRITE, and as arithmetic operands.

**Double precision COMPLEX data types:** As approved by the IFIP WG 2.5 on Numerical Software.

Quoted Hollerith constants in DATA statements: Both character and non-character variables can be initialized with ASCII in DATA statements.

#### Compliance with MIL-STD 1753

**DO WHILE looping construct:** allows execution of a DO-loop while a logical expression holds true.

**END DO:** used as a terminal statement of a DO-loop The matching DO may omit the statement number.

**Nested INCLUDE:** allows inclusion of text (e.g. COMMON declarations) from another file. INCLUDE is offered as both a statement and directive, and permits nonrecursive nesting.

**Bit manipulation intrinsics:** Functions for logical and circular shifting, set/clear/test bit, bit field extraction, bit field move, and masking operations.

**IMPLICIT NONE statement:** removes implicit types so that all variables must be explicitly typed. all implicit types assume the normal default values.

Octal and hexadecimal constants in DATA statements.

#### System programming capabilities

Conditional compilation is achieved through the coordinated use of named constants, constant folding, and dead code removal.

Aliasing of subprogram names to allow special characters.

Specification of non-standard calling sequences.

Extension of .AND.,.OR.,.NOT.,.EQV.,.NEQV., .XOR. to integer data.

Bit shifting, extraction and testing intrinsics. EQUIVALENCEing of character and non-character data.

**Intrinsic function** to get actual number of parameters passed to a subprogram.

**HP-IB** (IEEE 488) device control via secondary addressing and control buffers.

#### Virtual data capabilities

**Local variables and common blocks** may be used in up to 128M bytes of virtual memory.

**Double integer subcripts** may be used to access arrays with dimensions greater than 32767 elements.

#### Program form

Lower case accepted (mapped to upper case)

Descriptive error messages

Optional compilation of lines beginning with "D"

Integers may be defaulted to single or double length

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

HP 1000 A600/A700 Systems, HP 1000 E & F Series Systems (with RTE-6/VM)

Price:

\$3,000 (A600), \$4,500 (A700, E & F Series)

HP Software Part Number:

92836A

Options:

-600 A600 Systems

-700 A700, E/F Series Systems

Comments:

### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY LD Code: Application Code, 62,21001 Expiration Date:

CONTACTS: George Salv

PRODUCT NAME

GSCA-3101 Fortran to BASIC Translation Kit.



MAINFRAME(S)

9826, 9835, 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The Fortran to Basic Translation Kit translates Fortran source code to Hewlett-Packard extended BASIC. The kit is on a data cartridge containing data entry, data editing utilities and the translator. The kit is supplied with the capability of translating a total of 10000 Fortran lines (excluding COMMENT statements).

Depending on memory, either 300 lines or 1300 lines of Fortran source code can be translated at any one session.

The Fortran source code is obtained from sequential data files that was previously manually entered with the supplied utilities or that was transmitted from the host Fortran computer to the desktop.

The translator displays and prints on a hard-copy printer (if available) the Fortran and equivalent Basic translation with appropriate warnings or error messages when required. The Basic code is stored as a sequential data file.

\$1500 U.S. (\$1750 U.S. after Dec. 1, 1981) RETAIL PRICE:

COMPANY NAME: George Saly Computer Assoc., Ltd.

200-11831 123rd Street

Edmonton, Alberta, Canada T5L 0G7

403-451-4531 TELEPHONE:

ADDRESS:

SYSTEM REQUIREMENTS			
Computer Model: 9826, 9835,	9845	Peripherals:	
Memory: Minimum 50K byte	s available to user		
Operating System:			
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported			
	ica (all)		□ Far East (all) □ □
	□ South A	frica [	□ Australia N.Z.
Support Services Available:	M mail in average	_	
□ phone-in support     □ on-site consulting	on-site systems engine		remote dial-in program modification
Additional Support Information and P	Pricing:		
CUSTOMER TRAINING/DOCUME	ENTATION		
Training Available. Not necessar	ry/available	F	rice
Documentation Available User Gu	uide included	. F	Price
Documentation Available in other languages. English only			
NUMBER OF INSTALLATIONS:	DATE	OF FIRST INSTALL	ATION:
ADDITIONAL INFORMATION 1. Data sheet and specification supplied on request 2. Delivery after 4 weeks after receipt of order 3. When ordering specify type of desktop and memory			
NOTE: Also available:	- GSCA-3111 Basic	to Fortran Tran	slation Kit
		n from one scien	tific computer Wang 600 to HP 9845 HP 9815 to HP 9835 HP 9835 to HP 1000 Basic

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### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 62.21002

Expiration Date:

PRODUCT NAME

FORTRAN to BASIC syntax translator

MAINFRAME(S)

9835, 9845 A,B,&C

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

This program allows you to greatly expand the applications software base available for your use on the 9845 by translating programs written in FORTRAN into almost ready-to-run 9845 BASIC. For a typical scientific FORTRAN program, fewer than 3% of the program lines will need editing after syntax translation in order for the program to run properly on the 9845. The editing which is necessary usually requires an understanding of the original FORTRAN program, and a good working knowledge of 9845 programming. This translator can save you a considerable amount of time, but probably would not be successful for you in translating a program which you couldn't do yourself by hand if you took the time.

FORTRAN statements accepted include almost all of ANSI FORTRAN IV plus some IBM, CDC, and DEC extentions. Named common blocks, equivalence statements, complex variables, and the "P" format, where present, are not handled, and always require program editing following translation.

Data "decks" following the source "deck" are also properly translated into a separate data file if the data is formatted such that it can be read "free form" without reference to the read format statement. "Object" decks are, of course, useless, and all subroutines must be available in source form.

FORTRAN program and data inputs to the translator are from an ASCII data file on a tape cartridge, with column usage maintained as though the program were on cards. Outputs are also to an ASCII data file on a tape cartridge.

Program length is limited only by the size of the system which will be running the translated program.

RETAIL PRICE:

\$795.00

COMPANY NAME: L. W. James and Associates

1525 East County Rd. 58

ADDRESS:

Fort Collins, CO 80524

TELEPHONE:

(303) 484-5296

CONTACTS: Dr. Lawrence W. James

9-5 Weekdays (MST)

SYSTEM REQUIREMENTS		
Computer Model: 9835, 9845 A, B, or C	Peripherals: 2 tape	drives
Memory: 56K bytes		
Operating System:		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
□ U.S. (all regions) □ Mexico □ East □ Latin America (all) □ South □ □ □ Midwest □		Far East (all)
Support Services Available:		
□ phone-in support ☑ mail-in support □ on-site consulting □ on-site system		remote dial-in program modification
Additional Support Information and Pricing:		
CUSTOMER TRAINING/DOCUMENTATION		
Training Available:	Pric	ee:
Documentation Available:	Prio	ee:
English language manual.  Documentation Available in other languages:		
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALLAT	ION: 1979
ADDITIONAL INFORMATION  Translation service at our facility may save you money if you have only 1 of additional information.	ry available at normal co or 2 programs which need	onsulting rates. This translating. Call for
RESPONSIBILITIES STATEMENT		
This software was developed by an independent software responsible for its software and support services. HP is not the	supplier for operation on HP computer	

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responsible for selection of the software it purchases.



PDS 45/FORTRAN
97023 JA
PDS 45/FORT/Pascal
97025 JA
PDS 35/FORTRAN
97026 JA
PDS 35/FORT/Pascal
97028 JA
Add PASCAL to PDS 35/45
97029 JA
Add FORTRAN to PDS 35/45

#### **HP USE ONLY**

I.D. Code:

Application Code: 62.21003

**Expiration Date:** 

Product Name:

# For the PDS 35 and PDS 45

Mainframe(s):

9835 and 9845

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### IEM FORTRAN 77

The FORTRAN language supported by the PDS is compatible with the ANSI Standard FORTRAN 77 Subset language defined in ANSI X3.9-1978. It is also 100% compatible with the UCSD implementation of the FORTRAN language. This implementation is available on a variety of computer systems that range from the Apple Computer to the PDP 11. It is also available for most microprocessors: 8080/8085, Z80, 6502, 6800, 6809, 9900, and LSI-11. The close relationship to the ANSI Standard FORTRAN 77 Subset Language is very important. We will list the exact differences between IEM's implementation and the ANSI Standard. These differences fall into three general categories:

- Supported Features from the Full Language.
- IEM Extensions to the Standard.
- Unsupported Features.

## Supported Features from the Full Language

A program which is written to comply with the FORTRAN 77 Subset Standard (referred to as the Subset from now on) will compile and execute properly, because the full language properly includes the Subset constructs. There are several features from the full FORTRAN 77 Language that have been included in the IEM implementation. A short description of the full language features included in the IEM implementation follows.

- SUBSCRIPT EXPRESSIONS Function calls or array element references are allowed in subscript expressions.
- DO VARIABLE EXPRESSIONS IEM FORTRAN
  allows full integer expressions in limit computations for
  DO statements. Similarly, arbitrary integer expressions
  are allowed in implied DO loops associated with READ
  and WRITE statements.
- UNIT I/O NUMBER EXPRESSIONS IEM FORTRAN allows an I/O unit to be specified by an integer expression.
- EXPRESSIONS IN I/O LIST Expressions in the I/O list
  of a WRITE statement are allowed provided that they do
  not begin with an initial left parenthesis.

- EXPRESSIONS IN COMPUTED GOTO IEM FORTRAN allows an expression for the value of a computed GOTO, consistent with the full language rather than the subset language.
- GENERALIZED I/O IEM FORTRAN allows both sequential and direct access files to be either formatted or unformatted. It also contains augmented OPEN and CLOSE statements which take additional parameters that allow more programmed control over the state of files.

### IEM Extensions to the Standard

The language implemented by IEM has several extensions to the full language standard. These are briefly described below.

- LIBRARY ACCESS AND CREATION IEM FORTRAN
  can access library procedures and functions created by
  FORTRAN, Pascal, or Assembly Language. This is a
  powerful feature that allows one language to take
  advantage of the features of another language. It also
  allows for greater modularity and for separate
  compilation. Pascal can also access subprograms written
  in FORTRAN and placed in PDS library files.
- OVERLAYS IEM FORTRAN allows the programmer to group one or more subprograms as overlays. An overlay is only loaded into memory when one of its subprograms is called. Memory used by overlays is relinquished for other uses when the overlay subprogram is exited. This process is done automatically during execution.
- COMPILER DIRECTIVES Compiler directives have been added to allow the programmer to communicate certain compile-time information to the compiler.

### **Unsupported Features**

There are two places where IEM FORTRAN 77 does not comply with the ANSI Standard. One is that procedures cannot be passed as parameters, and the other is that INTEGER and REAL data types do not occupy the same amount of storage. REAL variables occupy 8 bytes of storage and INTEGER variables use 2 bytes each. REAL variables implement 12 BCD digits, while INTEGER variables use 16-bit binary, providing exactly the same precisions as does HP BASIC.

Retail Price:

For price information or to place order-

Contact nearest HP Sales Office.

Software Support: International Electronic Machinery, Inc. (IEM)

P.O. Box 1818

Address:

Fort Collins, CO 80522

Telephone:

Phone (303) 226-6672

TWX 910 930 9445

SYSTEM REQUIREM	IENTS		
Computer Model:	HP 9835	HP 98	45B/C
Memory: with option	(at least) the 128K byte memory n.	with (at least) option.	the 192K byte memory
Operating System:	PDS 35	PDS 4	5
Other Software: Ass	embly Execution Rom	Assembly	Execution Rom
CUSTOMER SUPPO	RT	-	
Geographic Area Supp	ported:		
U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐	Europe (all)	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Support Services Avai			
	■ mail-in suppo ■ on-site syster		<ul><li>remote dial-in</li><li>program modification</li></ul>
Additional Support Inf	formation and Pricing:		
CUSTOMER TRAINI	NG/DOCUMENTATION		
Training Available:	Yes		Price:
Documentation Availa	ble: See Below		Price: Contact IEM
Documentation Availa	able in other languages: No		
NUMBER OF INSTA	LLATIONS: 10	DATE OF FIRST INSTAI	LLATION: December 1981
ADDITIONAL INFO	RMATION		
Support Service		Documentation	
bug fixes or system upd customer can also purch phone-in consulting, sys- customer should arrang For further information,	CO 80522 226-6672	he he has FORTRAN Users Manguage as implement with the FORTRAN "FORTRAN 77 For reference book with	describing the PDS Operating  fanual: describing the FORTRAN nented by IEM on the PDS. (Comes I language only.)  Humans", by Page and Didday: a n a good treatment of programming s with the FORTRAN language only.)

#### RESPONSIBILITIES STATEMENT

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HP USE ONLY

I.D. Code:

Application Code: 62.32001

Expiration Date:

Product Name:	Mainframe(s):
UCSD FORTRAN-77	HP-86/87

#### Software Description:

This product configuration is offered as an add-on Fortran-77 compiler module for the user who currently employs the UCSD p-System  $^{\$}$ / PASCAL software development system. UCSD Fortran-77 is not a stand alone product.

Fortran-77 is the most up-to-date Fortran for micro computers and supports:

- IF-THEN-ELSE constructs
- Built in character data type
- All Fortran numeric intrinsic functions
- Standardized random access files to facilitate portability
- Interactive input/output
- Support for program overlap

This ANSI-77 subset version includes most of the features of the full language and has passed the ANSI-77 subset tests. Programs written under earlier Fortran versions will require little if any change.

<sup>®</sup>UCSD p-System and UCSD Pascal are trademarks of the Regents of the University of California.

Retail Price: To be announced Hewlett-Packard product number 00087-13014

#### SYSTEM REQUIREMENTS

Mainframe:

HP-86/87

ROMs:

Memory:

64K

Peripherals:

no additional peripheral requirements

#### **ADDITIONAL INFORMATION**

The p-System family of products are offered in the following configurations:

Product #	Configuration	Description
00087-13017	UCSD p-System/ PASCAL	Complete p-System software development systems featuring UCSD Pascal. Also supports Fortran-77 which is offered as an add-on module (00087-13014).
00087-13011	UCSD p-System/ FORTRAN-77	Complete p-System software development system featuring FORTRAN-77. Also supports UCSD PASCAL which is offered as an add-on module (00087-13013).
00087-13013	UCSD PASCAL®	Add-on Pascal compiler. For the user who currently has 00087-13011.
00087-13014	UCSD FORTRAN-77	Add-on FORTRAN compiler For the user who currently has 00087-13012.

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## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:		
	62.42001	

Mainframe(s) **HP 9000 Models 20,30&40**  Program Title

**HP 9000 FORTRAN 77 Compiler** 

#### **Program Description**

Hewlett-Packard's HP 9000 FORTRAN 77 Compiler is a full implementation of the latest ANSI Standard for FORTRAN. This powerful language processor includes many extensions for compatibility with mainframe implementations of FORTRAN to simplify program migration to the HP 9000.

FORTRAN 77 operates only under the HP 9000 HP-UX Operating System. With this compiler, FORTRAN 77 programmers can directly call external routines written in Pascal or C to maximize flexibility and performance yet minimize program development efforts.

#### **Features**

- Full ANSI 77 FORTRAN (X3.9-1978).
- Supports generation of re-entrant code.
- Fast execution.
- Virtual address space for up to 500 Mbytes of data.
- Full MIL-STD-1753 extensions.
- Supports recursion.
- Extensions to enhance mainframe compatibility.
- Long names with up to 16 significant characters.
- Short logical, short integer and double complex data types.
- System programming extensions.
- Support of all HP-UX system calls, GRAPHICS/9000 and IMAGE Data Base.

Structured control flow for simplified coding.

IF THEN ELSE construct statements: IF (...) THEN, ELSE, ELSE IF (...) THEN and END IF are included to enhance readability.

Faster, more flexible DO loops: "zero trip" DO loops, count is pre-computed and the index can be integer, real or double.

Alternate returns allow program flow to return to a statement other than the one following the subroutine statement call (e.g. for error processing).

Alternate entries allow multiple entry points to a program thereby increasing program modularity. STOP and PAUSE statements display character strings as well as numbers.

#### Powerful Data Manipulation

Replacing Hollerith constants and data in ANSI 66, CHARACTER data offers easy string manipulation.

In most cases where a variable or constant is legal, so is an expression.

Constant expressions in declarations: With PARAMETER statements, programs can be "parameterized" so array sizes and other constant values need not be hard coded.

Variable dimensions as run-time expressions: Array upper and lower bounds (for parameters) can be computed from other parameters and COMMON variables.

Included are functions for rounding, various transcendentals and string manipulations.

Generic intrinsic functions: Single names may be used for all versions of an intrinsic (e.g. SIN in place of DSIN) for most FORTRAN library functions.

General Purpose I/O

OPEN, CLOSE, INQUIRE statements: For disc files and devices, INQUIRE can be used to investigate the properties of a file.

Direct access I/O allows any record in a direct-access file to be read or written quickly by record number. List-directed I/O: Input and output data can be "free-field" and appropriate formats are chosen for the data. In both cases, FORMAT statements are unnecessary.

Internal files allow the power of FORMAT number conversions to be used with character variables or arrays like the ASCII "buffer."

An error specifier (ERR = , END = , IOSTAT = ) enables more control over actions to be taken when an I/O error is detected.

READ and PRINT to standard devices: Logical unit number can be defaulted to (possibly different) standard input and output devices.

Additional format capabilities include control over printing of leading zeros.

#### **New Declarations**

The PARAMETER statement can give names to constants. This allows "parameterization" of programs including values that can control conditional compilation.

The IMPLICIT statement can be used to change the default implicit types within a program unit. The SAVE statement causes the values of locl variables in a subprogram to be saved from one call to the next.

Implied DO loops in DATA statements: Portions of arrays can be initialized and subscripts of arrays within the DO can be expressions.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s):

HP 9000 Models 20, 30 and 40

Price:

\$2020. ("A" product, single-user), \$6055. ("A" product, multi-user),

\$1010 ("R & M" product, single-user), \$3025. ("R & M" product, multi-user)

HP Software Part Number:

97071A/R/M (single-user), 97081A/R/M (multi-user)

Memory Requirements:

Peripherals:

Comments:



Application Code:

63.12001

Mainframe(s) HP 1000 E, F & L-Series

Program Title

Pascal/1000 Compiler

#### **Program Description**

The Pascal/1000 compiler implements the Pascal high-level, block-structured programming language that can be used for program development in HP 1000 Computer Systems operating under Hewlett-Packard's RTE-IVB or RTE-XL real-time executive operating system. Pascal/1000 fully implements the "standard" language defined by Niklaus Wirth as well as important extensions that take full advantage of the extra HP 1000 Computer System capabilities that are available to users in the RTE-IVB system environment. The Pascal/1000 compiler translates Pascal source code to RTE Assembly language source code, which is then automatically assembled to produce object code. Pascal/1000 object programs can be executed in HP 1000 Computer Systems operating under HP's RTE-L/XL real time executive system as well as the RTE-IVB system.

Pascal combines good control structures and powerful data structuring with simplicity of use. It is easy to learn, programs written in it are easy to read, and a great deal of compile-time and run-time checking can be done to ensure program correctness.

#### **Features**

- · Easily-understood programming
- · Powerful, compact syntax
- Modern block-structured language
- Logical organization that facilitates documentation, modification, and maintenance of programs
- · Early detection of errors at compile and run time
- Fast debugging
- · Improved program reliability
- Clearly defined data structures complemented by flexible user-declared data types
- FORTRAN and Assembly language subroutines
- Fast execution
- 16- and 32-bit integer, single and double precision real, Boolean, character, text file, and user-defined data types using arrays, records, sets, files, and pointers
- Compatibility with HP 1000 software subsystems, such as IMAGE/1000, GRAPHICS/1000, and DS/1000-IV

#### Extensions to standard Pascal

Pascal/1000 is a superset of "standard" Pascal as defined by Jensen and Wirth in PASCAL User Manual and Report (second edition), published by Springer and Verlag, 1976. To avoid unintentional inclusion of Pascal/1000 extensions in a program that must be transportable to a system that executes only "standard" Pascal, the Pascal/1000 compiler includes an option for error-flagging any feature in a Pascal/1000 program that is not part of "standard" Pascal. Pascal/1000 extensions include:

- 1. 32-bit integer and double-precision floating point data types.
- Predefined procedures for directed access I/O.
- Separate compilation with load-time linking of modules (In "standard" Pascal, the entire program must be compiled at the same time.) Segmentation can be accomplished in a straightforward manner.
- 4. The CASE statement can have subrange labels and an OTHERWISE clause.
- Constant-valued expressions are allowed in most places that a constant is allowed in "standard" Pascal.
- Structured constants allow arrays, records, and sets to be easily initialized.
- Declarations may be in any order, except that LABEL must be first if it is used at all. More than one of each declaration section is allowed (such as two or more sections of TYPE, CONST, and/or VAR declarations).
- Identifiers may be up to a source line in length with all characters significant, vs only the first eight characters in "standard" Pascal.
- A function may return any type of data including arrays, records, or sets, but excluding files or data types containing files.
- MARK and RELEASE procedures supplement the "standard" Pascal facilities for dynamic memory management.
- EXEC, FMP, Pascal, FORTRAN, or Assembly language routines external to the Pascal program may be called by it.
- The Heap can reside in logical address space, or in the Extended Memory Area (EMA) for Pascal programs running under RTE-IVB.

#### **Environment**

Program development in RTE-IVB system: The 93832A Pascal/1000 compiler runs in a mother partition using the Extended Memory Area (EMA) managed by the RTE-IVB operating system. The EMA partition size must be at least 41 pages (84k bytes) resulting in compilation speed of around 50 lines per minute. Additional pages increase compilation speed. Exact memory requirements depend upon the customer's needs. To achieve approximately 500 compiled lines per minute, a 170 page (340k byte) EMA partition is needed. A separate 17 page (34k byte) partition is required for running the Pascal Monitor.

Program development in RTE-XL system: The 92854A Pascal/1000 compiler requires a minimum of two partitions, requiring a total of 128k bytes of memory, which provides a compile speed of approximately 50 lines per minute. Faster compile speed, up to about 150 lines per minute, can be achieved by providing partitions using a total of 512k bytes of memory.

Pascal program execution: Generated code runs under RTE-IVB, RTE-IVE, RTE-L, or RTE-XL.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 5 (2142A), 9 (2145A), 10 (2146A), 40 (2176C/D), 45 (2177C/D)

Price: \$4,200 (RTE-IVB), \$4,200 (RTE-XL)

HP Software Part Number: 92832A (RTE-IVA), 92854A (RTE-XL)

Memory Options: See discussion above under "Environment" paragraphs for memory requirements

Peripherals:

Comments:



## DISTRIBUTED SOFTWARE SUPPLIER PRODUCT SUMMARY

97021 JA (PDS 45) 97024 JA (PDS 35)

HP USE ONLY

I.D. Code:

Application Code: 63.21001

**Expiration Date** 

### PDS 35 and PDS 45 PRODUCT NAME **Program Development Systems**

MAINFRAME(S)

9835 and 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

PDS 35 and PDS 45 are Program Development Systems (PDS) for the Hewlett-Packard 9835 and 9845 Desktop Computers. They provide the ability to develop programs in a multi-language environment, and they do so by supplying a totally independent environment from the BASIC environment of the HP Desktop systems. Pascal and Macro Assembly are the first languages available.

The PDS allows the user to develop and execute programs, written in Pascal or any other language implemented by the PDS, on the HP Desktop. Program development is supported by the following:

- · An interactive disc-based operating system with file handling capabilities, run-time support routines, and block I/O service routines.
- A fast, one-pass Pascal compiler.
- A powerful, screen-oriented editor that runs in both program-editing and general document-editing modes.
- A file handler to manipulate disc files and volumes.
- · A linker for link-editing separately compiled programs, and for linking language-independent libraries into user programs.

### Features and Benefits

- Faster execution than HP Desktop BASIC. PDS programs (non-REAL number crunchers) will run from 5 to 15 times faster than equivalent BASIC programs.
  - Using procedure calls, Pascal ran from 13 to 15 times faster than BASIC.
  - Loop simulation (using IF and GOTO) Pascal ran 7 times faster.
  - Integer division and multiplication ran 5 times faster with Pascal.
- Total transportability of Pascal object code from 9845 to 9835. Any programs developed on the 9835 will run in object code form without recompilation on the 9845. The same is true for the reverse situation.
- · Speed of floppy transfers. The PDS has its own floppy assembly drivers. These drivers are from 8 to 10 times faster than the standard drivers implemented in the Mass Storage ROM.
- Access to all HP 9835 and HP 9845 keys including Special Function Keys.

- Batch command processing using Special Function Keys (SFKs). Sixteen user-definable SFKs can be used as typing aids and for batch-processing of commands.
- Library features. The PDS allows the user to separately compile procedures, functions, and data structures. This capability allows the user to create "libraries" of standardized algorithms and data structures to be used by others. The libraries can contain a mixture of procedures and functions developed and compiled by a mixture of languages. Reference by one language to a procedure or function developed by another language is allowed.
  - Libraries also allow the user to modularize his own program development to isolate working sections while concentrating on undeveloped sections.
- · Powerful Text Processing for Documentation. The powerful, screen orientated editor provided with the PDS runs in both program-editing and text-editing modes.

#### IEM Extensions to Pascal

- · Library facilities to allow prepared procedures and functions.
- Identifiers may be any length (only the first 8 characters) are significant).
- Double precision floating point.
- · Strings and string manipulation functions.
- Full array and record assignments and comparisons for equality and non-equality.
- SEGMENT procedures (automatic overlays).
- · Functions may return any type including arrays, records, sets, and user-defined types (except files, or types containing files).
- Predefined procedures for random access I/O.
- Interactive, untyped, and random access files.
- Pascal has dynamic memory management facilities useful for list processing. Heap management is implemented by a stack-like architecture and with the procedures NEW, MARK and RELEASE.
- EXIT statement (abortive exit from a procedure).

PDS 35 - \$2700.00 PDS 45 - \$3000.00 RETAIL PRICE:

To order - contact nearest HP Sales Office. Price subject to change without notice.

**SOFTWARE** SUPPORT:

TELEPHONE:

International Electronic Machinery, Inc. (IEM)

ADDRESS:

P.O. Box 1818

Fort Collins, CO 80522 Phone (303) 226-6672

TWX 910 930 9445

#### SYSTEM REQUIREMENTS Computer Model: 9835 or 9845 Peripherals: Any mass storage system other than tape. Memory: 128K or 196K Operating System: Other Software: Assembly Execution Rom CUSTOMER SUPPORT Geographic Area Supported: □ Worldwide Canada Europe (all) ☐ Far East (all) ■ U.S (all regions) ☐ Mexico ☐ Latin America (all) ☐ East ☐ South □ Midwest □ West □ South Africa □ Australia/N.Z. Support Services Available. ■ phone-in support mail-in support remote dial-in on-site consulting on-site systems engineers program modification Additional Support Information and Pricing. CUSTOMER TRAINING/DOCUMENTATION Training Available. Yes Price: Contact IEM Price: Contact IEM Documentation Available See below

Documentation Available in other languages: No

NUMBER OF INSTALLATIONS: 30

DATE OF FIRST INSTALLATION: August 1980

#### ADDITIONAL INFORMATION

### Support Services

IEM provides a free 90-day warranty period, during which any bug fixes or system updates will be sent automatically to the customer. The customer can also purchase additional support services such as phone-in consulting, systems engineering and training. The customer should arrange for such services directly with IEM. For further information, contact the software supplier:

#### **Documentation**

- · PDS Users Manual: describing the PDS Operating
- · Pascal Users Manual: describing the Pascal language as implemented by IEM on the PDS.
- "Introduction to Pascal with UCSD", by Rodnay Zaks: a reference book with a good treatment of programming techniques.

#### **RESPONSIBILITIES STATEMENT**

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## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

63.22001

Mainframe(s) Series 200 Program Title

Series 200 Pascal Language System

#### **Program Description**

The Series 200 Pascal Language System provides a complete operating system environment for the Series 200 Computer. The Language System is a hierarchical, tree structured system providing a single user, single tasking operating system as well as six separate subsystems and five utility libraries. The operating system and subsystems are menu driven. Each of the functions of the subsystems is accessed by pressing a single key. The facilities provided by the Pascal Language System are:

Operating System:

Main Command Interpreter

Subsystems:

Editor Filer

Pascal Compiler MC68000 Assembler

Debugger

Utility Libraries:

Linker/Librarian I/O Procedures

**Graphics Procedures** 

LIF Procedures LIF Filer Mediainit

The Pascal Compiler compiles HP Standard Pascal, a superset of the proposed ISO/ANSI Pascal Standard. The compiler can also be directed to accept most of the UCSD Pascal extensions. Pascal source code is compiled directly to MC68000 object code which is the native code executed by the Series 200. The Pascal programming language is a structured, extensible programming language offering powerful programming and data structuring. Programs written in Pascal tend to be easy to read and maintain. In addition, there is a high level of source compatability between Series 200 Pascal and Pascal/1000 as offered under the HP1000 RTE operating system.

The I/O procedure library offers over 70 procedures callable from Pascal programs: DMA, Burst, and Interrupt transfers as well as extensive HPIB Bus Control commands. The LIF filer provides a means of creating files compatable with the HP Logical Interchange Format (LIF) to allow the exchange of data with devices implementing that format. The Mediainit utility initializes mass storage

media for use with the Series 200.

The Motorola MC68000 Assembler generates relocatable object code from assembly language source code. The resulting object code can then be executed stand-alone or called as procedures from Series 200 Pascal programs. The Assembler does not offer macro expansion capability.

#### **Features**

- Extensive separate compilation, librarian capability for modular program development
- Tree structured, menu driven for easy use

Powerful debugging capability

Automatic linking and loading of separate compilations

Creation of memory resident mass storage volumes for ultra-fast 'mass storage'

and the Pascal programming language providing

Compiled for fast execution

Readable programs

Modern, extensible, block-structured language

Clearly defined data structures complemented by flexible user-declared types

Assembly language subroutines

• 16, 32 bit integers, 64 bit read, Boolean, character, and text data types; user defined data types using arrays, records, sets, files, and pointers

• Compatability with Pascal/1000, UCSD Pascal extensions

System programming extensions for error trapping, memory addressing, more...

• I/O Procedure Library providing sophisticated device I/O and HPIB Bus Control Capability

 Graphics Procedure Library for graphics input/output to a variety of internal and add-on peripherals

#### **Environment**

Memory requirements for use of the Pascal operating system depend upon the application. For program development, a minimum of 593K bytes is recommended along with some form of external mass storage. This amount of memory along with external mass storage facilitates the use of the various program development subsystems. For systems to be used only for the execution of already compiled or assembled programs, less memory may be required depending upon the size of the programs to be executed and the amount of data storage they require. The operating system requires a minimum of approximately 130K bytes; additional memory required is application dependent. The Pascal Language System supports a maximum global area of 32K bytes which must be shared between system programs and user programs. However, the use of Pascal's dynamic allocation facility (the Heap) can be used to effectively extend the available data storage area to the size of available memory. The compile speed of the Pascal compiler depends upon the location of the source and object code files. Typical speeds range from 2500 lines per minute (from flexible disk) to 4000 lines per minute (from memory files.)

Pascal program execution: Generated code runs under the 9826/36 Pascal Language System.

#### ORDERING/HARDWARE INFORMATION

Series 200 Computers Mainframe(s):

See Price Sheet Price:

Add-on Pascal Language System: 98261A Opt. 715 – price \$1500 HP Software Part Number:

See discussion above under "Environment" paragraphs for memory **Memory Options:** 

requirements.

Language/ROMs:

Peripherals:

Comments:



HP USE ONLY

I.D. Code:

Application Code: 63.32001

Expiration Date:

Product Name:

UCSD PASCAL®



Mainframe(s):

HP-86/87

Software Description:

This product configuration is offered as an add-on Pascal Complier module for the user who already employs the UCSD p-System  $^{(8)}$ /Fortran-77 software development system. UCSD Pascal is not a stand alone product.

UCSD Pascal is the industry standard Pascal for micro computers. It is a fully developed and supported Pascal with extensions for system development and commercial applications programming. It is the preferred language for the user who demands support for complex data structures and a structured programming orientation. Pascal application software written on the p-System are completely compatible with and can be integrated into Assembly and Fortran program modules generated on the p-System.

Retail Price: To be announced

Hewlett-Packard product number \_

00087-13013

<sup>&</sup>lt;sup>®</sup>UCSD p-System and UCSD Pascal are trademarks of the Regents of the University of California.

#### SYSTEM REQUIREMENTS

Mainframe:

HP-86/87

ROMs:

Memory: 64K



Peripherals:

no additional peripherals requirements

#### **ADDITIONAL INFORMATION**

The p-System family of products are offered in the following configurations:

Product #	Configuration	Description
00087-13017	UCSD p-System/ PASCAL	Complete p-System software development systems featuring UCSD Pascal. Also supports Fortran-77 which is offered as an add-on module (00087-13014).
00087-13011	UCSD p-System/ FORTRAN-77	Complete p-System software development system featuring FORTRAN-77. Also supports UCSD PASCAL which is offered as an add-on module (00087-13013).
00087-13013	UCSD PASCAL	Add-on Pascal compiler. For the user who currently has 00087-13011.
00087-13014	UCSD FORTRAN-77	Add-on FORTRAN compiler For the user who currently has 00087-13012.

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## **HEWLETT-PACKARD**

#### **SOFTWARE SUMMARY**

Application Code:
63.42001

Mainframe(s) **HP 9000 Models 20,30&40** 

Program Title

**HP 9000 Pascal Compiler** 

#### **Program Description**

The HP 9000 Pascal compiler implements the Pascal high-level, block-structured programming language that can be used for program development in HP 9000 Computer Systems operating under the HP-UX Operating System.

Pascal combines good control structures and powerful data structuring with simplicity of use. It is easy to learn. Programs written in it are easy to read and a great deal of compile-time and run-time checking can be done to ensure program accuracy.

#### **Features**

- Easily understood programming.
- Powerful, compact syntax.
- Modern, block-structured language.
- Logical organization that facilitates documentation, modification and maintenance of programs.
- Early detection of errors at compile- and run-time.
- Fast debugging.
- Improved program reliability.
- Clearly defined data structures complemented by flexible user-declared data types.
- FORTRAN and C language subroutines.
- Fast execution.
- Integer, single and double precision real, Boolean, character, text file and user-defined data types using arrays, records, sets, files and pointers.
- Compatibility with HP 9000 software subsystems such as IMAGE and GRAPHICS/9000.

#### **Extensions to standard Pascal**

HP 9000 Pascal is a superset of "standard" Pascal as defined by the proposed ANSI standard. To avoid unintentional inclusion of HP 9000 Pascal extensions in a program that must be transportable to a system that executes only "standard" Pascal, the HP 9000 Pascal compiler includes an option for error-flagging any feature in an HP 9000 Pascal program that is not part of "standard" Pascal. Alternate returns allow program flow to return to a statement other than the one following the subroutine statement call (e.g. for error processing).

#### HP Pascal extensions include:

- 1. Double-precision floating point data.
- 2. Predefined procedures for direct access I/O.
- 3. Separate compilation with load-time linking of modules (in "standard" Pascal, the entire program must be compiled at the same time).
- 4. The CASE statement can have subrange labels and an OTHERWISE clause.
- 5. Constant-valued expressions are allowed in most places that a constant is allowed in "standard" Pascal.
- 6. Structured constants allow arrays, records and sets to be easily initialized.
- 7. Declarations may be in any order, except that LABEL must be first if it is used at all. More than one of each declaration section is allowed (such as two or more sections of TYPE, CONST and/or VAR declarations).
- 8. Identifiers may be up to a source line in length with all characters significant as opposed to only the first eight characters in "standard" Pascal.
- 9. A function may return any type of data including arrays, records or sets but excluding files or data types containing files.
- 10. MARK and RELEASE procedures supplement the "standard" Pascal facilities for dynamic memory management.
- 11. HP-UX system intrinsics, GRAPHICS/9000 and IMAGE Data Base Management calls are supported.

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	ORDERING/HARDWARE INFORMATION
	ORDERING/HARDWARE INFORMATION
Mainframe(s):	HP 9000 Models 20, 30 and 40
Price:	
111001	\$1010 ("R & M" product, single-user), \$3025. ("R & M" product, multi-user)
	product, single-user), 40020. ( K & M Product, mulu-user)
****	07072 A (7) A ( 4) A (
HP Software Part Number:	97072A/R/M (single-user), 97082A/R/M (multi-user)
Memory Requirements:	
wiemory Requirements:	
Peripherals:	
Peripherals:	
Peripherals:	
Peripherals:	
Peripherals:  Comments:	
	Contact your local HP Sales Office for additional information



## DISTRIBUTED **SOFTWARE SUPPLIER** PRODUCT SUMMARY

97027 JA (IEM-Macro)

HP USE ONLY

I.D. Code:

Application Code: 64.21001

**Expiration Date:** 

PRODUCT NAME

MAINFRAME(S)

## **IEM Macro-Assembler**

9835 and 9845

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The IEM Program Development System PDS can also support machine language programming. (See other sheets in this catalog for description of the PDS.)

> Machine Language is implemented by the PDS for the BPC processor (the native processor of the 9835 & 9845). It is available as a separate macro assembler option.

The macro assembler provides macro assembly facilities with encapsulation mechanisms for implementing procedures and functions. These are placed in libraries for later use by other languages such as Pascal. Assembly language can only be used and run from within other high-level languages.

#### Macro Assembler Features

- · Opcode mnemonics are the same as those used by the HP assembly option for BASIC.
- · Easy parameter passing to and from machine language procedures and functions.
- · Delimiting directives for procedures and functions.
- Label definitions and space allocation directives.
- · Powerful macro facility directives.
- Powerful conditional assembly directives.
- External and internal reference directive for inter-procedure and function communications.
- · Listing control directives.
- · Assembly source file chaining directives.

RETAIL PRICE:

\$800.00

To order - contact nearest HP Sales Office. Price subject to change without notice.

International Electronic Machinery, Inc. (IEM)

SOFTWARE SUPPORT:

P.O. Box 1818

ADDRESS:

TELEPHONE:

Fort Collins, CO 80522 Phone (303) 226-6672 TWX 910 930 9445

#### SYSTEM REQUIREMENTS Computer Model: **9835 or 9845** Peripherals: Any mass storage system other than tape. Memory: 128K or 196K Operating System: PDS 35 or PDS 45 Other Software: CUSTOMER SUPPORT Geographic Area Supported: ☐ Worldwide Canada Europe (all) ☐ Far East (all) ■ U.S. (all regions) □ Mexico .... ☐ East □ Latin America (all) □ South ☐ Midwest ☐ West ☐ South Africa □ Australia N.Z. Support Services Available: phone-in support mail-in support remote dial-in on-site consulting on-site systems engineers ■ program modification Additional Support Information and Pricing: CUSTOMER TRAINING/DOCUMENTATION Training Available: Yes, upon customer's request Price: Contact IEM Documentation Available: IEM Macro Assembler's User's Manual: Price: Contact IEM describing the assembly language option. Documentation Available in other languages: No NUMBER OF INSTALLATIONS: 10 DATE OF FIRST INSTALLATION: January 1981 ADDITIONAL INFORMATION **Support Services** IEM provides a free 90-day warranty period, during which any bug fixes or system updates will be sent automatically to the customer. The customer can also purchase additional support services such as phone-in consulting, systems engineering and training. The customer should arrange for such services directly with IEM. For further information, contact the software supplier:

#### RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:					
	64.22001				

Mainframe(s) 9845B

**Program Title** 

**Assembly Programmers Utility** 

#### **Program Description**

The Assembly Programmer Utility allows you to translate time-critical portions of a BASIC program into Assembly code. Using this low level language can dramatically speed up computations, graphics and I/O in your 9845 system. The utility offers you the ease of writing and debugging a program in BASIC plus the tools for speeding up portions of that program by using Assembly language.

When BASIC statements are entered into the computer, the code is interpreted line-by-line into machine language instructions which are then executed. Using Assembly language eliminates a

time-consuming step in the translation process.

The steps for the translation are: write the program in BASIC, debug it, SAVE the program, run the utility to translate the appropriate routines. The Assembly routines are saved in a target object data file so that they can then be executed in the user's application.

The Utility can be used to translate more than 75 Integer BASIC commands. It cannot translate real and string variables nor will it translate all BASIC integer, I/O and graphics commands in the 9845

system.

The Assembly Utility is particularly useful with data logging, fast graphics such as hidden line removal or rotation, fast integer computation such as sorting or limit checking, unbuffered I/O control and other tasks not requiring string or full-precision variables.

This software package assumes complete knowledge of 35/45 assembly language in order to

program around areas not covered in the utility.

#### Package includes:

- Two master tapes
- User's manual

,				
ORDERING/HARDWARE INFORMATION				
	ORDERING/HARDWARE INFORMATION			
Mainframe(s):				
Mainframe(s): Price:	9845B Opt. 150 \$500			
Price: HP Software Part Number:	9845B Opt. 150 \$500			
Price:	9845B Opt. 150 \$500			
Price: HP Software Part Number: Memory Options:	9845B Opt. 150 \$500			
Price: HP Software Part Number:	9845B Opt. 150 \$500			

Contact your local HP Sales Office for additional information

**Peripherals:** 98332A, 98339A

Comments:

## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: Expiration Date:

65.11001 1/1/83

Product Name:

Mainframe(s):

**COBOL/1000** 

HP 1000, E, F, XL

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

ANS. X3.23-1974 COBOL - Compatible with the HP 1000 RTE software base true compiler - not interpretative.

ENVIRONMENT - Compile time RTE-XL. RTE-IVB or RTE-VI. Needs a 28 page large background partition. 1 large ID block and 12 small ID blocks.

COBOL/1000 requires no EMA for execution. COBOL/1000 produces code which will operate on any HP 1000 computer.

COBOL/1000's high degree of compatibility with industry standard COBOL enables COBOL based programs to be transported from other processors to the HP 1000.

Retail Price:

\$5,000 First copy,

Runtime library \$200

Second and Subsequent copies \$2,500

Company Name:

Corporate Computer Systems, Inc.

Contacts: Chuck Nickerson

National Sales Manager

Address:

675 Line Road,

Joan Dillon

Telephone:

Aberdeen, N.J. 07747

**Products Manager** 

one: (201) 583-4422 TLX 642 672 CCS ABTW

SYSTEM REQUIREM	MENTS				
Computer Model:	HP 1000 E, F, XL		Peripherals:		
Memory: Minimu	ım				
Operating System:	RTE-IVB, RTE-6, RT	re-xl			
Other Software: No	one required				
CUSTOMER SUPPO	RT				
Geographic Area Sup	ported:				
☐ U.S. (all regions)	☐ Latin America (all)				
Support Services Ava	ilable:				
	⊠ maiJ- □ on-si				
Additional Support Information and Pricing:  Level 1 – Mail update service \$75/month  Level 2 – Includes Level 1, call-in or Telex support worldwide \$150/month					
CUSTOMER TRAIN	ING/DOCUMENTATIO	)N			
Training Available:	Yes, Aberdeen, N.J. (5 days or on-site cons	(50 miles South of N.Y.C sult Factory	C) Price: \$1,000		
Documentation Availa	able: Manual		Price: \$30		
Documentation Available in other languages: None					
NUMBER OF INSTALLATIONS: Released October 15, 1981  Released DATE OF FIRST INSTALLATION:					
ADDITIONAL INFO	RMATION				
Established HP 1006 days of CCS Level 2		opy at no-cost for 30 day	rs for evaluation – offer includes 30		
Potential HP 1000 buyers can purchase COBOL/1000 with the understanding that they have 90 days to evaluate COBOL/1000 from the date of their HP 1000 installation. This offer includes 90 days of CCS Level II Support.					

#### RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Expiration Date:

Application Code: **69.11001** 9/1/82

PRODUCT NAME HP/C Compiler MAINFRAME(S)

**HP 1000** E & F-Series

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The July 1977 issue of Datamation described C as "one of the most powerful structured languages yet implemented." C is at the same time a low level and a high level language. It allows the programmer to exercise the control over his computer that was once only found in assembly languages, yet it allows the productivity advantages found in languages like Pascal and PL/1.

Developed at Bell Telephone Laboratories, C is quickly gaining a large following. Corporate Computer Systems' compiler provides the full language and is totally interfaced to the HP environment. Once you use HP/C, programming will never be the same.

#### **FEATURES**

- Complete integration with current HP-Software Base
- Produces code which runs on all HP 1000 series computers
- UNIX compatible input/output library including Printf and Scanf
- Statements providing easy structured programming
- Source Level Debugger
- Macro prepass
- All functions are recursive
- Imbedded Assembly Language
- Character strings and arrays
- Multi dimensional arrays
- Structures
- Flexible type conversions in expressions
- Language extension features
- Optional macro prepass
- Permits Assembler source or relocatable output
- Optional mixed listing
- Complete integration with current HP-Software Base including RTE-IV, Image, FMGR. DS/1000, etc.

CONTACTS:

Chuck Nickerson

- Produces code which runs on all HP 1000 Series computers
- UNIX/TM compatible input/output library including printf and scanf

RETAIL PRICE: \$4,000.00 (See Additional Information section for more pricing data)

COMPANY NAME: Corporate Computer Systems, Inc.

675 Line Road

ADDRESS: Aberdeen, NJ 07747

TELEPHONE: (201) 583-4422

SYSTEM REQUIREMENTS	
Computer Model: HP 1000 Models 40, 45 Peripherals	
Memory: 25 page partition	
Operating System: RTE-IVB	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
☑ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	□ Far East (all)
□ East □ Latin America (all) □	
□ Midwest □ □	
□ West □ □ South Africa	☐ Australia/N.Z.
Support Services Available:	
☐ phone-in support ☐ mail-in support ☐ moil-in	☐ remote dial-in  ☑ program modification
Additional Support Information and Pricing:  22998V Level 1 Support \$ 50.00/month  22998T Level 2 Support \$150.00/month  22998Q Manual Update Service \$ 5.00/month	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: 22998I HP/C Refresher Course 22998J Intro to C Programming	Price: \$200/student (22998I) \$600/student (22998J)
Training classes at CCS, Aberdeen, NJ (on-site courses available)  Documentation Available: 22998M HP/C Reference Manual  22998K The C Programming Language	Price: \$20.00 (22998M) \$20.00 (22998K)
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 45 DATE OF FIRST INSTAL	LATION:
ADDITIONAL INFORMATION	
Ordering/Pricing Data:         22998A       HP/C       Relocatable Binary License       \$ 4,000.00         22998R       HP/C       Right To Copy       \$ 2,000.00         22998S       HP/C       Source License       \$10,000.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
RESPONSIBILITIES STATEMENT	
NEOF ORGIDIENTES STATEMENT	

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.



PRODUCT NUMBER 97030JA

#### HP USE ONLY

I.D. Code:

Application Code: 69.21001

**Expiration Date:** 

Product Name:	Mainframe(s):

9826A

HP 9826 MultiFORTH

9836A

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

HP 9826 MultiFORTH is a high-performance, uniquely interactive programming approach. It is specifically designed to optimize programmer efficiency and hardware performance in difficult process control and laboratory environments.

MultiFORTH is designed to be comfortably utilized by the applications engineer or scientist, who best understands the nature of the problem to be solved, without any requirement for a substantial background in computer science.

MultiFORTH is able to operate on any configuration 9826 or 9836 hardware without any requirement for external peripherals (64K bytes memory, internal floppy disc).

The user is able to fully utilize the extensive I/O and graphics features available in the 9826/36 products. Many application source code examples are supplied with the system, including full source for all demo's.

MultiFORTH is fully compatable with the FORTH 79-Standard, including double precision and assembler vocabularies.

#### MultiFORTH Unique Features:

- \* Multitasking.
- \* In-line Structured Assembler.
- \* Full Screen Editor.
- \* Loadable HP Floating Point.
- \* Loadable HP LIF File Compatability.
- \* Computer-Aided Instruction Course.

#### Add-on Features:

- \* Multi-User Capability.
- \* Data Access Methods.
- \* Metacompiler with complete source on disc.

Retail Price:

\$1500.00

Creative Solutions, Inc. Contacts: Pam Totta, Company Name:

Business Manager

Address:

4801 Randolph Road

Rockville, MD 20852

Telephone:

(301) 984-0262

SYSTEM REQUIREM	IENTS		
Computer Model:	9826A 9836A	Periph	erals: none required
Memory: 64K b	ytes		
Operating System:	Included		
Other Software: n	one		
CUSTOMER SUPPO	RT		
Geographic Area Supp	oorted:		
☐ Worldwide  ☑ U.S. (all regions)  ☑ East  ☑ South  ☑ Midwest  ☑ West	☐ Mexico ☐ Latin America (all) ☐	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Avail			
phone-in support on-site consulting	X)mail-in s Y on-site s	support systems engineers	☐ remote dial-in  ☐ program modification
device driver	plications journ s and detailed a	nal "Open Channel" applications notes Graphics, etc.) \$1	(DMA, Winchester Disc,
<b>CUSTOMER TRAINIF</b>	NG/DOCUMENTATION		
	eginning and adv	vanced courses .es	Price: \$425.00/day
Documentation Availal		<u>RTH</u> (tutorial manua Reference Manual	al) Price: n/a
Documentation Availal	ble in other languages:	none	
NUMBER OF INSTA	LLATIONS: 20	DATE OF FIRST INST	ALLATION: August, 1980
according to Software Pur Optional Sof 97031JA	ultiFORTH is ava the terms and c chase Agreement. tware Product Nu HP 9826 Multi HP 9826 Multi	conditions of the F	Option Methods Option



#### **HP USE ONLY**

I.D. Code:

Application Code: 69.21002

**Expiration Date:** 

Product Name:

TeleSoft-PSE including the TeleSoft-Ada compiler for the Hewlett Packard 9836.

Mainframe(s):

9836A

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The TeleSoft-PSE (Programming Support Environment) includes the TeleSoft-Ada compiler and many tools and development utilities for the sophisticated user.

Ada is a new, structured, high-level language, destined to become the most supported, best controlled, most versatile, and most standardized language ever developed. Originally specified on behalf of the U.S. Department of Defense for use in embedded systems, Ada is also a general purpose language that brings to the systems designer a whole new dimension and capability. Using Ada results in substantial cost savings and time savings.

Implementation of the PSE on the HP9836 is achieved by use of a native code translator and Run-Time Kernel. The TeleSoft Run-Time Support program runs as a normal Pascal program in the Hewlett Packard operating system environment. Extensions to the HP Run-Time environment have been implemented through the use of a bootstrap, HPROS, which runs on top of the HP operating system. This program loads the TeleSoft Run-Time Kernel (RTK) and the Ada language support (RSP) together with the user's programs. HPROS is included with the Run-Time Kernel on the price list.

The TeleSoft-Ada HP9836 Development Kit includes the following items: Run-Time Kernel (including bootstrap), TeleSoft's Ada operating system environment, standard development utilities, advanced development utilities, a powerful screen oriented editor, the TeleSoft-Ada compiler, including operating system function package, TeleSoft-Ada run-time support package, native code translator, and complete system documentation.

Features and benefits of the TeleSoft-Ada compiler are: strict type checking, exception handling, separate compilation, true portability, generics, multitasking, fast execution time, rigid standardization, and powerful I/0, timing and tasking facilities.

TeleSoft-Ada is the most productive, most complete and fastest Ada compiler now available.

The TeleSoft-Ada compiler is a substantial implementation of the Ada programming language. TeleSoft is committed to further development of the TeleSoft-Ada compiler to enable implementation of the complete Ada programming language which will be submitted to the Ada Joint Program Office for validation.

Ada is a trademark of the Department of Defense. TeleSoft-Ada is a trademark of TeleSoft.

Retail Price: \$3,360 - HP Development Kit; additional options are available.

Company Name: TeleSoft Contacts: See reverse side for regional

representatives

Address: 10639 Roselle Street, San Diego, CA 92121

Telephone: (714) 457-2700

SYSTEM REQUIREMENTS	
Computer Model: Hewlett Packard 9836	Peripherals: HP 9134A
Memory: 512K Bytes	or HP 9135A
Operating System: Hewlett Packard	
Other Software: Hewlett Packard 1.0 Pascal	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ Worldwide □ Canada ☒ Europe (all)   ☒ U.S. (all regions) □ Mexico □	
Support Services Available:	
<ul><li></li></ul>	<ul><li>remote dial-in</li><li>program modification</li></ul>
Additional Support Information and Pricing:  Eastern Regional Manager: Rosem Central Regional Manager: Glen W Western Regional Manager: Sheri	/hite
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Seminar and Workshops (4 days)	Price: \$250 - Seminar \$850 - Seminar and
Documentation Available: TeleSoft-Ada System Manual	workshop Price: \$75
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 80 DATE OF FIRST	T INSTALLATION: June, 1981
ADDITIONAL INFORMATION	

## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:
69.22001

Mainframe(s) Series 200 Program Title

Series 200 HPL 2.0 Language System

#### **Program Description**

HPL, Hewlett-Packard's high-level programming language, is renowned for its high performance and efficiency in handling computational and I/O operations. The power and performance of HPL is borne out by the success of the 9825. HPL provides you this high performance while maintaining an easy-to-use software development environment.

All HPL features have been carried over to the HPL 2.0 Language System on the Series 200, allowing compatibility with existing 9825 software. This reduces the 9825 to Series 200 upgrade

process to simple computer replacement, not system redevelopment.

The HPL 2.0 language system includes support of the commands available with the 9825T, 98211A Matrix ROM and the 98228A Flexible Disc ROM. The 9825's BCD-based math is emulated on the Series 200 so all arithmetic computations will be executed under the same numeric range and precision as the 9825. Numeric results are the same, whether on a 9825 or Series 200. The 9825's interface card register maps are emulated by the HPL Language System as well. Even though the Series 200 has a new set of interface cards, you can be assured of software transportability, even down to most register-level HPL I/O statements.

In addition, HPL 2.0 has been enhanced. This allows you to utilize the new hardware capabilities as well as improve the inherent capability of HPL as a programming language. HPL 2.0 enhancements fall into the following categories:

#### **Human Interface:**

- Full screen CRT multi-line program editing
- Full screen CRT output with enhanced graphics commands
- Keyboard knob for enhanced program-editing control
- Dynamic special-function key definition and CRT labelling
- User-definable system printer select code and printer character width
- Dumping alpha and graphics displays selectively to external printing devices or I/O buffers
- International keyboards
- 10-deep recall buffer

#### Mass Storage:

- Complete emulation of 9825 tape operations on disc-drive mass storage
- Compatibility with 98228A Flexible Disc ROM commands allowing access to 9885 & 9895 Flexible Disc Drives via resident 9825-HPL software
- Compatibility with BASIC 2.0 Language System data files
- Support of binary data files for increased performance and easy string I/O buffer storage
- Support of the 82900 Series 5¼ " mini-disc drives
- Optional use of DMA with the 9895 flexible disc drive for higher performance

#### Graphics

- Complete support for CRT and Plotter Graphics
- Support of Color Graphics on the Color Video Interface (98627A)
- Dump Graphics of CRT image to compatible printer

#### I/O Enhancements:

- Emulation of 9825 Interface Cards' register maps
- DMA available with HP-IB interface as well as GPIO interface
- Access to transfer buffer pointers
- Aborting of active buffer transfers
- Software-alterable HP-IB address
- Interrupt-routine link cancellation
- Reading of data into substrings
- · Rotary control knob for program interrupts
- Program access and control of internal clock and timers
- Transparent HP-IB transfer termination on End-or-Identify
- · Powerfail Recovery enhancements as an option

#### HPL 2.0 Software Transportability

HPL 2.0 provides a complete and easy upgrade path for your 9825 software and application in either of two ways: direct interface or via external 9885/9895 flexible-disc mass storage.

Interface Interconnect. 9825 HPL programs and data can be easily sent over HP-IB to the Series 200. For example, program transfer involves a simple 'list #731' of the program from the 9825, and a short program on the Series 200 that reads in the program and stores it into memory.

**External Mass Storage.** Any 9825 HPL program or data file stored on a 9885/9895 flexible disc can be read by the Series 200 with the HPL 2.0 Language System. In addition, disc file transfers allow key files to be transferred from the 9825 to the Series 200. Typical HPL external mass storage commands can be used to store and load HPL programs and data.

Due to the physical differences between the 9825 and Series 200 hardware, there are several differences in the systems.

- Keyboard access returns Series 200 keycodes instead of 9825 keycodes
- The keyboard and display control register does not exist
- Any 98035 real-time clock dependent code is not supported and should be modified to utilize the internal clock and timers
- Due to the differing internal architecture, 9825 memory dump and binary files are not supported by the HPL 2.0 Language System

In addition, the 9862A Plotter is not supported.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): Series 200 Computer

Price: See Price Sheet

HP Software Part Number: A

Memory Options:

Add on HPL Language System:

98604A (ROM)

98614A (RAM)

**Language/ROMs:** Minimum user read/write memory available:

(ROM-based): 42K bytes (approx.) (RAM-based): 193K bytes (approx.)

Peripherals:

Comments:

Contact your local HP Sales Office for additional information

## 7 Management Planning & Control

- 71 Records Management
- 72 Financial/Cost Management
- 73 Quality Control Management
- 74 Personnel Management
- 75 Order Management
- 76 Project Management
- 79 Other

	•	



HP USE ONLY

I.D. Code: 10082

Application Code: 71.31001

**Expiration Date:** 

Product Name:

## dBASE II

Mainframe(s):

HP 86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

dBASE II - - Data Base Management System.

dBASE II is a powerful, user-friendly data management tool for constructing and manipulating numeric and character information files.

A special feature of dBASE II is its own English-style program building language. You may SORT, EDIT, or DISPLAY a database directly from the keyboard, or write menus and programs to support your specific applications. Use the Full-Screen Editing facility to prompt operator input or to format data output into orderly, attractive reports.

The dBASE II package is a 350-page manual, a demonstration disk, and a full system disk. If not entirely satisfied after the trial period, customer may return to dealer for complete refund. The broad market acceptance of dBASE II assures the availability of programs already written for popular applications (e.g. accounting, mailing list, inventory).

With dBASE II, you can extend the power of your HP-86 or 87 to jobs that were previously reserved for larger mainframes. Here's only a partial list of applications that dBASE II has been used for:

General Ledger Journal of Accounts Accounts Receivable Accounts Payable Sales Tax Records Payrol1

Check Management and Writing Time Billing Inventory Control Job Costing Tax Computation Document Cross Referencing

Retail Price:

\$700.00

HP Product Number

00087-16004

Company Name: ASHTON-TATE

Contacts: Jim Taylor

Address:

9929 W. Jefferson Blvd. Culver City, CA 90230

Telephone:

(213) 204-5570

SYSTEM REQUIREMENTS	
Computer Model: HP-86, 87	Peripherals: One or more mass
Memory: 48K User RAM minimum	storage devices operating under CP/M (floppy disk drives): A
Operating System: CP/M	cursor addressable 24 line by 80 column CRT if full screen oper-
Other Software:	ations are to be used: Optional text printer (e.g. 82905A or B)
CUSTOMER SUPPORT	
Geographic Area Supported:	
<ul> <li>☐ U.S. (all regions)</li> <li>☐ East</li> <li>☐ Latin America (all)</li> <li>☐ South</li> <li>☐ Midwest</li> </ul>	Europe (all)
Support Services Available:	
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Both dealers and custom demo disk with document	
Documentation Available:	Price:
350-page manual sold wi	th demo disk.
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALLATION:
ADDITIONAL INFORMATION <u>dbase II</u>	SPECIFICATIONS
Records per database file Characters per record Fields per record Characters per field Largest number Smallest number Numeric accuracy Character string length	65535 max 1000 max 32 max 254 max ±1.8 x 1063 approx ±1 x 10-63 approx 10 digits 254 characters max
Command line length Report header length	254 characters max 254 characters max

### **HEWLETT-PACKARD**

### **SOFTWARE SUMMARY**

**HP USE ONLY** 

I.D. Code:

Application Code: 71.32001

**Expiration Date:** 

Product Name:	Mainframe(s):
HP 83/85 File Manager	HP 83, HP 85
Software Description:	

Introducing, the new Series 80 Management Tool . . .

Hewlett-Packard's new **HP 83/85 File Manager** software lets users of HP personal computers quickly create and manage information.

### **Broad Range of Uses**

It is always difficult to get instant access to information for analysis, strategic planning and decision-making. With the **HP 83/85 File Manager** software, you can find the information you need quickly and easily.

The HP 83/85 File Manager is designed for both the business and technical end-user. Business users can store and update lists, print mailing labels, analyze and organize sales data, trace orders, track inventory, etc. Technical users can analyze and process test data, maintain current bibliographies, collect "recipes" of chemical or pharmaceutical compounds, etc.

Users can create and enter data into a file structure and then perform searching, sorting, reporting and plotting functions. Reports can be generated in line, column or label format, and for greater impact, you can draw/plot line, curve, pie and bar charts.

#### **High Reliability**

**HP 83/85 File Manager** is fast, friendly and reliable. With the softkeys on the HP 83 and HP 85, you can select and initiate a command by pressing a single key. Each softkey is labeled on the screen, and a HELP key will guide you through each procedure. File Manager is also designed with abundant error-trapping and comprehensive data integrity checking to assure easy, reliable performance.

#### VisiCalc® PLUS Link

The **HP 83/85 File Manager** allows you to design a form for easy data entry. Each form (record) can have up to 1000 alphanumeric characters, and each file can have up to 1000 forms. Once entered, data can be updated, search (on up to 10 conditions), sorted (on up to 5 conditions), or even translated to a string data file for use with other software such as VisiCalc PLUS.

The HP 83/85 File Manager Software Pac sells for \$200 and is available in disc form only.

All items are available from HP personal computer dealers and HP Sales Reps.

Retail Price:	\$200	Hewlett-Packard product number	88103A

### SYSTEM REQUIREMENTS

Mainframe: HP 83, HP 85

ROMs:

Printer/Plotter Mass Storage

Advanced Programming

HP-IB Interface Card

Memory:

16K Byte Memory Module

Peripherals:

82901M 51/4" Flexible Disc Dual-Drive, or,

9135 51/4" Winchester/51/4" Floppy Combination Unit

An external printer and plotter may also be required depending on the need for reports and plotted output.

#### **ADDITIONAL INFORMATION**

Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE PROGRAM MATERIAL IS MADE AVAILABLE SOLELY ON AN "AS IS" BASIS, AND THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH THE USER. SHOULD THE PROGRAM MATERIAL PROVE DEFECTIVE, THE USER (AND NOT HP) SHALL BEAR THE ENTIRE COST OF ALL NECESSARY CORRECTIONS AND ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. HP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH

OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THE PROGRAM MATERIAL.

HP USE ONLY

I.D. Code:

Application Code:

72.11001

Expiration Date:

1/1/83

Product Name:	Mainframe(s):
General Ledger	HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Some TBS G/L features are: a) Full Chart of Accounts Maintenance. Uses 7 digit account number with a 3 digit sub-account number for profit centers or cost centers b) User generated wording and formats on Financial Statements c) User defined accounting periods (up to 13) d) CRT entry of G/L transactions; can be edited prior to posting. Running balance is displayed during entry e) Prints G/L Transaction Register f) Recurring entries module g) Transactions automatically distributed to several accounts on a % basis h) Counter-balancing entries automatically generated i) Handles accrual reversals j) Prints General Ledger Trial Balance with work space for adjustments k) Prints General Ledger List; selected by account # or date, and with detail or summarized l) Prints G/L Transaction Analysis by Source m) Allows CRT Inquiry into accounts by period n) Prints standard Financial Statements including Balance Sheet, Profit and Loss Statement, Supporting Schedules, and Source and Application of Funds reports o) Automatically interfaces to TBS A/R, Payroll, and A/P systems.

Retail Price:

\$2,500

Company Name:

Theta Business Systems

Contacts:

Larry Jones

Address:

1110 Sonora Ave., #106 Glendale, CA 91201 Steve Rinehart

Telephone:

(213) 242-7981, 245-0917

SYSTEM REQUIREMENTS	
Computer Model: HP 1000	Peripherals: Printer
Memory: 256KB (Multi-user)	
Operating System: RTE	
Other Software: None	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide	
🗵 phone-in support 🕱 mail-in support	☐ remote dial-in
☑ on-site consulting □ on-site systems engineers	
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Installation, Use, Modifications	Price: \$400/day
Documentation Available: User Manuals, Print-outs	Price: Included
Documentation Available in other languages: No	
NUMBER OF INSTALLATIONS: 30+ DATE OF FIRS	ST INSTALLATION: May 1980
ADDITIONAL INFORMATION	
·	
·	
DESCRIPTION OF STATEMENT	

**HP USE ONLY** 

I.D. Code:

Application Code: Expiration Date:

72.11002 1/1/83

Product Name:

Mainframe(s):

Accounts Payable

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Some TBS A/P features are: a) Full Vendor File maintenance including Alphabetical Vendor List b) Full Accounts File maintenance c) New payables are entered through the CRT with automatic voucher # assignment and batch control totals d) Prints A/P Voucher Register as transactions are posted to the A/P Open File e) Payables are distributed to G/L accounts and optionally by Job #'s f) Complete Job File maintenance g) Prints A/P Aged Trial Balance h) CRT inquiry by Vendor i) Prints Cash Requirements Report j) Payables may be selected for payment by type or individually. Selected items may be deferred k) Prints Check Verification Report prior to check printing l) Prints checks with invoice detail on stubs m) Prints Check Register showing all computer written, hand written and voided checks n) Prints A/P Distribution report in detail or summarized form o) Prints Vendor Analysis Report p) Prints A/P Job Distribution Report q) Check Reconciliation module r) Prints Cash Disbursements Report s) Allows use of multiple A/P, Cash, and Discount accounts

t) Automatically interfaces to TBS G/L system.

Retail Price:

\$2,500

Company Name:

Theta Business Systems

Contacts:

Larry Jones Steve Rinehart

Address:

1110 Sonora Avenue, #106

Glendale, CA 91201

Telephone:

(213) 242-7981, 245-0917

SYSTEM REQUIREMENTS	
Computer Model: HP 1000 Peripherals: Printer	
Memory: 256KB (Multi-user)	
Operating System: RTE	
Other Software: None	
CUSTOMER SUPPORT	
Geographic Area Supported:	
☑ Worldwide □ Canada □ Europe (all) □ Far East (all)   □ U.S. (all regions) □ Mexico □	
☐ East ☐ Latin America (all) ☐ ☐	
☐ South ☐ ☐ ☐ ☐ ☐ ☐	
□ West □ □ South Africa □ Australia/N.Z.	
Support Services Available:	
☑ phone-in support       ☑ mail-in support       ☐ remote dial-in         ☑ on-site consulting       ☐ on-site systems engineers       ☑ program modified	cation
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Installation, Use, Modifications Price: \$400/day	
Documentation Available: User Manual, Print-outs Price: Included	
Documentation Available in other languages: No	
NUMBER OF INSTALLATIONS: 15+ DATE OF FIRST INSTALLATION: July 19	81
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	

HP USE ONLY

I.D. Code:

Application Code: 72.11003 Expiration Date: 1/1/83

Product Name:

Mainframe(s):

Accounts Receivable

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Some TBS A/R features are: a) Handles open item and balance forward customers b) Full Customer File maintenance with alphabetical list c) Discount %, Tax %, and Finance Charge % may be set to a standard value for default, or set for each customer d) Separate Terms Code and Ship Code maintenance modules e) On-line entry of sales, CR memos, DR memos, and manual Finance Charges with batch totals for control of transaction flow f) Prints Sales Journal g) On-line entry of cash receipts, allows partial payments and payments to more than 1 invoice h) Prints Cash Receipts Journal i) A/R Open File contains full transaction detail j) Customer Aging Report prints in detail or summarized form k) CRT Customer Account Inquiry allows instant access to account information l) Prints Monthly Sales Summary and Monthly Cash Receipts Summary m) Statements may be selectively printed with aged totals and a tear-off remittance n) Prints A/R History Report o) Finance Charges automatically calculated and posted, prints Finance Charge Report p) Prints Salesman Commission Due Report q) Automatic interface to TBS G/L system.

Retail Price:

\$2,500

ł

Company Name:

Theta Business Systems

Contacts:

Larry Jones Steve Rinehart

Address:

1110 Sonora Avenue, #106

Glendale, CA 91201

Telephone: (

(213) 242-7981

SYSTEM REQUIREMENTS			
Computer Model: HP 1000		Peripherals: Printer	
Memory: 256KB (Multi-user)			
Operating System: RTE			
Other Software: None			
CUSTOMER SUPPORT	-		
Geographic Area Supported:			
Worldwide			
Support Services Available:			
□ phone-in support     □ ma     □ on-site consulting     □ on-site consulting		□ remote dial-in ☑ program modification	
Additional Support Information and Pricing			
CUSTOMER TRAINING/DOCUMENTAT	ION		
Training Available: Installation, Use, Mo	odifications	Price: \$400/day	
Documentation Available: User Manual	, Print-outs	Price: Included	
Documentation Available in other language	es: No		
NUMBER OF INSTALLATIONS: 15	5+ DATE OF FIRS	ST INSTALLATION: July 1981	
ADDITIONAL INFORMATION			



**HP USE ONLY** 

I.D. Code:

Application Code: 72.11004 Expiration Date: 1/1/83

Produ	ct	Nan	ne:	

Mainframe(s):

Payroll

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

TBS Payroll is a fully integrated automated Payroll system. Some of its features are:

a) Maintains Employee Master File containing extensive payroll and personal data. Produces Was-Is Report of all transactions b) Enters time worked through CRT and allows editing of transactions c) Automatic calculation of gross and net pay for hourly and salaried employees d) Handles regular, overtime, and premium pay rates e) Calculates Vacation, Holiday, Sick and Miscellaneous pay f) Up to 8 standard deductions which may be prioritized and have maximum limits g) Handles all standard pay frequencies h) Calculates FWT, SWT, FICA, FUI, City Tax, FUTA, and SUI i) Prints paychecks with Payroll Register detailing payroll calculations and prints Check Register j) Prints Labor Distribution Report k) Prints General Ledger Account Distribution Report l) Reconciles outstanding checks m) Prints 941-A, State Tax Registers, and W-2 forms n) Prints Payroll History Report o) Allows recording of hand written checks p) Prints Hours History Report g) Has ability to void checks r) Automatic interface to TBS G/L system.

Retail Price:

\$2,500

Company Name:

Theta Business Systems

Contacts:

Larry Jones

Steve Rinehart

Address:

1110 Sonora Avenue, #106

Glendale, CA 91201

Telephone: (213) 242-7981, 245-0917

SYSTEM REQUIRE	MENTS		
Computer Model:	HP 1000	Peripherals: Printer	
Memory: 256KI	B (Multi-user)		
Operating System:	RTE		
Other Software:	None		
CUSTOMER SUPPO	ORT		
Geographic Area Sup			
<ul><li>☑ Worldwide</li><li>☐ U.S. (all regions)</li></ul>		ope (all)	
☐ East	☐ Latin America (all) ☐		
□ South □ Midwest			
☐ West	□ □ Sou	th Africa	
Support Services Ava			
□ phone-in support     □ on-site consulting	⊠ mail-in support □ on-site systems en	☐ remote dial-in gineers ☑ program modification	
	nformation and Pricing:		
raditional Support in	normation and thomg.		
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	Installation, Use, Modification,	Price: \$400/day	
Documentation Avail	able: User manuals, print-outs	Price: Included	
Documentation Avail	able in other languages: No		
NUMBER OF INSTALLATIONS: New product DATE OF FIRST INSTALLATION: Estimate of December 15, 1981			
ADDITIONAL INFO	PRMATION		

### SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 72.11005

Expiration Date:

PRODUCT NAME

MAINFRAME(S) RTE OP SYS

HP-1000 HP-1000-L

A Small Manufacturers Business Software Tool Kit

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

The Business Tool Kit is a series of application programs that can be combined to form a powerful, but trouble-free, multi-usage and interactive financial management system. The tool kit consists of accounts payable, accounts receivable, general ledger, payroll, job cost, inventory, and sales order applications. The system is both manual and table-driven to make it easy to use and support and flexible to apply to any small business.

The tool kit is written in ANSI-74 COBOL and will run on HP-1000 M/E/F and 1000-L computers using the RTE operating systems. IMAGE, RSAM, and ISAM are alternative file systems that may be used. Extensive usage documentation is sufficiently detailed to allow easy implementation and training of system users. The COBOL Compiler is not required to run the object code, but is required for user modification of the source programs.

Phone in consultation and support is available on a yearly basis after the initial warranty period of six-months has expired.

RETAIL PRICE: \$1000 per application oject coade

\$1750 per application object & source code

COMPANY NAME: Portable Software Systems

CONTACTS:

David P. Olson

ADDRESS:

1846 W. Eddy St.

Chicago, Ill 60657

TELEPHONE:

(317) 525-0519

SYSTEM REQUIREMENTS				
Computer Model:	HP-1000 M/E/F or 1000-1	L Peripherals:	26xx Terminal 8" Floppy DIscs or	
Memory:	26-28 KW partition		any hand disc	
Operating System:	RTE IVB & 6 RTE XL			
Other Software:	IMAGE (920069) or (920 KSAM/1000; or ISAM/1000		Source Modification	
CUSTOMER SU	PPORT			
Geographic Area S	Supported:			
□ Worldwide  ■ U.S. (all regions □ East □ South □ Midwest □ West				
Support Services A				
		port stems engineers	☼ remote dial-in ✗ program modification	
Additional Support	t Information and Pricing: \$500/year regardless of	the number of appl	ications	
CUSTOMER TRA	AINING/DOCUMENTATION			
Training Available:			Price:	
Documentation Ava	ulable: User Document Training Guid		Price: \$25.00	
Documentation Available in other languages:				
NUMBER OF IN	STALLATIONS:	DATE OF FIRST INS	STALLATION:	
ADDITIONAL INF	FORMATION			
These packages are licensed from Open Systems, Inc. and were converted by Pontable Software Systems to the HP-1000. Open Systems Software is installed in 10,000 locations worldwide since 1974.				
RESPONSIBILITIE	S STATEMENT			
This software was	developed by an independent softwar	e supplier for operation on HP	computer systems. The supplier is solely	

This software was developed by an independent software supplier for operation on HP computer systems. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of such software or support. HP disclaims any and all liabilities for and makes no warranties, express or implied, with respect to this software. Distribution of this product or information concerning this product does not constitute endorsement of the product, the supplier, or support services. The customer is responsible for selection of the software it purchases.

HP USE ONLY

I.D. Code:

Application Code: 72.11006

**Expiration Date:** 

Product Name:

LEDGERSYSTEMS®

Mainframe(s):

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Ledgersystems<sup>®</sup> is a transaction processing, data base management system for managing a company's computerized business and financial records.

Except for the data base manager, who is an independent CPA or the company's full time controller, the only other skilled personnel required by Ledgersystems® are typists. And they are productive almost immediately doing data entry regarding the company's customers or clients, suppliers, employees, work in progress and backordered.

Because Ledgersystems<sup>®</sup> is always customized to each company's unique needs a minimum data entry volume of 200 transactions per day is recommended for doing all customer or client orders and invoicing, payables, deposits, payroll, checkwriting, etc.

Financial and management reporting from the data base is real time or daily, and reports are output onto a display or to hard copy in either custom or standard Ledgersystems<sup>®</sup> format.

In addition to the usual financial reports analyzing customer client profitability by product, by territory, etc., management reports are also available for work in progress control to aid managers in servicing customer clients and otherwise meeting their operating responsibilities.

Because Ledgersystems® is customized to order from orders placed by OEM's and CPA firms for their client companies, the benefit to the OEM or CPA firm is a guaranteed mark-up on the quoted cost of the delivered final product and on the post installation monthly fee for servicing the product.

The benefit to the client company is guaranteed satisfaction because the only final product delivered is relocatable object code together with appropriately customized user manuals.

Retail Price:

Fixed Price Quote Marked Up by the OEM or CPA (\$60K-\$250K)

Company Name: DNS,Inc.

Contacts: Ronald Marks, CPA

Address: 600 Harvey Street, Philadelphia, Pa. 19144

Telephone: 215 842 2400

SYSTEM REQUIREMENTS			
Computer Model: Most HP 1000's	Peripherals: MINIMUMS		
Memory: Minimum 32K words	(1) 2645A display system console		
Operating System:RTE L, XL, II,IV,VI	(1) dot matrix printer		
Other Software:	(1) hard disc drive with a minim. of 10 megabytes and preferably 20 megabytes.		
CUSTOMER SUPPORT			
Geographic Area Supported:	•		
□ Worldwide ★ Canada □ Europe (all)   ★ U.S. (all regions) □ Mexico □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available:Yes	Price: Fixed Price Quote		
Documentation Available: Yes	Price: Fixed Price Quote		
Documentation Available in other languages: Noonly English			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 1977			
In order to establish a business relationship and place their first order, the OEM or CPA firm must first send to Philadelphia at their expense a licensed CPA for two (2) days of technical schooling. The attending CPA receives 16 CPE credit hours in accounting and auditing.  RESPONSIBILITIES STATEMENT			

HP USE ONLY

I.D. Code:

Application Code: 72.11007

**Expiration Date:** 

Product Name:

LAWYERS LEDGERSYSTEMS®

Mainframe(s):

HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Lawyers Ledgersystems<sup>®</sup> is a transaction processing, data base management system for managing a law firm's computerized business and financial records.

Except for the data base manager, who is an independent CPA or the law firm's full time controller, the only other skilled personnel required by Ledgersystems® are typists. And they are productive almost immediately doing data entry regarding the firm's clients, suppliers, employees and legal matters in progress.

Because Lawyers Ledgersystems<sup>®</sup> is usually customized to each law firm's unique needs, a minimum data entry volume of 200 transactions per day is recommended for doing all unbilled time inventory, advanced client expenses, billings, deposits, payroll, checkwriting, etc.

Financial and management reporting from the data base is real time or daily, and reports are output onto a display or to hard copy in either custom or standard Ledgersystems<sup>®</sup> format.

In addition to the usual financial reports analyzing legal matters by client, by attorney, etc., management reports are also available for docket control, legal matter status, etc.

Because Lawyers Ledgersystems® is customized to order from orders placed by OEM's and CPA firms for their client law firms, the benefit to the OEM or CPA is a guaranteed mark-up on the quoted cost of the delivered final product and on the post installation monthly fee for servicing the product.

The benefit to the law firm is guaranteed satisfaction because the only product delivered is relocatable object code together with appropriately customized user manuals.

Retail Price:

Fixed Price Quote Marked Up By the OEM or CPA (\$30K and up)

Company Name: DNS,Inc.

Contacts: Ronald Marks, CPA

Address: 600 Harvey Street, Philadelphia, Pa. 19144

Telephone:215 842 2400

SYSTEM REQUIREMENTS			
Computer Model: Most HP 1000's	Peripherals: MINIMUMS (1) 2645A display system console		
Memory: Minimum 32K words	(1) dot matrix printer		
Operating SystemRTE L,XL,II,IV,VI	(1) hard disc drive with a minim.		
Other Software:	of 10 megabytes and preferably 20.		
CUSTOMER SUPPORT			
Geographic Area Supported:			
☐ East ☐ Latin America (all) ☐			
Support Services Available:			
	X) remote dial-in X program modification		
Additional Support Information and Pricing:			
Fixed Price Quote			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available:Yes	PriceFixed Price Quote		
Documentation Available:Yes	PriceFixed Price Quote		
Documentation Available in other languages Noonly English			
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION: 1977			
ADDITIONAL INFORMATION			
In order to establish a business relationship and place their first order, the OEM or CPA firm must first send to Philadelphia at their expense a licensed CPA for two(2) days of technical schooling. The attending CPA receives 16 CPE credit hours in accounting and auditing.			
DECRONCIPULITIES STATEMENT			

#### **HP USE ONLY**

'.D. Code:

Application Code;72.11008

Expiration Date: 9/83

Product Name:

ORDER ENTRY - ACCOUNTS RECEIVABLE

Mainframe(s):

HP1000 E, F & A Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Order Entry-Accounts Receivable System provides for on-line entry of customers' orders, updating of their status, and full maintenance of issued invoices as the accounts receivable of the company. A unique feature of the system allows for multiple definitions of the status of an invoice at installation time and complete reporting of a customer's purchases over a year's time.

There are three basic operating screens:

- Order Entry and Recall
- Customer Account Entry and Recall
- Invoice Recall and Maintenance

The principal reports and processing aids are:

- Aged Accounts Receivable
- Acknowledgement Generator
- Analysis
- Clear
- Deposit Summary
- Directory of Customers
- Equipment List
- History
- Invoice
- Job Tickets
- Labels
- Letters
- Overdue Accounts
- Productivity of Servicemen
- Sales Report
- Statements Generator
- Status of Open Orders
- Tax Work Sheet
- Trail

Prints order acknowledgements

Reports the profitability of accounts

Clears fully-paid invoices

Proof of deposit (audit trail)

List of equipment installed at a customer's place of business Purchasing record of a customer Print invoices and post to ledger Prints job tickets for repairs by a technician

Mailing labels sorted by zip code Letters to request payment on

delinguent accounts

Report of customers with delinquent balances

Breakdown of sales by employee
Monthly statements with aged messages

Worksheet for state (local) sales tax Audit trail of entered orders

Retail Price:

\$3,000 one-time license fee,500/year support

Company Name: AIM MANAGEMENT SERVICES, INC. Contacts: Craig B. Spengler

Address: P.O. Box 350128

Ft. Lauderdale, FL 33335

Telephone: (305) 584-0383

SYSTEM REQUIRE	EMENTS			
Computer Mo <u>del:</u>	HP1000 Models 40, 45, 6, ]6, Periphe	erals:		
Memory:	17 512KB			
Operating System:	RTE-IVB, RTE-A.1			
Other Software:	IMAGE/1000 (92069)			
CUSTOMER SUPP	OORT			
x South	Canada			
Midwest West	☐ ☐ ☐ South Africa	☐ ☐ Australia/N.Z.		
Support Services Av	vailable:			
🗴 phone-in support	∑xmail-in support g □ on-site systems engineers	☑ remote dial-in ☐ program modification		
Additional Support Information and Pricing: For more support information, contact AIM Management Services, Inc.				
CUSTOMER TRAIL Training Available:	NING/DOCUMENTATION  One week included in license fee	Price:		
Documentation Ava	ilable: Subsystem Manual	Price:\$50 extra copies \$200 w/o license		
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: 1978				
ADDITIONAL INF	ORMATION			
DESDONSIBILITIES	CTATEMENT			



#### **HP USE ONLY**

I.D. Code:

Application Code: 72.11009 Expiration Date: 9/83

Product Name:

GENERAL LEDGER - ACCOUNTS PAYABLE

Mainframe(s):

HP1000E,F & A Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The General Ledger-Accounts Payable System provides a company with a powerful means of managing accounts payable and a general ledger which includes project or departmental accounting levels. Cash requirements can be forecast, recurring payments are handled automatically by the system.

The general ledger accounts structure requires a four-digit account code with a three-digit modifier, plus a four-digit departmental or project code if desired. The maximum dollar value supported is \$20,000,000.00.

There are five basic operating screens:

- Ledger Account Maintenance
- Journal Account Maintenance and Folio Entry
- Payable Account Maintenance
- Payable Invoice Entry and Recall
- Capital Equipment Entry and Recall

The principal reports and processing aids are:

- Aged Accounts Payable

- Archived Journals Report

- Audit Trail - Folios

- Audit Trail - Payable Invoices

- Capital Equipment

- Chart of Accounts
- Depreciation Schedule
- Directory of Vendors

- End-of-Month

- Issue Payments

- Ledger Trial

- Post Folio(s)
- Post Invoice(s)
- Profit and Loss Report

- Required Cash

- Status of Payable Invoices

- Vendor

End-of-Month and -Year processing

Transactions audit trail

Transactions audit trail

Optionally can print checks for mailing

Past months for the fiscal yr. are reported

Summarizes future cash requirements

Assists in managing invoices to be paid

Tally of all invoices for a specific vendor

Retail Price:

\$3,000 one-time license fee, \$500/year support

Company Name: AIM MANAGEMENT SERVICES, INC.

Contacts: Craig B. Spengler

Address: P.O. Box 350128, Ft. Lauderdale, FL 33335

Telephone: (305) 584-0383

SYSTEM REQUIREMENTS				
Computer Model: HP1000 Models 40, 45, 6, 16, 17 Peripherals:				
Memory: 512 KB				
Operating System:				!
Other Software:	MAGE/1000 (92069)			
CUSTOMER SUPPOR	RT			
Geographic Area Supp	orted:			
			☐ Far East (all)	
□ U.S. (all regions) □ East	□ Mexico □ Latin America (all)			
☑ South				
<ul><li>☐ Midwest</li><li>☐ West</li></ul>			[] Australia/N.Z.	
Support Services Avail	able:			
x phone-in support	☑ mail-in su	pport	⅓ remote dial-in	
□ on-site consulting	☐ on-site sy	stems engineers	☐ program modif	fication
Additional Support Info AIM Management	ormation and Pricing: For Services, Inc.	r more support i	nformation, contact	
CUSTOMER TRAINI	NG/DOCUMENTATION		`	
Training Available: (	One week included in	license fee	Price:	
Documentation Available: Subsystem Manual			Price: \$50 extr \$200 w/c	ra copies o license
Documentation Available in other languages:				
NUMBER OF INSTA	LLATIONS: 2	DATE OF FIRST	INSTALLATION: 1978	
ADDITIONAL INFOR	RMATION			
			•	

**HP USE ONLY** 

I.D. Code:

Application Code: 72.11010

Expiration Date: 9/83

Product Name:

Mainframe(s):

PAYROLL

HP1000 E,F, & A Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Payroll System provides the user with a complete and self-maintaining means to produce payrolls. All federal reporting requirements are supported; individual state requirements other than unemployment compensation reports are implemented on an individual-case basis.

Records are maintained on employees for the current and preceding year to accommodate on-line retrieval of information. Reports are structured by divisions and departments within a company.

There are three basic operating screens:

- Employee Record Entry and Maintenance
- Payroll Calculation and Issue
- Maintenance screen for Entering Adjustments and Corrections

The principal reports and processing aids are:

- Current Payroll Proof Sheet
- Federal 940 Report
- Federal 941 Report
- Federal W-3 Transmittal and Employee W-2 Forms
- Issue Current Payroll Checks
- Ledger Transmittal Report
- Master File Report of Employees
- Reprint of Current Payroll Checks
- State Quarterly UCT Report
- Worksheet to Prepare Payroll
- Year-to-Date Composite Payroll Report

Retail Price: \$4,000 one-time license fee, \$650/year support

Company Name: AIM MANAGEMENT SERVICES, INC.

Contacts: Craig B. Spengler

Address: P. O. Box 350128, Ft. Lauderdale, FL 33335

Telephone: (305) 584-0383

SYSTEM REQUIREMENTS				
Computer Model: HP1000 Models 40, 45, 6, 16, 17 Peripherals:				
Memory: 512 KB				
Operating System: RTE-IVB, RTE-A.1				
Other Software: IMAGE/1000 (92069)				
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Support Services Available:				
<ul><li></li></ul>	□ remote dial-in     □ program modification			
Additional Support Information and Pricing: For more support information, contact AIM Management Services, Inc.				
CUSTOMER TRAINING/DOCUMENTATION				
Training Available: One week included in license fee Price:				
Documentation Available: Subsystem Manual	Price: \$50 extra copies \$200 w/o license			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 2 DATE OF FIRST INSTALLATION: 1978				
ADDITIONAL INFORMATION				
RESPONSIBILITIES STATEMENT				

**HP USE ONLY** 

I.D. Code:

Application Code: 72.11011

**Expiration Date:** 

Product Name:

Mainframe(s):

MEDICAL BILLING SYSTEM

HP1000 E,F, & A Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Medical Billing System is a comprehensive accounts receivable and health insurance claims filing system. It is designed for use in either a practicebased or a hospital-based application. The system can be operated in either an on-line or a batch processing mode.

There are four basic operating screens:

- Patient Account Information and Status

- Transaction Entry and Recall

- Insurance Claim Entry and Recall

Patient Account Remarks (when used on-line)

The principal reports and processing aids are:

- Aged Trial Balance

Current to over four months

- Bills Generator

Data mailer or "fold-and-stuff"formats;

messages are aged automatically Current and prior twelve months

- Charges Breakdown

Up to four letters in the series

- Collection Letter Generator

- Credit Balance Summary

- Delinquent Accounts Summary - End-of-Month Checkoff Chart

To aid in end-of-month processing

- Held Charges (In-patients)

To double-check with hospital roster

- Insurance Claims Follow-up Letter

- Insurance Forms Generator

Prints standard HIC forms

- Insurance Transmission

Prepares soft-media or direct-link (RJE)

transmission of insurance claims

- Office Ledger Cards Generator Optional; used for batch processing

- Patients' Name & Address Roster Ready-reference for desk use

- Payments Breakdown

Aged 13 months by payment category

- Small Balance Report

Special form of the Aged Trial Balance

- Transaction Entry Audit Trail Hard copy of transactions entered

-Transactions Summary

Summarizes the month's transactions; available in several formats depending upon

type of processing environment

Retail Price:

\$32,000 one-time license fee, \$300/month support

Company Name: AIM MANAGEMENT SERVICES, INC.

Contacts: Craiq B. Spengler

Address: P. O. Box 350128, Ft. Lauderdale, FL 33335

Telephone:

(305) 584-0383

SYSTEM REQUIREMENTS			
Computer Model: HP1000 Models 40, 45, 6, 16, 17 Periphera	ls:		
Memory: 512 KB			
Operating System: RTE-IVB, RTE-A.1			
Other Software: IMAGE/1000 (92069)			
CUSTOMER SUPPORT			
Geographic Area Supported:			
□ Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □			
Support Services Available:			
□ phone-in support	√ remote dial-in □ program modification		
Additional Support Information and Pricing: For more support information, contact AIM Management Services, Inc.			
CUSTOMER TRAINING/DOCUMENTATION			
Training Available: Two seeks included in license fee	Price:		
Documentation Available: Subsystem Manual	Price: \$100 extra copies \$500 w/o license		
Documentation Available in other languages:			
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTALLATION: 1979			
ADDITIONAL INFORMATION			

## SOFTWARE SUPPLIER PRODUCT SUMMARY

HP USE ONLY

I.D. Code:

Application Code: 72.21002

**Expiration Date:** 

PRODUCT NAME

MAINFRAME(S)

MASTER ACCOUNTING SYSTEM

9845B

PRODUCT DESCRIPTION: (basic product information, user-specific details, major features & benefits, etc.)

Password ID allows selection of operator program functions.

2. Finger-tip access to all customer, vendor, job, employee and general ledger account information.

3. Elimination of any double posting methods.

4. Automatic posting and complete interfaces between various program modules.

5. High-level reporting functions at operator command.

- 6. A) Accounts Receivable
  - (1) Total reduction in accounts receivable due to improved cash flow.
  - (2) Time and money saving through invoice and statement gereration.

B) Accounts Payable

- (1) Total control of vendor invoices eliminate the possibility of making payments to the wrong vendor.
- (2) Time savings on automatic check generator.

C) General Ledger

- (1) Instantaneous financial status of company: could save thousands each year by elimination of business decisions based on incomplete or inaccurate information.
- (2) Complete interface to all journals: save much time when books are closed monthly and yearly. Reduces accounting costs.
- D) Job Costing
  - (1) Saves money through more accurate cost information for bidding on future jobs.
  - (2) Saves money through tighter controls on job in progress.
  - (3) Automatic billing report eliminates costly errors.
  - (4) Saves time and money, by meeting EPA regulations.
- E) Payroll
  - (1) Saves time in: production of payroll checks, 941 information, W-2 forms.
  - (2) Saves money by eliminating service bureau and/or reducing accountant's time.
  - (3) Provides strong controls in employee records.

RETAIL PRICE: \$11,000 License (See Additional Information over)

**COMPANY NAME:** 

Holquin & Associates, Inc.

CONTACTS: Roger Marr

ADDRESS:

P.O. Box 12990

5822 Cromo Drive

TELEPHONE:

El Paso, TX 915-581-1171

SYSTEM REQUIREMENTS			
Computer Model: 9845B, opt 313  Memory:  Operating System:	2631 (opt 8	inimum configura 345) printer and isk. Disk requi	9885
Other Software:	vary with size of installation.		tion.
CUSTOMER SUPPORT	77.17		
Geographic Area Supported:			
□ Worldwide □ Canada □ Europe (a □ U.S. (all regions) □ Mexico □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ill)		
Support Services Available:			
<ul> <li>         □ phone-in support         □ on-site consulting         □ on-site systems engineer     </li> </ul>	S	□ remote dial-in ⊠∷program modifi	cation
Additional Support Information and Pricing:			
Support service prices quoted on request			
CUSTOMER TRAINING/DOCUMENTATION  Training Available: 11 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		include (	hown do not coach airfar
Training Available: Up to 5 days on site training available varies with modules purchased.  Documentation Available  Included with software  Documentation Available in other languages: English only		Price food, loc programme site trai Price installat	er during on inin <b>g</b> and
varies with modules purchased.  Documentation Available:  Included with software  Documentation Available in other languages: English only		programme site trai Price installat	er during on- ining and tion. **
varies with modules purchased.  Documentation Available:  Included with software  Documentation Available in other languages: English only  NUMBER OF INSTALLATIONS: 2 DATE OF  ADDITIONAL INFORMATION Description Separate M General Ledger 250 Job Cost w/EPA Extensions Payroll Accounts Receivable 250	F FIRST INST	programme site trai installat	er during on- ining and tion. **
varies with modules purchased.  Documentation Available  Included with software  Documentation Available in other languages: English only  NUMBER OF INSTALLATIONS: 2 DATE OF  ADDITIONAL INFORMATION  General Ledger  Job Cost w/EPA Extensions  Payroll  MASI 250	F FIRST INST	programme site trai installat ALLATION: Jan 19	er during on- ining and tion. ** 980 _icense (Can
varies with modules purchased.  Documentation Available  Included with software  Documentation Available in other languages: English only  NUMBER OF INSTALLATIONS: 2 DATE OF  ADDITIONAL INFORMATION Description Separate M General Ledger Job Cost w/EPA Extensions Payroll Accounts Receivable Accounts Payable  General Ledger, Job Cost  MAS II	F FIRST INST	programme site trainstallate installate  ALLATION: Jan 19  License(US) L  11000**  7800**  rements vary	er during on- ining and tion. **  980  12760**  9110**

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### Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 72.21003

Expiration Date:

Product Name:

Mainframe(s):

JOB COST

9845/9835

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Job Cost System computes labor cost directly from time cards, producing employee performance records and providing specific and overall views of the status of each project. The following reports are provided:

- \* Pay Period Report lists all employees, hours worked, and cost dollars.
- \* Time Card Report produces in calendar form the hours worked for each employee and overhead category.
- \* Utilization Report summarizes the hours worked in each overhead category and the percentage of company time expended on each.
- \* Project Report gives a chronological list of all hours worked. Work for the same day is sorted by job classification. A detailed description of each task is printed in paragraph form.
- \* Status Report produces month-to-date, year-to-date, and job-to-date cost and charge dollar amounts and the current and job-to-date invoices, receipts, and balances due.

Unlimited descriptions of work done for each time card entry is allowed and an accounting of materials used may be recorded. Five different charge rates are allowed for each job classification. Charges are calculated based on the type of activity and the rate table assigned to each project. A summary of the hours worked by each employee during a pay period provides a good check on payroll records.

This system was designed for a service oriented company and can be modified to suit individual users.

In addition to a 9845 (or 9835), two floppy disks (9885 M/S) are required along with an impact printer. All programs run with 100K bytes of user memory or less.

Retail Price:

\$900.00

Company Name: Amalgamated Business Systems, Inc.

Contacts: John B. Stokes

Address:

7910 South Memorial Parkway, Suite H

Huntsville, AL 35802

Telephone:

(205) 882-2360

SYSTEM REQUIREMENTS	
Computer Model: 9845A or 9845B or 9835A	Peripherals: Master and Slave Flexible Disks
Memory: Minimum of 50K Bytes	132 Column Printer
Operating System:	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
□ South         □            □ Midwest         □	
□ West □ □ South Africa	☐ Australia/N.Z.
Support Services Available:	C somether disting
☑ phone-in support ☑ mail-in support ☑ on-site consulting ☑ on-site systems engineers	□ remote dial-in  ☑ program modification
Additional Support Information and Pricing: \$40.00/hour + Expenses	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On-site training for software installation.	Price: \$35.00/hour + Expenses
Documentation Available: User and Operating Manuals.	Price: Included in purchase.
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 3 DATE OF FIRST	ST INSTALLATION: 1980
ADDITIONAL INFORMATION	
Hardware requirements may vary with size of firm.	
DECRONGIBILITIES STATEMENT	

### Software Supplier Product Summary

#### **HP USE ONLY**

I.D. Code:

Application Code: 72.21004

Expiration Date:

Product Name:

Mainframe(s):

ACCOUNTING SYSTEM

9845/9835

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Three security codes control access to each accounting sub-system by several accounting personnel.

GENERAL LEDGER: The General Ledger system is a complete comprehensive, double-entry bookkeeping system, which provides up-to-date financial information. This program provides for departmentalized financial reporting, 500 General Ledger accounts with 99 subaccounts, and 2200 current transactions per month. Information is automatically transferred to the General Ledger from the Accounts Payable and Payroll systems. Income Statements and Balance Sheets designed by the user are produced by this program, along with many other useful reports.

PAYROLL: The Payroll system performs all the Payroll processing needs accurately and quickly while keeping track of tax information and other management reports for up to 350 employees. Payroll handles salaried, hourly, and commissioned employees in the same payroll run. Three different hourly rates, six voluntary deductions, ten local taxes, and ten state taxes are allowed. The user manual provided shows the user how to write his own state tax routine.

ACCOUNTS PAYABLE: The Accounts Payable system provides current and accurate payable accounts data on either a cash or accrual basis. This program produces a Cash Requirements Report, an Accounts Payable Aging Report, an Outstanding Invoices Report, Check Register, and Vendor History Report. The Payables checks are written and the charges are automatically transferred to the General Ledger if Payables is integrated to the General Ledger.

INVENTORY CONTROL: The inventory control system provides current and accurate inventory data for up to 2500 items per disk, with 150 new transactions and 50 parts for each parts requirement. This program produces valuable management reports on such information as total dollar value on hand, when to reorder, low usage of parts, inventory turnover rates, potential shortages, and slow-moving inventory.

ORDER ENTRY/ACCOUNTS RECEIVABLE: This System provides a complete comprehensive package of order entry, billing and receivables accounting. The program produces order, production, and salesmen's reports and prints shipping labels and packing slips for filled orders. The Accounts Receivable is an open item system that handles invoices, receipts and credit memos, and produces monthly statements for each customer. An Accounts Receivable Aging Report, a Customer History Report, a Monthly Tax Report, and an Over Credit Limit Report are included. This system allows for 450 customers and 400 invoices on the single sided disk.

In addition to a 9845 (or 9835), two floppy disks (9885 M/S) are required along with an impact printer. All programs run with 50K bytes of user memory or less.

The above programs will be available on the 9836 in the fall of 1982.

Retail Price:

\$4,500.00

Company Name: Amalgamated Business Systems, Inc.

Contacts: John B. Stokes

Address:

7910 South Memorial Parkway, Suite H

Huntsville, AL 35802

Telephone:

(205) 882-2360

SYSTEM REQUI	REMENTS		
Computer Model:	9845A or 9845B or	9835A	Peripherals: Master and Slave Flexible
Memory:	Minimum of 32K B	ytes	Disks 132 Column Printer
Operating System	:		
Other Software:			
CUSTOMER SUF	PPORT		
Geographic Area	Supported:		
<ul> <li>□ Worldwide</li> <li>☒ U.S. (all regions</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Latin America		
Support Services			
□ phone-in suppo     □ on-site consult		mail-in support     on-site systems engineers     on-site	□ remote dial-in ▼ program modification
Additional Suppor	t Information and Pr	ricing: \$40.00 hour + Expenses	
CUSTOMER TRA	INING/DOCUMEN	ITATION	
Training Available	On-site training fo	r software installation.	Price: \$35.00/hour + Expenses
Documentation Av	vailable: User and O	perating Manuals.	Price: Included in purchase.
Documentation Av	vailable in other lang	guages:	
NUMBER OF IN	STALLATIONS: 11	DATE OF FIRS	ST INSTALLATION: 1978
	FORMATION		¥*
ADDITIONAL IN		alandari barahan balan III. I	
Programs may b purchased or siz which will run o have a 132 colum	e of firm. The Payro n the 9835A, 9845A, an printer connected	ll Demo Package contains many or 9845B. You will not need any	ware requirements may vary with program of the actual programs with sample data disk to run the Demo, however you should mentation is included. Credit for the cost of lowing.

### Software Supplier **Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 72.21005

**Expiration Date:** 

Product Name:

**PROTRAVEST** 

Mainframe(s):

9845 B/T/C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

**PROTRAVEST** 

Investment Analysis Program

#### Features:

- IRR (Internal Rate of Return) computation for complex scenarios of future cash flows, investments, borrowings and combinations thereof. IRR is a standardized universal measure of future return or loss. It is equivalent to compound interest rate in that simple case but is broadly appropriate to compare investments ordinarily described differently and avoids the frequent deceptions when future returns are non uniformly presented.
- 2. Calculates present value of future complex scenarios of investment, borrowing, etc. In the simplest case this is equivalent to discounting future dollar worth to its present value.
- 3. All of the above is performed either with or without tax implication. Also, shelter can constitute part of the complex scenarios that may be input.
- 4. Complete mortgage calculations and printouts of month by month status for years to come are obtainable and may be input as part of the investments or cash flows for analysis.
- 5. The program is easy to use...you needn't be an economist nor a programmer!

Retail Price:

\$100 plus tax, shipping, and media extra. Disks or tapes available.

Company Name: PROTRACOA

Contacts: David Kleitman

Address:

1134 Aster Ave., Suite K Sunnyvale, CA 94086

Telephone:

(415) 948-6611

SYSTEM REQUIREMENTS		
Computer Model: 9845 B/T/C	Peripherals	:
Memory: 187k required		
Operating System:		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
Worldwide	ail)	□ Far East (all) □
Support Services Available:		
© phone-in support	on-site systems engineers	□ remote dial-in ☑ program modification
CUSTOMER TRAINING/DOCUMENTA	ATION	
Training Available: Not required		Price:
Documentation Available: Manual in	ncluded	Price:
Documentation Available in other langua	ages: No	
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALL	ATION:
ADDITIONAL INFORMATION		
Program requires a minimu	m of training and support.	
·	· •	
responsible for its software and support ser	endent software supplier for operation on HP ervices. HP is not the manufacturer or co-develop express or implied, with respect to the supplier,	er of this software and makes no

# **Software Supplier Product Summary**

### HP USE ONLY

I.D. Code:

Application Code: 72.21006

Expiration Date:

Product Name:			Mair	nframe(	s):		
Return on Investment Analysis			9835A	<b>,</b> 9845	B,C		
PRODUCT DESCRIPTION: (please begin with			nclude	basic	produc	ct	
information, user-specific details, major featur	es and benefits, e	etc.)	YE	AR OF	FRO	JECT	
		9	1	2	3	4	5
Program Description	I. CASH OUTFLOWS						
ROI is a general-purpose program giving a quick	A. CAPITAL EXPEND. EQUIPMENT FREIGHT, INSTALL., TAX	1700 300	200	300	500	0	0
return on investment analysis of projects. The software allows office personnel to readily	TOOLING FREIGHT, INSTALL., TAX	0	ŏ	0	0	0	0
prepare budget requests with an executive sum-	MISC. EXPEND. 01 MISC. EXPEND. 02	0	0	0	0	0	0
mary without the mathematical know-how. Even the company name and division can be easily	SUBTOTAL EQUIPMENT SUBTOTAL TOOLING TOTAL CAPITAL	2000 0 2000	200 0 200	300 0 300	500 0 500	0	0
inserted to give an official appearance at cor-	TOTAL CAPTIAL	2000	200	300	500	•	
porate meetings. 44k bytes are used on the 9835 A.	P. WORKING CAPITAL INVENTORY	0	0	o	0	o	0
	RECEIVABLES HISC. WORKING CAP. 1	0	0	0	0	0	0
<u>Features</u>	MISC. WORKING CAP. 2	0	0	0	0	0	U
Depreciation rates can be updated as needed	C. EXPENSES START-UP COSTS	200	٥	0	٥	۰	0
Variable project life (1-10 yr.) and length of depreciation	REARRANGEMENT RESEARCH & DEVEL	0	0	0	0	0	0
Tax and discount rates are variable	EXPENSE TOOLING HISC. EXPENSES 1	0	0	0	0	0	0
After each data input an update of the cash	MISC. EXPENSES 2 SUBTOTAL EXPENSE	200 100	0	0	0	o o.	0
flow is presented on the screenUpon completion of the data input an analysis	TAXES AT .5 AFTER TAX EXPENSE	100	ò	ŏ	Ö	ŏ	ŏ
can be displayed so other variables can be in-	II. CASH INFLOWS						
serted before a hardcopy is printedAnalysis is automatically given in 5 or 10	SAVINGS MISC. INFLOWS 2	0	1400	2900 0	3500 0	0	0
years, depending on the time duration	MISC. INFLOWS 3 MISC. INFLOWS 4	0	0	0	0	0	0
<ul> <li>Executive summary gives rate of return, pay- back period, annual after tax savings and net</li> </ul>	MISC. INFLOWS 5 MISC. INFLOWS 6	0	0	0	0	0	0
present value at your predetermined rate	MISC. INFLOWS 7 MISC. INFLOWS 8 MISC. INFLOWS 9	0	0	0	0	0	0
Benefits	EQUIPT. DEPRECIATION TOOLING DEPRECIATION	0	-300 0	-440 0	-420 0	-420 0	-420 0
Knowledge of accounting procedures are not	SURTOTAL INFLOWS	٥	1100	2460	3080	0	٥
needed	TAXES AT .5 A.T. INFLOWS	0	550 550	1230 1230	1540 1540	0	0
Easy to submit budget requests	INVESTMENT TAX CREDIT TERMINAL VALUE DEPRECIATION	200	0 300	440	300 420	0 420	420
Promotes a good review of small projects which were not worth analyzing before	NET CASH INFLOW	ŏ	850	1670	2260	420	420
Gives a basis for comparing various methods							
of evaluating return on investmentsA standard format allows requests to be re-	TOTAL OUTFLOWS TOTAL INFLOWS	-1900 0	-200 850	-300 1670	-500 2260	420	420
viewed faster with the assurance of correct	CASH FLOW RESULTS	-1900	650	1370	1760	420	420
calculations Saves time/money	ILISCOUNTED AT .35	-1900	481	752	715	126	94
		RETU	RN ON IN	VESTMENT		36.8	
		PAYR Unna	ACK PERIO	DD SAVINGS		1.9	
		NET	PRESENT (			4B.0	
Retail Price: \$300							
Company Name: Square D Company		Contac	ts: Go	rdon	Hetze	1	
,							
Address: P. 0. Box 4000							
Pinellas Park, FL 3356	5 .						
Telephone:							
(313)541 7744							

SYSTEM REQUIREMENTS	
Computer Model: HP9835A, 9845B, C Memory: 44K	Peripherals: Printer is needed if hardcopy is desired. (minimum
Operating System:	8" width paper). Printer Device Select
Other Software:	Code = 10
CUSTOMER SUPPORT	
Geographic Area Supported:	
Image: Market of the control of the con	Europe (all)
Support Services Available:  A phone-in support  M mail-in support	ort □ remote dial-in
☐ on-site consulting ☐ on-site syste	
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: Not needed.	Price:
Documentation Available: User Instructions are supplied with	
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALLATION:
ADDITIONAL INFORMATION	
DESPONSIBILITIES STATEMENT	



I.D. Code: 10083 Application Code: 72.31001

**Expiration Date:** 

Product Name:

Mainframe(s):

### General Ledger

HP-86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



The Series 8 General Ledger is the center of a sophisticated series of interactive business application packages. Used independently or in connection with other Series 8 packages, it allows the manager to maintain a complete financial picture of his business.

#### **FEATURES**

- \* 100 departments with 10 summary departments.
- \* Master and subsidiary accounts.
- \* Optional departmental income state-
- \* Financial statements with subsidiary schedules.
- \* Depreciation and amortization schedules.
- \* Automatic posting of transactions from other Series 8 packages.
- \* Single-transaction limit:\$9,999,999.99.
- \* Year-to-date limit: \$21,000,000,00.
- \* Flexible chart of accounts set-up to incorporate user's current accounting books.
- \* User-defined formatting of financial statements:
  - Nine account type codes.Three balance column codes.
- \* Comparative balance sheet and income statement with prior-year information or budget amounts.
- \* Automatic updating of current earnings and retained earnings accounts.
- \* Automatically assigned batch numbers for data entry control.

#### CHART OF ACCOUNTS FILE

The user can enter, change, delete or query information in this file, including:

- \* Five- or six-digit account numbers.
- \* Up to 25 alphanumeric characters for account description.
- \* Account type (title, posting or totaling).
- \* Current account balance.
- Period beginning balance.
- \* Prior-year financial or budget comparison information.

#### TRANSACTION FILE

Account number, transaction description, reference, source code, transaction date, batch number, transaction amount.

Retail Price: Call HP or Your Local Dealer

HP Part Number 00087-16010

Company Name:

PEACHTREE SOFTWARE INCORPORATED

Contacts:

PEACHTREE SOFTWARE PRODUCT CENTER

Address:

3445 Peachtree Road, N.E.

8th Floor

Atlanta, Georgia 30326

Telephone:

(404) 262-2376

SYSTEM REQUIR	EMENTS		
Computer Model:	HP-86, 87	Peripher	
Memory:	Minimum 64K User RAM		Disc Drive and Printer
Operating System:			
Other Software:			
CUSTOMER SUP	PORT		
Geographic Area S	upported:		
	Mexico  Latin America (all)		
Support Services A			
	rt	rt ns engineers	<ul><li>☐ remote dial-in</li><li>☐ program modification</li></ul>
Additional	Information and Pricing: User resupport available from Pea \$28.00/hour (\$10.00 Min	achtree Software In	support with purchase. c. for \$100.00 year/
CUSTOMER TRA	INING/DOCUMENTATION		
Training Available:	Contact Peachtree Soft	ware Inc.	Price:
Documentation Ava	ailable:		Price:
Comprehensiv	e manual and documentatio	n included with pur	chase.
Documentation Ava	ailable in other languages:		
NUMBER OF INS	STALLATIONS:	DATE OF FIRST INSTA	LLATION:
ADDITIONAL INF	FORMATION	SAMPLE CAPACITIES	*
1. Chart of A 2. Transactio 3. Trial Bala 4. Balance Sh	n Register Ince	Number of Accounts	Approximate Transactions per Period
<ol><li>Income Sta</li><li>Depreciati</li></ol>	tement on/Amortization Schedule thart of Accounts Control	200 300 500	1900 1800 1600
9. Enter Tran 10. Delete Tra 11. Transfer S	isactions Control insactions Control immary Journals Control is STATEMENT	* Using HP 5½ inc	h Disc





I.D. Code: 10083

Application Code: 72.31002

**Expiration Date:** 

**Product Name:** 

### Accounts Receivable

Mainframe(s):

HP-86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



The Series 8 Accounts Receivable will help the user prepare bills for, and obtain timely collections from, his customers, thus minimizing lost or delayed revenues through bookkeeping errors or paperwork delays. It will print invoices, statements and aging reports and maintain customer account information, sales taxes and the accounting detail for posting to General Ledger. Accounts Receivable can be used with the Series 8 General Ledger.

#### **FEATURES**

- \* Balance-forward or open-item customers \* Browse feature for accessing customer or a combination.
- \* Automatic calculation of finance charges on average daily balance or ending balance.
- \* User-defined minimum finance charge.
- \* Five user-defined terms codes.
- \* Six-digit automatic or manual invoice number.
- \* Ability to calculate finance charges on finance charges.
- \* Can update Inventory through the Sales \* Transaction consolidation for greater Invoicing package (sold separately).
- \* Taxable and nontaxable sales tax reporting by state, county and municipal localities.
- \* Ability to set tax rates on fractional dollar amounts.
- \* Payments can be applied:
  - Automatically by oldest invoice
  - To specific invoices.
  - Unapplied payment, later reconcilable.

- records.
- \* Open credit reconciliation:
  - For all or selected customers.
  - By oldest invoice first.
  - To specific invoices.
- \* Ability to post summary or detail transactions to the General Ledger.
- \* Examine customer status on the CRT or printer.
- \* Ability to reprint invoices.
- diskette capacity.
- \* Aged statements.
- \* Sales reporting in summary or detail.
- \* Credit limit check.
- \* Taxable/exempt freight charges.
- \* A line discount can be set by customer.
- \* Identification and calculation of early payment discounts.
- \* Transaction limitation-\$9,999,999.99.
- \* Year-to-date total limitation of \$21 million.

Retail Price:

Call HP or Your Local Dealer

HP Part Number 00087-16011

Company Name: PEACHTREE SOFTWARE INCORPORATED

Contacts:

Address:

3445 Peachtree Road, N.E. Atlanta, Georgia 30326

PEACHTREE SOFTWARE PRODUCT CENTER

Telephone:

(404) 262-2376

SYSTEM REQUIREMENTS		
Computer Model: HP-86, 87	Peripherals: Disc Drive and	
Memory: Minimum 64K User RAM	Printer.	
Operating System:		
Other Software:		
CUSTOMER SUPPORT		
Geographic Area Supported:		
U.S. (all regions)	purope (all)	
Support Services Available:		
★ phone-in support	☐ remote dial-in ☐ program modification	
Additional Support Information and Pricing: User rece	ives 30 day free support with purchase.	
Additional support available from Peac package or \$28.00/hour (\$10.00 minimum		
CUSTOMER TRAINING/DOCUMENTATION		
Training Available: Contact Peachtree Software	Inc. Price:	
Documentation Available:	Price:	
Comprehensive manual and documentation Documentation Available in other languages:	included with purchase.	
NUMBER OF INSTALLATIONS: DA	ATE OF FIRST INSTALLATION:	
ADDITIONAL INFORMATION		
CUSTOMER MASTER FILE	SAMPLE CAPACITIES*	
<ol> <li>Up to six-character customer ID.</li> <li>Sales tax information.</li> <li>Credit limit.</li> </ol>	(Assuming 10 Sales Tax areas and 50 different accounts)	
4. Discount percentage. 5. Terms.	Number of Approximate Transactions Customers per Period	
<ul><li>6. Finance charge percentage.</li><li>7. Current balance.</li><li>8. Date/amount of last debit.</li></ul>	100 2300 200 2050 300 1750	
<ol> <li>Date/amount of last credit.</li> <li>Year-to-date sales/payments.</li> <li>Date/amount of last service charge.</li> </ol>	*Using HP's 5¼" flexible disc	



I.D. Code: 10083

Application Code: 72.31003

Expiration Date:

Product Name:

Mainframe(s):

### Accounts Payable

HP-86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



The Series 8 Accounts Payable packages can be used as in independent application or can be interfaced with the Series 8 General Ledger. Besides maintaining a complete file for each vendor, it will help determine which invoices to pay by due date or discount date or within certain cash requirements. By supplying the manager instant information on his accounts payable, it enables him to save money by claiming all discounts due him and helps him keep his vendor accounts current. It will print checks and a check register.

#### **FEATURES**

- \* Year-to-date total limit:\$21,000,000.00.
- \* Cash requirements forecast by due date.
- \* Aging Report showing amounts due each vendor classified into six time periods.
- \* Entry of monthly items for automatic posting of recurring invoices.
- \* Automatic posting to user-defined General Ledger accounts for cash, discounts and accounts payable.
- \* Optional automatic posting to Series 8 General Ledger in detail or summary.
- \* Option to prohibit deletion of invoices.
- \* Option to require control reports to provide a complete audit trail.
- \* Allows entry of prepaid invoices to properly maintain accurate vendor information.
- \* Distribution of each invoice up to eight General Ledger expense acocunts.
- \* Vendor File with complete current and year-to-date information on each vendor.
- \* Ability to apply credits to a specific invoice or as an open credit against a vendor record.

- \* Single-transaction limit: \$ 9,999,999.99. \* Ability at any time to examine the status of any vendor, including current and year-to-date balances as well as all current period transactions, with option to print a paper copy.
  - \* Automatic selection of invoices for payment based on user-defined discount and due dates; or manual selection of individual invoices for payment.
  - \* Printing of checks with a detailed check stub listing all invoices paid by that check.
  - \* Open invoice report in order by vendor code showing any available discounts, the total due for each vendor and the total due for all vendors.
  - \* Transaction Register printed at end of period.

Retail Price:

Call HP or Your Local Dealer

HP Part Number 00087-16012

Company Name:

PEACHTREE SOFTWARE INCORPORATED

Contacts:

Address:

3445 Peachtree Road, N.E. Atlanta, Georgia 30326

PEACHTREE SOFTWARE

Telephone:

(404) 262-2376

PRODUCT CENTER

SYSTEM REQUIR	EMENTS		
Computer Model:	HP-86, 87		Peripherals: Disc Drive and Printer
Memory:	Minimum 64K User RAM		Disc Diffe and Fillioci
Operating System:			,
Other Software:			
OUCTOMED CURE			
CUSTOMER SUPF	OKI		
Geographic Area St			
<ul><li>☐ Worldwide</li><li>☑ U.S. (all regions)</li></ul>	☐ Canada ☐ Mexico	□ Europe (all)	□ Far East (all)
☐ East	□ Latin America (all)		
☐ South ☐ Midwest			
□ West		☐ South Africa	
Support Services A			
phone-in support	t □ mail-in su g □ on-site sy	upport /stems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional su		Peachtree Softwa	y free support with purchase. re Inc. for \$100.00 year/
CUSTOMER TRAI	NING/DOCUMENTATION		
Training Available:	Contact Peachtree So	oftware Inc.	Price:
Documentation Ava	ilable:		Price:
Comprehensive	manual and documenta	tion included wi	th purchase.
Documentation Ava	ilable in other languages:		
NUMBER OF INS	TALLATIONS:	DATE OF FIRS	T INSTALLATION:
ADDITIONAL INF	ORMATION	CAMDIE CADACTET	EC #
REPORTS	F23 -	SAMPLE CAPACITI	<del></del>
3. Enter Cred	ices Control Reports lits Control Report	Number of Vendors	Approximate Transactions per Period
4. Delete Inv 5. Transaction	roices Control Report	100	950
6. Examine Ve		200	850 850
7. Open Invoi	ce Report	300	750
	rements Report		
9. Aging Repo 10. Check Regi		* Using HP's 5	inch Disc



I.D. Code: 10083

Application Code: 72.31004

**Expiration Date:** 

Product Name:

Mainframe(s):

## PeachPay tm Payroll System

HP-86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



The Series 8 PeachPay tmPayroll System offers a comprehensive range of controls over all aspects of the payroll accounting function, including tax and other with-holding requirements. It can be used by itself or in connection with the Series 8 General Ledger.

#### **FEATURES**

\* PeachTax tm tax record maintenance service (available by annual subscription) to keep user updated on tax changes.

\* Utilizes comprehensive tax algorithm structure to represent almost any tax withholding requirements.

\* Maintains employee history for current, \* Provides up to eight earnings cate-Month-to-date, quarter-to-date and year-to-date earnings and deductions.

\* Supports weekly, biweekly, semi-monthly and monthly pay periods.

\* Total year-to-date limit: \$9,999,999.99. \* Misc. categories can be defined by

- \* Tracks sick and vacation days used and accrued.
- \* Provides up to 12 deduction categories, including:
  - Federal income tax.
  - FICA.
  - Four state, local or other tax with- \* Maintains two overtime rates. holding entities.
  - Six miscellaneous deductions.
- \* Allows additional tax withholding for any employee at the federal, state or local levels.

- \* Six miscellaneous deductions that are user defined and can be an amount of a percentage of gross with a ceiling.
- \* Allows allocation of taxes among multiple tax entities and handles nonresident employees.
- gories, including:
  - Regular - Commissions
  - Two overtime categ. - Tips
  - Three miscellaneous income categ.
- the user and, along with tip income. can be designated as disbursed or non-disbursed.
- \* Maintains commission percent and shift for the appropriate pay types.
- \* Tracks draw against commission amounts
- \* Maintains two shift differentials. which can be hourly amounts or by percentages.
- \* Earned Income Credit is calculated and reported.

Retail Price:

Call HP or Your Local Dealer

HP Part Number 00087-16013

Company Name: PEACHTREE SOFTWARE INCORPORATED

Contacts:

Address:

3445 Peachtree Road, N.E. Atlanta, Georgia 30326

PEACHTREE SOFTWARE PRODUCT CENTER

Telephone:

(404) 262-2376

PeachPay and PeachTax are trademarks of Peachtree Software, Inc

SYSTEM REQUIRE	EMENTS		
Computer Model:	HP-86, 87	Perip	herals:
Memory:	Minimum 64K User RAM		Disc Drive and Printer
Operating System:			
Other Software:			
CUSTOMER SUPP	ORT	-	
Geographic Area Su			
☐ Worldwide ☐ U.S. (all regions)	☐ Canada ☐ El ☐ Mexico ☐ ☐ Latin America (all) ☐ ☐ ☐		☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Support Services Av	vailable:		
	☐ mail-in support ☐ on-site systems e	engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>
Additional s	Information and Pricing: User recesupport available from Peach \$28.00/Hour (\$10.00 Minim	ntree Software	ee support with purchase. Inc. for \$100.00/ year
CUSTOMER TRAIL	NING/DOCUMENTATION		
Training Available:	Contact Peachtree Software	inc.	Price:
Documentation Ava	ilable:		Price:
Comprehensiv	ve manual and documentation	included with	purchase.
Documentation Ava	ilable in other languages:		
NUMBER OF INST	TALLATIONS: DA	ATE OF FIRST INS	TALLATION:
ADDITIONAL INF	ORMATION		
4. Pay Check 5. Payroll F 6. Deduction 7. Payroll S 8. Paymaster 9. Post Curr 10. General L	List Pay Edit List Register Is Register Summary P's Worksheet/Time Card Entirent Period Control Report Ledger Transaction Register	12. 941 Wor 13. 941-A S 14. FUTA Re 15. W-2 For 16. Deleted	itate Wage Report port
RESPONSIBILITIES	STATEMENT		



I.D. Code: 10083

Application Code: 72.31005

**Expiration Date:** 

Product Name:

Mainframe(s):

### Inventory Control

HP-86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)



The Series 8 Inventory system offers the user detailed control over all facets of his inventory operations, whether used alone or in conjuction with the Series 8 Accounts Receivable.

#### **FEATURES**

- \* Three price levels for each inventory
- \* Standard Cost or Average Cost option.
- \* Grouping of inventory items by depart- \* Up to three-digit department numbers. ment for meaningful reporting.
- \* Inventory Master File containing information about sales and costs for the current period and year to date. as well as reordering information.
- \* Ability to examine the status of an inventory item at any time with the option to print a "hard copy" of the information.
- \* Comprehensive management reports, including price lists, current period status reports, departmental summaries, physical inventory reports, reorder reports and period-to-date and yearto-date reports.

#### INVENTORY MASTER FILE

This file provides comprehensive information to accurately track cost and stock movement. It includes:

- \* Up to 15-character product code and description.
- \* Unit of measure (e.g., each, dozen).
- \* Vendor ID and item number (up to eight alphanumeric characters).
- \* One standard and two optional prices.
- \* Reorder level and quantity.
- \* Period beginning balance (in units).
- \* Current period activity (in units and dollars).
- \* Year-to-date sales and cost of sales.

#### TRANSACTION TYPE

The Series 8 Inventory Control permits the entry of four types of transactionssales, returns, receipts and adjustments

Retail Price:

Call HP or Your Local Dealer

HP Part Number\_00087-16014\_

Company Name: PEACHTREE SOFTWARE INCORPORATED

Contacts:

Address:

3445 Peachtree Road, N.E. Atlanta, Georgia 30326

PEACHTREE SOFTWARE PRODUCT CENTER

Telephone:

(404) 262-2376

SYSTEM REQUIREM	MENTS		
Computer Model:	HP-86, 87	Periphera	
Memory:	Minimum 64K User RAM		Disc Drive and Printer
Operating System:			
Other Software:			
CUSTOMER SUPPO	PRT		
Geographic Area Sup	ported:		•
☐ U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐	Europe (all)	
	☐ mail-in support ☐ on-site system		☐ remote dial-in ☐ program modification
Additional sur package or	formation and Pricing: User recopport available from Peac \$28.00/hour (\$10.00 Minim	htree Software Inc	support with purchase. . for \$100.00 year/
CUSTOMER TRAINI	NG/DOCUMENTATION		
Training Available:	Contact Peachtree Softwa	re Inc.	Price:
Documentation Availa	able:		Price:
	manual and documentationable in other languages:	included with pure	chase.
NUMBER OF INSTA	LLATIONS:	DATE OF FIRST INSTAL	LATION:
ADDITIONAL INFO	RMATION	SAMPLE CAPACITY	
3. Examine Inve 4. Inventory St 5. Inventory Pt 6. Detail Inver	actions Control Report entory Status tatus Report rice List ntory Report I Summary Report ventory Report ort ate Report	Using HP's 51 incl	h disc, you may have O inventory items.



I.D. Code: 10086

Application Code: 72.31006

**Expiration Date:** 

Product Name:

TAJ I-85 (The Accounts Journal) Mainframe(s):

HP-85

PRODUCT DESCRIPTION: (please begin with a product abstract then include basic product information user-specific details, major features and benefits, etc.)

#### GENERAL LEDGER

- Simulataneous Debit/Credits Posting
- Always in balance
- Four level, six digit account numbers
- Automatic depreciation on fixed assets
- Detailed financial reports
- Complete account edit and review

#### ACCOUNT RECEIVABLE

- Your 6-digit customers numbers
- Transaction detail by customer
- Balance forward
- Automatic finance charge posting
- Automatic monthly charge posting
- INTERFACES TO GENERAL LEDGER

#### ACCOUNT PAYABLE

- Your 6-digit vendor numbers
- Transaction detail by vendor
- Balance forward
- INTERFACES TO GENERAL LEDGER

#### **PAYROLL**

- Your 6-digit employee numbers
- Automatic deduction posting
- End of year W-2 data
- 10 deductions, 6 user definable
- INTERFACES TO GENERAL LEDGER

SOUTH.

#### ADDITIONAL FEATURES

- TAJ is written in BASIC with the Native operating system...NO NEED FOR A CP/M CARD

38 JOE

- TAJ allows for hard disc or floppy disc operation with NO SOFTWARE MODIFICATION
- TAJ has been successfully used by Series 80 Users since January of 1981...USER PROVEN
- TAJ programs all reside on one disc...NO PULLING DISCS IN AND OUT

IN LINE

WILLES.

- TAJ allows THE USER to set up data discs...ONE DISC HOLDS EACH COMPANY'S DATA

加量法制的 100181-15000

08516-0010 21085-02

00.75 OOLOES: POS only

21085-03A

PIDS only

"Completely INTEGRATED accounting specifically designed for the Series 80 computers."

Retail Price:

\$1,500.00

Hewlett-Packard product number 00085-16001

Contacts:

Richard West Jan Carrillo

Address: The supplier is solary

2386 Fair Oaks Blvd Ste 210

Telephone: Secremento, CA 95825

SYSTEM REQUIRE	MENTS			
Computer Model:	HP-83/85	Periphe	rals:	
Memory:	TAJ I-83/85: 32K	*	Any HP Compa	table Hard
Operating System:	NATIVE (CP/M card not needed)		Disc with Single Any HP Compa	
Other Software:	NONE (TAJ comes complete)	*	Floppy Disc Printer/Plotter Mass Storage R	
CUSTOMER SUPPO	ORT			
Geographic Area Sur	pported:			
<ul> <li>□ Worldwide</li> <li>☑ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Latin America (all) ☐			
Support Services Ava	ailable:			
	<ul><li>☐ mail-in support</li><li>☐ on-site systems engine</li></ul>	ers	□ remote dial-i □ program mod	
- 30 Days Softw - TAJ Users Gro	nformation and Pricing: Pare Phone-In Support Pup: \$100 annual fee (Newsletter, D (Users Group is OPTIONAL)	ocumentation	n Support, Softw	are Support)
Training Available:			Price:	,
Documentation Avail	able:		Price:	
Documentation Avail	lable in other languages:			
NUMBER OF INST	ALLATIONS: Forty-two (42) DATE O	F FIRST INST	ALLATION: J	anuary, 1 <i>9</i> 81
ADDITIONAL INFO	PRMATION ********** ORDE	RING INFOR	MATION ****	****
Product Name TAJ I-85 TAJ I-85 Promot TAJ I-85 Graphic TAJ I-85 Forms	32 K (only) \$ : tion Pac 32 K (only) \$ : cs Pac 32 K (only) \$	Retail 1,500.00 45.00 250.00 250.00	HP Part # 00085-16001 08516-001D PDS only PDS only	PDS Part # 21085-01 21085-02 21085-03A 21085-03B
"TAJ" and "The A	product 'Distributed' by Hewlett-Faccounts Journal" are trademarks of		Data Systems,Sa	cramento CA
RESPONSIBILITIES	STATEMENT			



I.D. Code: 10086

Application Code: 72.31007

anama and kanaman an anaman.

**Expiration Date:** 

Product Name:

TAJ I-87 (The Accounts Journal)

Mainframe(s):

HP-86/87

entil toe noncesson ropes feed but

OLEMAN DOMESTICATION

PRODUCT DESCRIPTION: (please begin with a product abstract then include basic product information, user-specific details, major features and benefits, etc.)

#### GENERAL LEDGER

- Simulataneous Debit/Credits Posting
- Always in balance
- Four level, six digit account numbers
- Automatic depreciation on fixed assets
- Detailed financial reports
- Complete account edit and review

#### **ACCOUNT RECEIVABLE**

- Your 6-digit customers numbers
- Transaction detail by customer
- Balance forward
- Automatic finance charge posting
- Automatic monthly charge posting
- INTERFACES TO GENERAL LEDGER

#### **ACCOUNT PAYABLE**

- Your 6-digit vendor numbers
- Transaction detail by vendor
- Balance forward
- INTERFACES TO GENERAL LEDGER

#### **PAYROLL**

- Your 6-digit employee numbers
- Automatic deduction posting
- End of year W-2 data
- 10 deductions, 6 user definable
- INTERFACES TO GENERAL LEDGER

#### ADDITIONAL FEATURES

- TAJ is written in BASIC with the Native operating system...NO NEED FOR A CP/M CARD
- TAJ allows for hard disc or floppy disc operation with NO SOFTWARE MODIFCATION
- TAJ has been sucessfully used by Series 80 Users since January of 1981... USER PROVEN
- TAJ I-87 can handle up to 6400 GL Accounts, 4800 Customers, 4800 Vendors and 800 Employees with the 512 K Memory option
- TAJ programs all reside on one disc...NO PULLING DISCS IN AND OUT
- TAJ allows THE USER to set up data discs...ONE DISC HOLDS EACH COMPANY'S DATA

"Completely INTEGRATED accounting specifically designed for the Series 80 computers."

Retail Price:

\$1,500.00

Company Name:

pus Production Data Systems

Contacts:

Richard West Jan Carrillo

Address:

2386 Fair Oaks Blvd Ste 210 Sacramento, CA 95825

Telephone:

(916) 484-0155: Retail Sales Office

SYSTEM REQUIRE	MENTS					
Computer Model:	Model: HP-86/87		-	Peripherals:		
Memory:	TAJ I-87: 64K Minimum			* Any 80/132 printer  * Any HP Compatable Hard		
Operating System:	NATIVE (CP/M card not needed)			Any HP	h Single Floppy; OR Compatable Dual	
Other Software:	NONE (TAJ com		Floppy Disc			
CUSTOMER SUPPO	ORT					
Geographic Area Suj	pported:					
🖪 U.S. (all regions)	Canada Mexico Latin America (a	II)			East (all)	
Support Services Ava	ailable:					
	□ m □ oı	nail-in support n-site systems engineers	<b>;</b>		ote dial-in ram modification	
<ul> <li>30 Days Softw</li> </ul>	Additional Support Information and Pricing:  - 30 Days Software Phone-In Support  - TAJ Users Group: \$100 annual fee (Newsletter, Documentation Support, Software Support)  (Users Group is OPTIONAL)					
CUSTOMER TRAIN	IING/DOCUMENTA	TION				
Training Available:				Price:		
Documentation Available:				Price:		
Documentation Available in other languages:						
NUMBER OF INST	ALLATIONS:	DATE OF	FIRST INSTA	LLATION:		
ADDITIONAL INFORMATION ************************************						
Product Name TAJ I-87 TAJ I-87 Promotion Pac TAJ I-87 Graphics Pac TAJ I-87 Forms Pac * While the minimum TAJ		Memory Version Specify on P.O.* 64 K (only) 64 K (only) 64 K (only) 7 memory is 64 K, and	\$ \$ \$	,500.00 45.00 250.00 250.00	PDS Part # 21087-01 * 21087-02 21087-03 A 21087-03B	
		nced' by Hewlett-Pac are trademarks of P		)ata Syste	ems,Sacramento CA	
RESPONSIBILITIES :	STATEMENT					



I.D. Code: 10049

Application Code: 72.31008

Expiration Date:

Product Name: DATA - FLEX PAYROLL SYSTEM

Mainframe(s):

HP-83 or HP-85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DATA-FLEX PAYROLL. This system, which has been designed for companies with up to 200 employees, can be used by anyone who can write a payroll by hand. Once a year you will set up the Tax Tables by using a simple to use maintenance program. Then, throughout the year timesheets will be entered, and checks and a variety of reports will be printed. At the end of the year, the DATA-FLEX system will print W-2's for all employees.

business.

FEATURES	CAPACITIES
=======================================	22355555555555555555555555555555555

EIC TAX CAPABILITY

UP TO 200 EMPLOYEES

MANUAL AND AUTOMATIC CHECKS

UP TO 1600 TIMESHEETS PER CYCLE

These are the capacities per data disc. With the DATA-FLEX dual disc

system, the programs and data are each stored on a separate disc.

This means that multiple data discs may be used with one program disc.

In this way you can use the system to process the data for more than

200 employees or for more than one

JOB COST REPORT

CHECK PRINTING

MTD AND YTD PAYROLL REPORTS

TAX TABLE MAINTENANCE PROGRAM

TAX BRACKET REPORT

W-2 PRINTING

VARIABLE OVERTIME RATE

FULL BACKUP PROGRAMS

FULL TELEPHONE SUPPORT

DATA-FLEX is a trademark of Racing Services. Inc.

Retail Price:

\$300.00

Company Name: Racing Services, Inc.

Contacts: Norman Champ

Joanne Yamauchi

Address:

1555 River Park Drive, #213

Sacramento, California 95815

Telephone:

(916) 929-1517

SYSTEM REQUIRE	EMENTS					
Computer Model:	HP-83 or HP-85	Peripherals:				
Memory:	Additional 16K required.	HP-IB Interface HP-85/83 ROM Drawer				
Operating System:	Basic	External 80 col. printer Dual Disc Drive				
Other Software:	Printer/Plotter ROM Mass Storage ROM	Dual Disc Dilve				
CUSTOMER SUPP	ORT					
Geographic Area Su	pported:					
<ul><li>☑ Worldwide</li><li>☐ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Mexico ☐ ☐ Latin America (all) ☐					
Support Services Av						
□ phone-in support     □ on-site consulting     □		☐ remote dial-in eers				
Additional Support Information and Pricing: Call for information.						
CUSTOMER TRAIL	NING/DOCUMENTATION					
Training Available: Call for in	formation.	Price:				
Documentation Available: Complete 68 page Instruction Price: \$25.00 Manual (included with the DATA-FLEX P/R System).						
Documentation Ava None	ilable in other languages:					
NUMBER OF INSTALLATIONS: DATE OF FIRST INSTALLATION:						
ADDITIONAL INF	ORMATION					
Also Available: DATA-FLEX Accounts Receivable System DATA-FLEX General Ledger System Demonstration Discs						
* These items are available for immediate shipment!						



I.D. Code: 10049

Application Code: 72.31009

**Expiration Date:** 

Product Name: Data-flex

ACCOUNTS RECEIVABLE SYSTEM

Mainframe(s):

HP-83 or HP-85

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DATA-FLEX ACCOUNTS RECEIVABLE. This is a system that has been designed for simplicity, efficiency, and flexibility. Using menu driven programs you enter invoices, memos, and receipts for each customer. A separate journal is provided for each type of transaction. At the end of each month an automatic monthly charge and/ or a service charge on past due amounts may be generated before statements are printed. The Aged Trial Balance may be printed as required.

FEATURES 

CAPACITIES

\_\_\_\_\_

80 COLUMN REPORTS

UP TO 500 CUSTOMERS

FULL TELEPHONE SUPPORT

UP TO 5000 TRANSACTIONS PER MONTH

MONTHLY CHARGE GENERATION

AGED TRIAL BALANCE

CUSTOMER STATEMENTS

ADDRESS LABEL PRINTING

FULL BACKUP PROGRAMS

VARIABLE SERVICE CHARGE RATE

VARIABLE PAGE LENGTH

These are the capacities per data disc. With the DATA-FLEX dual disc system, the programs and data are each stored on a separate disc. This means that multiple data discs may be used with one program disc. In this way you can use the system for more than 500 customers and for more than 5000 transactions per month. The system can also be used to process the data for more than one business.

 ${\sf DATA-FLEX}^{\sf tm}$  is a Trademark of Racing Services, Inc.

Retail Price:

\$300.00

Company Name:

Racing Services, Inc.

Contacts:

Norman Champ

Address:

1555 River Park Drive, #213

Joanne Yamauchi

Telephone:

Sacramento, California 95815

(916) 929-1517

SYSTEM REQUIRE	MENTS			
Computer Model:	HP-83 or HP-85	Peripherals:		
Memory:	Additional 16K required.	HP-IB Interface		
Operating System:	Basic	HP-85/83 ROM Drawer External 80 col. printer		
Other Software:	Printer/Plotter ROM Mass Storage ROM	Dual Disc Drive		
CUSTOMER SUPP	ORT			
Geographic Area Su	pported:			
□ U.S. (all regions) □ East □ South □ Midwest □ West  Support Services Av ⊠ phone-in support ⊠ on-site consulting	Latin America (all)  South Africa  ailable:  Mail-in support On-site systems engineers  Information and Pricing:			
CUSTOMER TRAIN	NING/DOCUMENTATION			
Training Available:		Price:		
Call for in	formation.			
	lable: Complete 64 page Instructi luded with the DATA-FLEX A/R Sy			
Documentation Avai	lable in other languages:			
NUMBER OF INST	ALLATIONS: 2 DATE OF FIRS	ST INSTALLATION: 08/19/81		
ADDITIONAL INFO	DRMATION			
Also Availal	ole: DATA-FLEX Payroll System DATA-FLEX General Ledger Program Demonstration Dis	scs		



I.D. Code: 10049

Application Code: 72.31010

Expiration Date:

Product Name DATA - FLEX

Mainframe(s):

HP-83 or HP-85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DATA-FLEX GENERAL LEDGER. With this system, journal entries can be made daily or as necessary. A complete audit trail of all transactions affecting the Chart of Accounts during the month is provided by the General Ledger Transaction Journal and the Detailed Trial Balance. The Monthly Trial Balance, Balance Sheet, and Profit & Loss Statement are printed at the end of each month, but may also be printed as required. All financial statements are completely user formattable!

FEATURES

CAPACITIES

80 COLUMN REPORTS

UP TO 400 ACCOUNTS

G/L TRANSACTION JOURNAL

UP TO 4300 TRANSACTIONS PER MONTH

MONTHLY TRIAL BALANCE

DETAILED TRIAL BALANCE

FORMATTABLE BALANCE SHEET

FORMATTABLE PROFIT & LOSS

FULL BACKUP PROGRAMS

These are the capacities per data disc. With the DATA-FLEX dual disc system, the programs and data are each stored on a separate disc. This means that multiple data discs may be used with one program disc. In this way you can use the system to process the data for more than one company.

COMPLETE INSTRUCTION MANUAL

FULL TELEPHONE SUPPORT

DATA-FLEX<sup>tm</sup> is a Trademark of Racing Services, Inc.

Retail Price:

\$300.00

Company Name:

Racing Services, Inc.

Contacts:

Norman Champ

Address:

1555 River Park Drive, #213

Sacramento, California 95815

Telephone:

(916) 929-1517

SYSTEM REQUIRE	EMENTS				
Computer Model:	HP-83 or HP-85		Peripherals: HP-IB Interface HP-85/83 ROM Drawer External 80 col. printer Dual Disc Drive		
Memory:	Additional 16K requi	red.			
Operating System:	Basic				
Other Software:	Printer/Plotter ROM Mass Storage ROM				
CUSTOMER SUPP	ORT				
Geographic Area Su	pported:				
☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	<ul> <li>☐ Mexico</li> <li>☐ Latin America (all)</li> <li>☐</li> <li>☐</li> </ul>	Europe (all)			
Support Services Av	⁄ailable: ⊠ mail-in suppor	·t	□ remote	dial-in	
				n modification	
Additional Support	Information and Pricing:				
Call for in	formation.				
CUSTOMER TRAIL	NING/DOCUMENTATION				
Training Available: Call for in:	formation.		Price:		
	Hable: Complete 51 page Luded with the DATA-F			\$25.00	
Documentation Ava None	ilable in other languages:				
NUMBER OF INST	TALLATIONS: 4	DATE OF FIRST	INSTALLATION:	12/14/81	
ADDITIONAL INF	ORMATION				
Also Available: DATA-FLEX Accounts Receivable System DATA-FLEX Payroll System Program Demonstration Discs  * These items are available for immediate shipment!					
		immediate s	snipment!		
RESPONSIBILITIES	SIMIEMENI				





I.D. Code: 10070

Application Code: 72.31011

Expiration Date:

Product Name:

Mainframe(s):

A D S - Inventory

HP 87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This stand-alone version of inventory is designed to give management and purchasing personnel an up-to-the-minute analysis of inventory stock levels, product sales performance and profitability on an item by item basis. Provides the tools to keep inventory levels at a minimum, while simultaneously avoiding lost sales because of "stock outs."

Items may be assigned numbers based on either a supplier's numbers or an internally assigned code.

Physical inventory listing provides worksheet to aid in taking physical inventory. Actual inventory adjustments are easily made with adjustment program.

#### Major Benefits

Extremely easy to understand and simple to operate. Average dealer installation support time per installation - 1 1/2 hours.

Retail Price:

Suggested Price \$485.00

Company Name: ADS Business Software

3016 Franklin Road, S.W.

Address:

Roanoke, VA 24014

Contacts:

Frank Gisiner

Telephone:

(703) 344-6818

Tom Hickerson

SYSTEM REQUIREMENTS				
Computer Model: 87	Peripherals: 80 or 132 print position printer.			
Memory: 64K	5 1/4" dual disk			
Operating System: CP/M	drive.			
Other Software:				
CUSTOMER SUPPORT				
Geographic Area Supported:				
□ Worldwide □ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				
Support Services Available:				
□ phone-in support □ mail-in support □ on-site consulting □ on-site systems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>			
Additional Support Information and Pricing:				
Phone in support for dealers	only!			
CUSTOMER TRAINING/DOCUMENTATION				
Training Available:	Price:			
Documentation Available: User manual including operator instructions, training exercises, sample reports, e	Price:			
Documentation Available in other languages:				
NUMBER OF INSTALLATIONS: 1000 + DATE OF FIRST INSTALLATION: 1978				
ADDITIONAL INFORMATION				
ADS has been designing programs for the first-time program effectively blends the simplicity and funct machine concepts with the ease and convenience of rachine specific market for ADS Software is the small kan pegboard system, or a bookkeeping machine.	tionality of accounting microcomputer disk capabilities.			



I.D. Code: 10070

Application Code: 72.31012

Expiration Date:

Product Name:

Mainframe(s):

A D S - Payroll

HP 87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Simple but logical 3-step payroll - "fill in the blanks", "write the check", - then "print payroll journal".

Allows for multi-state payroll tax calculations, up to six automatic deductions per pay period, provision for operator override of all withholding tax calculations.

Permits more than one check per pay period for each employee for vacation checks, bonus checks, etc.

User accessible tax tables. Quarterly reports and W-2's. Automatic General Ledger integration optional by user.

#### Major Benefits

Extremely easy to understand and simple to operate. Average dealer installation support time per installation - 2 hours.

Retail Price:

Suggested Price \$485.00

Company Name: ADS Business Software, Inc.

3016 Franklin Road, S.W.

Roanoke, VA 24014

\_

Contacts:

Frank Gisiner

Telephone:

Address:

(703) 344-6818

Tom Hickerson

SYSTEM REQUIREMENTS					
Computer Model: 87	Peripherals: 80 or 132 print position printer.				
Memory: 64K	5 1/4" dual disk				
Operating System: CP/M	drive.				
Other Software:					
CUSTOMER SUPPORT					
Geographic Area Supported:					
Support Services Available:					
<ul><li>□ phone-in support</li><li>□ on-site consulting</li><li>□ on-site systems engineers</li></ul>	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>				
Additional Support Information and Pricing:					
Phone in support for dealer	rs only!				
CUSTOMER TRAINING/DOCUMENTATION					
Training Available:	Price:				
Documentation Available: User manual including operatinstructions, training exercises, sample reports					
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 1000 + DATE OF FIRST INSTALLATION: 1978					
ADDITIONAL INFORMATION					
ADS has been designing programs for the first-time user since 1974. Each ADS program effectively blends the simplicity and functionality of accounting machine concepts with the ease and convenience of microcomputer disk capabilities. The specific market for ADS Software is the small business using a manual system, a pegboard system, or a bookkeeping machine.					
RESPONSIBILITIES STATEMENT					



I.D. Code: 10070

Application Code: 72.31013

**Expiration Date:** 

Product Name:

Mainframe(s):

A D S - Accounts Receivable

HP 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

#### Major Features

Very Fast, high volume, yet easy to use Debit/Credit posting program.

Extensive sales analysis, sales tax and miscellaneous charges breakout. Payment posting optionally applies to oldest invoice or selected invoices. Accepts partial payments. Permits recording of miscellaneous cash receipts (i.e., insurance claims, etc.).

System uses open-item method of accounting. All unpaid invoices are kept on file for inquiry and statement preparation. Automatic finance charges may be applied to all or selected accounts.

Aged analysis of accounts reflects balances to 120 days, date and amount of last payment, and finance charges.

Automatic General Ledger integration optional by user.

#### Major Benefits

Extremely easy to understand and simple to operate. Average dealer installation support time per installation - 2 1/2 hours.

Retail Price:

Suggested Price \$485.00

Company Name:

Contacts:

Address:

ADS Business Software 3016 Franklin Road, S.W. Frank Gisiner

Roanoke, VA 24014 (703) 344-6818

Tom Hickerson

Telephone:

SYSTEM REQUIREMENTS			
Computer Model: 87		Peripherals:	80 or 132 print position printer.
Memory: 64K			5 1/4" dual disk
Operating System: CP/M			drive.
Other Software:			
CUSTOMER SUPPORT			
Geographic Area Supported:			
☐ Midwest	merica (all)		Far East (all)
Support Services Available:			
<ul><li>□ phone-in support</li><li>□ on-site consulting</li></ul>		_	remote dial-in program modification
Additional Support Information	and Pricing:		
Pł	none in support for de	ealers only!	
CUSTOMER TRAINING/DOC	UMENTATION		
Training Available:		Pı	rice:
Documentation Available: Use instructions, training			rice:
Documentation Available in oth	er languages:		
NUMBER OF INSTALLATION	S: 1000 + DATE	OF FIRST INSTALLA	TION: 1978
ADDITIONAL INFORMATION			
ADS has been designing program effectively ble machine concepts with to The specific market for a pegboard system, or a	ends the simplicity and the ease and convenient ADS Software is the	d functionality of sce of microcomput small business us	of accounting er disk capabilities.
DESDANSIBILITIES STATEMENT			



I.D. Code: 10070

Application Code: 72.31014

Expiration Date:

Р	r۸	di	uct	N	am	ρ.

Mainframe(s):

A D S - Accounts Payable

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Whether on a cash basis, accrual basis, or a combination of the two, the system provides an efeective means of managing cash requirements. User may alternately select a report which reflects unpaid invoices aged backward in time to show oldest items or forward in time to display future cash needs by any time interval. Open unpaid item worksheet becomes a turnaround document after management has selected and noted invoices for full payment, partial payment, etc.

Valid account number verification of General Ledger distribution accomplished during either vouchering process or check writing process.

Automatic General Ledger posting of both Purchase Journal and Cash Disbursement Journal.

Requires companion General Ledger program.

#### Major Benefits

Extremely easy to understand and simple to operate. Average dealer installation support time per installation - 2 hours.

Retail Price:

Suggested Price \$485.00

Company Name: ADS Business Software, Inc.

Contacts: Frank Gisiner

Address:

3016 Franklin Road, S.W.

Tom Hickerson

Telephone:

(703) 344-6818

Roanoke, VA 24014

SYSTEM REQUIRE	MENTS		
Computer Model:	HP-87		Peripherals: 80 or 132 print
Memory:	64K		position printer. 5∄" dual disk
Operating System:			drive.
Other Software:	CP/M		
CUSTOMER SUPP	ORT		
Geographic Area Su	pported:		
VILS (all regions)	☐ Canada ☐ Mexico ☐ Latin America ( ☐ ☐	(all)	
Support Services Av	ailable:		
☐ phone-in support ☐ on-site consulting		mail-in support on-site systems engineers	remote dial-in program modification
Additional Support I	nformation and Pric	ing:	
Phone	e in support fo	or dealers only!	
CUSTOMER TRAIN	IING/DOCUMENT	ATION	
Training Available:			Price:
		ual including operator rcises, sample reports,	Price:
Documentation Avai	lable in other langu	ages:	
NUMBER OF INST	ALLATIONS: 100	00 + DATE OF FIRST	T INSTALLATION: 1978
ADDITIONAL INFO	DRMATION		
program effer machine conc bilities. T	ctively blends epts with the e he specific man	the simplicity and functions and convenience of	e user since 1974. Each ADS ctionality of accounting microcomputer disk capasthe small business using a g machine.
RESPONSIBILITIES	STATEMENT		



HP USE ONLY

I.D. Code: 10070

Application Code: 72.31015

Expiration Date:

Product Name:

Mainframe(s):

A D S - General Ledger

HP 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Made up of two very distinct phases - General Ledger posting and related reports, and Financial Statements.

Designed to be used in conjuction with other program modules or as an excellent free-standing package for the user who merely wants to "put his books" on his machine.

General Ledger posting may be customized by the user to prepare various journals which would otherwise be a product of a program which was not needed or wanted (Accounts Payable, for example)

An excellent, simplified client write-up program for the small accountant or bookkeeping service with limited needs.

Financial Statements program permits the user 100% latitude in account numbering and report formatting.

Allows for departmental profit analysis and consolidation. Income statement permits a 13 period year with this year/last year comparisons, percentage calculations, and/or budget variances.

All report formatting accomplished thru separate format records. Actual General Ledger accounts are not consumed for "titling," "totaling," etc.

## Major Benefits

Extremely easy to understand and simple to operate. Average dealer installation support time per installation - 3 hours.

Retail Price:

Suggested Price \$485.00

Company Name:

ADS Business Software

Contacts:

Frank Gisiner

Address:

3016 Franklin Road, S.W.

Tom Hickerson

Roanoke, VA 24014

Telephone:

(703) 344-6818

SYSTEM REQUIRE	MENTS			
Computer Model:	HP 87		Peripherals:	80 or 132 print
Memory:	64K			position printer. 5½" dual disk drive.
Operating System:	CP/M			Ja dan disk di ive.
Other Software:				
CUSTOMER SUPPO	DRT			
Geographic Area Sup	pported:			
☐ Worldwide  **Y U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	<ul><li>☐ Mexico</li><li>☐ Latin America (all)</li></ul>			Far East (all)
Support Services Ava	ailable:			
<ul><li>□ phone-in support</li><li>□ on-site consulting</li></ul>	☐ mail-in sup ☐ on-site sys		_	remote dial-in program modification
Additional Support In	nformation and Pricing:			
Phone	in support for dealer	rs only!	1	
CUSTOMER TRAIN	ING/DOCUMENTATION			
Training Available:			Pri	ce:
Documentation Avail instructions,	able: User manual inclu training exercises, s	uding operator sample reports,		ce:
Documentation Avail	able in other languages:	W		
NUMBER OF INST	ALLATIONS: 1000 +	DATE OF FIRST	T INSTALLAT	ION: 1978
program effec machine conce ities. The s	designing programs for tively blends the simp epts with the ease and pecific market for ADS , a pegboard system, o	plicity and fund convenience of S Software is th	ctionality microcomp he small b	of accounting uter disk capabil-

#### RESPONSIBILITIES STATEMENT

#### HP USE ONLY

I.D. Code:

Application Code: 72.32001

Expiration Date:

Product Name: Mainframe(s):

Financial Decisions Application Pac Series 80

#### Software Description:

The Financial Decisions Pac can be used with the Series 80 Computer to evaluate a wide variety of financial alternatives. Included in the pac are program descriptions, user instructions, and example problems. All programs contain HELP sections which provide handy key definition references, and either special GUIDE keys, or a set of program guidelines which will explain unique or potentially difficult concepts in specific sections. The pac also includes a section explaining the basic concepts of cash flow.

There are eight programs in the Financial Decisions Application Pac:

- <u>Compound Interest & Loan Amortization</u>, solves for any of the five standard compound variables and generates loan amortization schedules.
  - Discounted Cash Flow Analysis calculates IRR, NPV and FMRR.
- <u>Depreciation</u> generates annual schedules for straight line, sum-of-the-years'-digits and variable rate declining balance depreciation methods with a graphics option.
- <u>Simple Interest and Interest Conversions</u>, given any three of the four standard interest variables, solves for the fourth.
  - Bonds and Notes computes price or yield for bonds and notes.
- Break-Even Analysis solves for any of the five variables in a break-even analysis, given the other four, with a graphics option.
- Odd Days Interest computes the APR and the payment amounts for single advance regular payment transactions.

With the Financial Decisions Pac, user knowledge of computer programming is unnecessary. The programs are complete, friendly and well documented, allowing the user to concentrate on financial analysis rather than programming.

NOTE: HP-86/87 software offers 80-column report layouts and keyboard option of display/plotter graphics.

SYSTEM REQUIREMENTS	
Mainframe: HP-83/85/86/87	
ROMs:	
Memory:	
Peripherals:	
ADDITIONAL INFORMATION	
Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR IT	 

Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE PROGRAM MATERIAL IS MADE AVAILABLE SOLELY ON AN "AS IS" BASIS, AND THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH THE USER. SHOULD THE PROGRAM MATERIAL PROVE DEFECTIVE, THE USER (AND NOT HP) SHALL BEAR THE ENTIRE COST OF ALL NECESSARY CORRECTIONS AND ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. HP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THE PROGRAM MATERIAL.

## **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 73,21001

**Expiration Date:** 

**Product Name:** Mainframe(s): CALIBRATION - 9826 9826

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Calibration-9826 provides a comprehensive calibration scheduling and control system for gages and test instruments. It permits immediate update or access to critical calibration records. The package is designed for ease of use by the quality assurance department or calibration personnel. Now, management can be sure that gages and instruments remain in calibration thereby reducing the potential for scrap and rework.

The direct availability of calibration records to the responsible user increases overall effectiveness. Users are able to obtain up-to-date reports required by their operation. By maintaining a computerized record of location and description, capital investment in redundant gages and test instruments may be reduced.

#### **FEATURES:**

- Provides scheduling of required calibration dates.
- Maintains complete calibration history.
- Monitors delinquent equipment.
- Searches by age, description, or location.
- Soft-key control of all functions.
- CRT display or hard copy of all reports.
- 8 1/2 x 11 report format.
- No installation required.

#### BENEFITS:

- Provides traceability of calibration history required by major companies.
- Aids in compliance with requirements of MIL-STD-45662.
- Balances calibration work loads.
- Reduces capital investment in redundant gages and test instruments.
- Lowers overall calibration costs for inactive equipment.
- Decreases paperwork, clerical time, and office space.
- Immediate availability of data.
- Reduces transcription errors.
- Eliminates scrap and rework due to delinquent measurement equipment.
- No programming experience required.
- Positive marketing tool to demonstrate quality awareness.

Retail Price:

\$2,500.00

Company Name:

Hansford Data Systems, Inc.

Contacts:

Carl Reynolds Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

(716) 442-7110

SYSTEM REQUIRE	MENTS		
Computer Model:	9826	Peripher	als: 2671G
Memory:	256 KB		
Operating System:	BASIC (ROM OR RAM)		
Other Software:			
CUSTOMER SUPPO	ORT	: -	
Geographic Area Sup	ported:		
<ul> <li>□ Worldwide</li> <li>☑ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	☐ Mexico ☐ Latin America (all) ☐	□ Europe (all) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Support Services Ava	ilable:		
phone-in support     on-site consulting	⊠ mail-in supp ⊠ on-site syste	me engineers	-
Additional Support Ir	nformation and Pricing:		
Custom soft	ware services available	for this product.	
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	Yes		Price: call for info
Documentation Avail	able: Yes		Price: call for info
Documentation Avail	able in other languages: Cu	stom basis	
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRST INSTA	LLATION:
ADDITIONAL INFO	RMATION		
DESDONSIBILITIES S	STATEMENT	<b>4</b> ,	V.

## Software Supplier **Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 73.21002

Expiration Date:

Product Name:

PROCESS ANALYSIS - 9826

Mainframe(s):

9826

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Process Analysis-9826 provides comprehensive data storage, data management, and analytical tools for many statistical quality control applications. The Data Storage module provides permanent data storage on mini-floppy discs. Manual data entry is accomplished rapidly for timely analysis. A variety of updating and reporting capabilities are included for flexible data management and control. Process Analysis-9826 branches into two analytical modules - Control Chart Analysis and Descriptive Statistics. For each module, variable data is accessed from the Data Storage disc. Supplemental part information is retrieved and furnished on each report and graph.

Control Chart Analysis provides a comprehensive set of Shewhart control chart techniques, permitting a wide variety of cost savings. X-bar and Range or Sigma control charts are provided to determine capabilities of machines, methods, and processes. Inherent variation is identified from variation due to assignable causes. Control chart limits are generated automatically from current data or from usersupplied standards. Interactive capabilities facilitate the achievement of statistical process control and the reduction of variability. A uniquely designed normal inference plot reveals the natural tolerance of the process.

Descriptive Statistics provides general data analysis tools. Frequency tables and histograms summarize the data. These are generated automatically or interactively providing insight into the shape of the distribution. A normal probability plot displays percentiles, verifies distribution assumptions, and estimates parameters. With it, outliers are quickly identified and may be eliminated from the data set providing a powerful tool.

#### **FEATURES:**

- Graphical and numerical analysis
- Permanent data storage
- Data management capabilities
- Rapid data entry & retrieval
- X-bar & Range or Sigma control charts
- Normal inference plot
- Basic statistics calculations
   8 1/2 x 11 report format
- Frequency tables/Histograms

- Normal probability plot
- Outlier elimination capabilities
- Automatic axis scaling for graphs
- CRT raster display, raster printout
- On-line HELP
- Soft-key control of all functions
- Hard copy of all reports

Retail Price:

\$ 3,500.00

Company Name:

Hansford Data Systems, Inc.

Contacts:

Carl Reynolds Account Manager

Address:

3055 Brighton-Henrietta Town Line Rd.

Rochester, New York 14623

Telephone:

(716) 442-7110

SYSTEM REQUIRE	MENTS		
Computer Model:	9826	Peripherals:	2671G, 82902M
Memory:	256 KB		
Operating System:	BASIC (ROM or RAM)		
Other Software:	BASIC 1.0 requires binary en	hancements.	
CUSTOMER SUPPO	ORT		
Geographic Area Sup	pported:		
<ul> <li>□ Worldwide</li> <li>☑ U.S. (all regions)</li> <li>□ East</li> <li>□ South</li> <li>□ Midwest</li> <li>□ West</li> </ul>	Mexico		ustralia/N.Z.
Support Services Ava	ailable:		
□ phone-in support     □ on-site consulting	mail-in support      on-site systems eng      on-site sys		mote dial-in ogram modification
Additional Support Ir	nformation and Pricing:		
Custom softwa	are services available.		
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:	Yes	Price	call for info
Documentation Avail	abie: Yes	Price	call for info
Documentation Avail	able in other languages: Custom b	asis.	
NUMBER OF INSTA	ALLATIONS: DATI	OF FIRST INSTALLATIO	N:
ADDITIONAL INFO	PRMATION		
control tool Aids in incr Organizes da and possible Finds capabi and processe Determines of Aids in redu Enables comp best process Forms the he program.	reasing productivity and quality.  ata to indicate sources of trouble e solutions.  ilities of machines, tools, methods, es.  guality levels of process capability.  ucing process variability.  parative studies; selection of  a.  eart of statistical quality control	Maintains part histories inc knowledge of the process. Helps achieve statistical pr Saves time and expense of ha tions. Facilitates capital equipmen Aids in reducing inspection, rework, and scrap. Provides quick, dependable r analysis. Enhancss design of engineeri fications. Detects trends, when and whe gate.	ocess control.  nd calcula-  t selection.  repair,  eal-time  ng speci-
control meth	nods •	No programming experience re	quired.

#### RESPONSIBILITIES STATEMENT

## Software Supplier Product Summary



#### **HP USE ONLY**

I.D. Code:

Application Code: 73.21003

**Expiration Date:** 

Product Name:

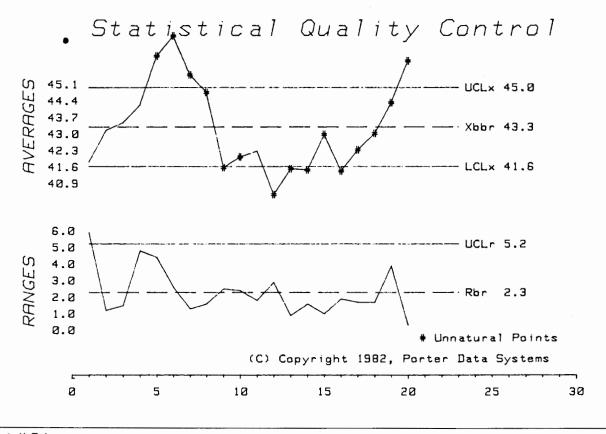
STATISTICAL QUALITY CONTROL (SOC-1)

Mainframe(s):

9845T

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

A manufacturing process quality control tool, this graphics package generates standard quality control charts such as Xbar and R charts that indicate whether an industrial process is 'in control'. The system is designed primarily for the process operator to use requiring only a tape cartridge and access to an MP 3845T. Additional measurements may be added and the desired charts replotted in seconds. This invaluable tool incorporates the methods developed by Dr. W. A. Shewart. It eliminates all the time-consuming hand calculation and plotting and reduces significantly the number of errors usually made in measuring a process and presenting the results.



Retail Price:

\$500.00

Company Name:

Porter Data Systems, Inc.

Contacts:

Address:

470 Buckeye Drive

Colorado Springs, Colorado 80919

Telephone:

(303) 5<del>9</del>9-5548

SYSTEM REQUIREMENTS	
Computer Model: 9845T Memory:	Peripherals:
wemory.	98412A I/O ROM
Operating System: BASIC	93414A Advanced Programming RO74
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
U.S. (all regions)	Europe (all)  Far East (all)
Support Services Available:	
	☐ remote dial-in s engineers ☐ program modification
Additional Support Information and Pricing:	
Available on Request	. •
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: On-Site consulting and tra	ining Price: \$500/day + T/E
Documentation Available: Operator's Manual	Price: Included in basic license
Documentation Available in other languages:	paste ricense
NUMBER OF INSTALLATIONS: 2	DATE OF FIRST INSTALLATION: August 1982
ADDITIONAL INFORMATION	
Updates and revisions will be provided days from purchase date. Damaged or urepaired or replaced at a nominal char	nusable systems may be returned and
This system is currently being modifie and PASCAL.	d for use on the HP 9826/36 in BASIC
responsible for its software and support services. HP is not	supplier for operation on HP equipment. The supplier is solely the manufacturer or co-developer of this software and makes no d, with respect to the supplier, its products or its services.

# Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 74.11001

**Expiration Date:** 

Product Name:

THE PEOPLE PLANNER

Mainframe(s): HP 1000

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

THE PEOPLE PLANNER is a Real Property Maintenance Workorder System first installed for the U.S. Army Facility Engineers. This system, which does not use CPM or PERT methods, schedules multiple craft and multiple shop resources as it plans the completion of multiple-step jobs.

Priorities on each job are controlled easily by assignment of order-sequence on ad hoc basis. Steps may be delayed by outside control or until some earlier step reaches a given percentage of completion. Progress toward completion is dependent on the availability of shops and craft resources and the competition for these resources from other jobs.

By changes on installation, various size limitations can be handled. For example, one installation handles 5000 jobs, 32000 phases, 20 shops, 500 workers, 17 million square feet of real facilities, etc.

The status of any job in the system is available on-line by inquiry. Up to 99 status conditions can be recorded.

Retail Price:

\$ 50,000

Company Name: Data Index, Inc.

Contacts: R. McIntire
Sharon Diveley

Address:

4390 Alpha Road

Jill Marlborough

Telephone:

214-386-3929

SYSTEM REQUIREMENTS	,	
Computer Model: HP 1000	Peripherals:	DISKS
Memory: 128 K Words		TAPES TERMINALS
Operating System: RTE IV A		IBRHINABS
Other Software: IMAGE		
CUSTOMER SUPPORT		
Geographic Area Supported:		
X Worldwide       □ Canada       □ Europe (all)         □ U.S. (all regions)       □ Mexico       □		East (all)
Support Services Available:		
X phone-in supportX mail-in supportX on-site consulting□ on-site systems engineers		note dial-in gram modification
Additional Support Information and Pricing:		
CUSTOMER TRAINING/DOCUMENTATION		
Training Available: yes, 40 hours	Price:	\$3,000
Documentation Available: User's Manual	Price:	included
Documentation Available in other languages: Will translate		
NUMBER OF INSTALLATIONS: 1 DATE OF FIRS	T INSTALLATIO	N: 1981
ADDITIONAL INFORMATION: PEOPLE PLANNER is flex vacations, sick leave, material delays, etc system complete with a reliable mini-comput software available on a turnkey basis.	c. It is a	"modeling"

#### RESPONSIBILITIES STATEMENT

## Software Supplier **Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 75.11001 Expiration Date: 1/1/83

Product Name:

Mainframe(s):

Order Entry with Inventory Control, Billing, & Sales Analysis

HP 1000

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

TBS O/E features: a) On-line entry of orders b) Items may be partially back ordered and partially shipped c) Prices are extended automatically, tax and weight are calculated d) Picking tickets produced for each order e) Prints Daily Order Log by Order # or Product # f) Open Order Analysis Reports printed by Customer # or Product # g) Back Order Analysis Reports produced by Customer # or Product # h) Separate ship-to addresses maintained i) Orders changed or deleted automatically adjust inventory j) CR Memos entered in the same fashion as orders BILLING: a) Invoices selected for printing b) Adjustments to qty ordered and shipped made in Invoice Preparation program c) Invoices and CR Memos interface to A/R d) Prints Invoice Register. INVENTORY CONTROL: a) On-line update of the Product File b) Prints Daily Inventory Activity Register c) The Product File has a 10 character Product #, 3 prices, average cost, QTY on hand, QTY on order, QTY RES, QTY BO, EOQ, ROL, and much more d) Prints Purchase Advice Report e) Prints Price List. SALES ANALYSIS: 5 different reports produced.

Retail Price:

\$2,500

Company Name:

Theta Business System

Contacts: Larry Jones

Steve Rinehart

Address:

1110 Sonora Ave., #106

Glendale, CA 91201

Telephone: (213) 242-7981, 245-0917

SYSTEM REQUIRE	MENTS			
Computer Model:	HP 1000	F	Peripherals: Pr	rinter
Memory: 256KB	(Multi-user)			
Operating System:	RTE			
Other Software:	None			
CUSTOMER SUPPO	ORT			
Geographic Area Su	pported:			
<ul><li>☑ Worldwide</li><li>☐ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	☐ Mexico ☐ Latin America (all) ☐	Europe (all)		East (all)
Support Services Ava	ailable:			
	☑ mail-in suppo □ on-site syster			ote dial-in Iram modification
Additional Support In	nformation and Pricing:			
CUSTOMER TRAIN	IING/DOCUMENTATION			
Training Available:	Installation, Use, Modification	ns	Price:	\$400/day
Documentation Avail	lable: User manuals, print-or	uts	Price:	Included
Documentation Avail	lable in other languages: No			
NUMBER OF INST	ALLATIONS: 8+	DATE OF FIRST	INSTALLATION	: April 1981
RESPONSIBILITIES S				

## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 75.11002 Expiration Date: 9/83

Product Name:

INVENTORY-PURCHASING

Mainframe(s):

HP1000 E, F, & A Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The Inventory-Purchasing System is a complete inventory management system designed for use by wholesale and retail parts distributors which also have service facilities. A unique feature of the system is that it automatically traces items "enroute" and also generates purchase orders automatically to maintain optimal stock levels. The system operates in an on-line environment.

There are four basic operating screens:

- Item Entry and Recall

- Purchase Order Entry and Recall

- Vendor Information

- Transaction Entry

The principal reports and processing aids are:

- Backorders Items backordered to customers

- Bin Labels Prints adhesive bin labels for warehouse

Directory
 End-of-Month
 Directory of vendors
 End-of-Month Processing

Increase Prices
 Increases list prices by a fixed percentage
 Issue
 Prints approved purchase orders for mailing

- Letters Follow-Up letters for unfilled purchase orders

- Open Orders Items ordered from vendors but not received

Proof
 Purchase order proof- or work-sheet
 Purchases
 History of purchases from vendors
 Sales
 Sales report and inventory valuation

- Status Purchase orders' status

- Trail Audit trail of part transfers made - Warehouse Transfers Recommended warehouse transfers

- Work Sheet Inventory condition for counter reference and

planning

- Pick List Warehouse pick list for order filling

Retail Price:

\$3,000 one-time license fee, \$500/year support

Company Name: AIM MANAGEMENT SERVICES, INC.

Contacts: Craig B. Spengler

Address: P.O. Box 350128, Ft. Lauderdale, FL 33335

Telephone: (305) 584-0333

SYSTEM REQUIREMENTS	
Computer Model: HP1000 Models 40, 45, 16, 6, 17 Periphe	rals:
Memory: 512 KB	
Operating System: RTE-IVB, RTE-A.1	
Other Software: IMAGE/1000 (92069)	
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide □ Canada □ Europe (all)   □ U.S. (all regions) □ Mexico □	
Support Services Available:	
<ul><li>☒ phone-in support</li><li>☒ mail-in support</li><li>☒ on-site consulting</li><li>☐ on-site systems engineers</li></ul>	□ remote dial-in     □ program modification
Additional Support Information and Pricing: For more support informat AIM Management Services,	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: One week included in license fee	Price:
Documentation Available: Subsystem Manual	Price: \$ 50 extra copies \$200 w/o license
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 1 DATE OF FIRST INSTA	LLATION: 1978
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT	

## **Software Supplier Product Summary**

**HP USE ONLY** 

I.D. Code:

Application Code: 75.11003

**Expiration Date:** 

Product Name:

ORDER/1000

Mainframe(s):

**HP 1000**, A,E,F & L-Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Interactive Order Entry System which provides for the following features:

- Commission system with manager override, agency, primary/secondary salesman, house.
- Sales Journal and reports
- Inventory Control using "On hand and Available"
- Automatic quantity breaks
- Back order system with priority back order option
- Pick ticket/work order is edited to become invoice
- Aged receivable and receipts entry
- Screen extensions
- Statements or invoice only systems

Retail Price:

\$4,500

Company Name:

Efficient Computing Company

Contacts: Robert G. Hillis

Address:

877 S. Adams,

Birmingham, MI 48011

Telephone: (313) 647-1820

SYSTEM REQUIREMENTS	
Memory: RTE-IVB, RTE-VI - 256 KB  RTE-A.], RTE-XL 128 KB min. Operating System:  RTE-IVB, RTE-VI, RTE-XL, RTE-A.]	Peripherals: At least one: 7905, 7906, 7920, 7925, 7935, 7908, 7911, 7912
Other Software: 92069, 92073 Image	÷
CUSTOMER SUPPORT	
Geographic Area Supported:	
Worldwide	
Support Services Available:	
<ul><li>☑ phone-in support</li><li>☑ mail-in support</li><li>☑ on-site consulting</li><li>☑ on-site systems engineers</li></ul>	⊠ remote dial-in  ☑ program modification
Additional Support Information and Pricing:	
SSS: \$40/month - L-Series, \$65/month E-Series, \$90/month	F-Series
CUSTOMER TRAINING/DOCUMENTATION	
Training Available: 3 days	Price: \$375
Documentation Available: ORDER/1000 Manual	Price: \$50
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: 2 DATE OF FIRST	INSTALLATION: July 1977
ADDITIONAL INFORMATION  RESPONSIBILITIES STATEMENT	





### **HP USE ONLY**

I.D. Code:

Application Code: 76.21001

Expiration Date:

Product Name:

BAI\*PERT

Mainframe(s):

HP 9845 series (excluding model "A")

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

BAI\*PERT is a friendly, interactive, menu-driven project planning, scheduling, and control system requiring no knowledge of computer programming or any programming language--it communicates in English. Utilizing an easy to use predecessor/successor format, it allows a user to build a project "on the fly", explore alternatives, and quickly identify cost effective procedures.

BAI\*PERT produces immediate screen graphics and reports for review and update and superb hard copy graphics and tabulations in final report and presentation ready form. Graphic output includes:

- \* PERT network diagrams with minimized line crossings;
- \* GANTT schedule charts showing float time, percent complete, and today's date;
- \* CALENDARS with scheduled or actual start and end dates of each task appropriately located; and
- \* RESOURCE charts, both cumulative and non-cumulative, for one or more resources in aggregation.

BAI\*PERT can prepare and maintain budget and project expenditures, graphically displaying resource requirements, manpower, materials, cash, etc., as needed. Utilizing complete editor capabilities, actual day-to-day control of project progress can be maintained. Tabular reports may be printed or displayed on the computer's screen providing an assessment of the project's status with regard to today's date. These reports indicate predicted completion dates for tasks which have slipped and flags any task which threatens the timely completion of the project.

Networks may be merged and subdivided, making possible presentations tailored to all levels of management. In addition, one network may be inserted into a selected task of another network, facilitating hierarchical chart construction.

Charts may be produced in any scale, time units are selectable and multi-color charts may be drawn. Networks as large as 1,000 tasks may be developed on 9845 systems with 156k bytes of core. Larger networks are possible with greater memory capacity.

#### Retail Price:

\$6,000 - \$7,750 depending on optional modules purchased

Company Name: B & A, INCORPORATED

225 Santa Monica Blvd.; Santa Monica, CA 90401 (213) 451-1743

200 W. Court Sq.; Huntsville, AL 35801; (205) 539-4175

168 E. South St.; Leesburg, VA 22075 (703)471-7376

Contacts: Ken Barten, President Bruce Thompson, Mgr. W. Coast Richard Hovey, Mgr. E. Coast Richard Smock, Mid-West Ops.

SYSTEM REQUIREMENTS					
Computer Model: HP 9845 (any except model "A")	Peripherals: HP 9885 8½" disk or HP 9895 disk or HP 7906				
Memory: 156k bytes minimum	rigid disk drive and HP plotter single or multi-pen.				
Operating System:					
Other Software:					
CUSTOMER SUPPORT					
Geographic Area Supported:					
□ Worldwide □ Canada □ Europe (all)   X U.S. (all regions) □ Mexico □					
Support Services Available:					
→ phone-in support       → mail-in support         → on-site consulting       □ on-site systems engineers	□ remote dial-in  ➡ program modification				
	Additional Support Information and Pricing: B & A, Inc. provides a 12 month warranty for BAI*PERT. After warranty expiration, B & A offers additional maintenance on a yearly service contract basis.				
CUSTOMER TRAINING/DOCUMENTATION					
Training Available: Yes, at B&A, Santa Monica, CA or at customers site.	Price: Free. if at S.M. facilities of B&A,con-act B&A for on-site.				
Documentation Available: User's Manual, on-the-lap operating guides, in English	Price: 1 copy of manual includ				
Documentation Available in other languages:	ed, additional copies contact B&A.				
NUMBER OF INSTALLATIONS: 20 DATE OF FIRS	ST INSTALLATION: June 1981				
ADDITIONAL INFORMATION					
B&A is a full service management and technical cons systems and software service for most applications systems. BAI*PERT can be interfaced with appropria up and down load data from mainframes as required. BAI*PERT are at our standard billing rates.	on a wide variety of machine ate software modifications to				
DESDONSIBILITIES STATEMENT					



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

76,22001

Mainframe(s) 9826A/9836A, 9845

Program Title

### PROJECT MANAGEMENT

#### **Program Description**

One of the most important phases of any project is the planning and organization of many interrelated activities. What materials are required and when should they be delivered? When should each stage of the project start and finish? What manpower is required?

Network analysis (CPM, PERT, MPM) is the method most often used to plan project management. Besides helping formulate the basic plan, network analysis permits following the project closely, anticipating problem areas, evaluating alternate plans, and achieving the economic and timing objectives of the project.

Network analysis is the complex and time-consuming job ideally suited to the HP 9826A, HP 9836A and HP 9845 and HP's Project Management software. The system has the power and speed to handle extremely complex networks, and it permits updates and modifications as changes occur during the project. The software incorporates these network analysis methods: PERT — Program Evaluation and Review Technique; CPM — Critical Path Method; MPM — Metra Potential Method.

The program is divided into five operational modules, each of which is accessed by one of the Special Function Keys:

- INPUT/UPDATE allows entry of method, job data, connections, holidays, start and end dates, and data updates. List are provided to verify project data.
- CALC performs network calculations and calculates probabilities if required. Calculations are based on one or three
  thime estimates for the network.

• SORT — provides sorts of project data according to 15 available sort sequences.

JOBLIST — produces reports of the calculation results in either time units or calendar days. If three time estimates are
used you have the option of determining optimistic, pessimistic, and probability estimates of project completion.

• GANTT — produces calculation results in GANTT chart format (time unit or calendar dates).

The software has the following features:

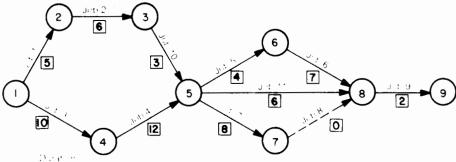
- 1800 activities for CPM and PERT, or 1400 activities for MPM.
- Arbitrary job numbering jobs can be inserted or deleted throughout the network at any time.

128 start points.

- 128 end points and/or milestones.
- · Time units of any duration.
- · Results in time units or calendar dates.
- 2048 freely definable non-working days (holidays, etc.).
- · 30-character descriptor for activities.
- 6-character responsibility code.
- 15 different sort keys to access sorted lists.
- Multiple-stage sorts.
- 7 different selection parameters to output partial lists.
- Probability calculation if three time estimates are used.
- Unattended processing.
- Highlights critical activities

You have several choices for the presentation of the results of network calculations. Not only can vital project information be presented as a tabular report which provides exact dates and times but a GANTT chart output is avilable which gives a clear, comprehensive picture of the critical results. Either format can be represented as time units or specific calendar dates — whichever you prefer. All this flexibility is available with the convenience of the ability to sort the information you need in 15 different ways. You can sort and re-sort and then request only the data you need. Why search through pages of information when the program can give you just what you want at the push of a button?

The program provides several options to allow unattended operation. Once the data is entered and verified, you simply select the data you need and are free to handle your other management problems while the program handles the details of giving your the final results of the network calculations.

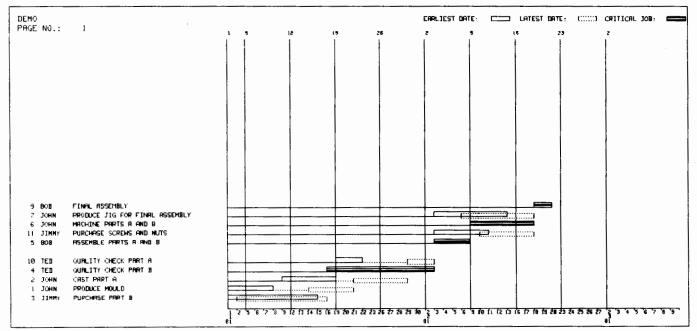


CPM NETWORK

At the start of the project, the planner must identify all "events" and "activities" and draw the basic network.

Project	: DEMO				rage 1
Job lis	s t				
Job-no	Respon	Description	From	То	Duration
1	JOHN	PRODUCE MOULD	1	2	5.0
2	JOHN	CAST PART A	2	3	6.0
3	JIMMY	PURCHASE PART B	1	4	10.0
4	TED	QUALITY CHECK PART B	4	5	12.0
5	BOB	ASSEMBLE PARTS A AND B	5	6	4.0
6	JOHN	MACHINE PARTS A AND B	6	8	7.0
7	JOHN	PRODUCE JIG FOR FINAL ASSEMBLY	5	7	8.0
8		DUMMY ACTIVITY	7	8	0.0
9	BOB	FINAL ASSEMBLY	8	9	2.0
10	TED	QUALITY CHECK PART A	3	5	3.0
11	JIMMY	PURCHASE SCREWS AND NUTS	5	8	6.0

INPUT/UPDATE Module: An easy-to-use conversational format has been used for the entry and updating of project data. Data verification is printed prior to calculation.



GANTT Module: The benefits of graphics are provided by the GANTT chart output which presents all the key results of network analysis in a convenient format. Highlighting of critical activities calls the managers attention to the areas vital to meeting the project deadlines.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B w/printer (Opt. 560) graphics package (Opt. 311, 700) 9826A/9836A

Price: \$500

HP Software Part Number: 09845-11100 (includes manual, program cartridge, overlay) 98817A

Memory Options: 56K bytes r/w memory 98256A

ROMs: Mass Storage ROM, Opt. 313 Opt. 011 or 711

Peripherals: Flexible Disk Drive 9885M An external disc is

recommended on

9826A

\$500

Comments: The program can be run using Opt. 600 (second tape drive) in place of 9885M.

However, this reduces the maximum number of activities which can be processed to

about 700 CPM/PERT or about 550 activities for MPM networks.

Contact your local HP Sales Office for additional information



HP USE ONLY

I.D. Code: 10084

Application Code: 76.31001

Expiration Date:

Р	roc	luct	Na	me.

Mainframe(s):

MILESTONE tm

HP 86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

"Critical path" network analysis program for scheduling manpower, dollars and time to maximize productivity. Interactive project management program that runs under CP/M. MILESTONE can be used to track paper flow, build a computer, check a department's performance or build a bridge. MILESTONE can be used by executives, engineers, managers and small businessmen.

- Product Pert chart in minutes
- \* Find critical tasks that can't be delayed
- \* Investigate tradeoffs between manpower, dollars and time
- \* Give plans to others using a printed project schedule
- \* Change details and immediately see results on screen
- Balance time, manpower and costs

 ${\it MILESTONE}^{\it tm}$  is a trademark of Organic Software.

Retail Price:

\$295.00

HP Part Number: 00087-16009

Company Name: Digital Marketing Corporation

Contacts: Robert W. Baker

Address:

2670 Cherry Lane

Walnut Creek, CA 94596

Telephone:

(415) 938-2880

SYSTEM REQUIREMENTS						
Computer Model:	HP 86, 87 with CP/M	Card.	Peripherals:			
Memory:	Requires 56K RAM					
Operating System:	CP/M					
Other Software:						
CUSTOMER SUPPO	ORT					
Geographic Area Sup	pported:					
U.S. (all regions)	☐ Mexico ☐ Latin America (all) ☐					
x phone-in support ∴ on-site consulting	<b>x</b> mail-in si □ on-site s	upport ystems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>			
_	nformation and Pricing:					
CUSTOMER TRAIN	ING/DOCUMENTATION					
Training Available:			Price:			
Documentation Avail	able:		Price:			
90 page users manual, 6 examples on disk.  Documentation Available in other languages:						
NUMBER OF INST	ALLATIONS:	DATE OF FIRS	T INSTALLATION:			
ADDITIONAL INFO	PRMATION					
RESPONSIBILITIES S	STATEMENT					

## Software Supplier Product Summary

**HP USE ONLY** 

I.D. Code:

Application Code: 77.11001

Expiration Date:

Product Name:

IMAGE INTERFACE

Mainframe(s):

HP1000 E, F, & A Series Processors

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Image Interface is a FORTRAN based software package that enhances the features available with Hewlett-Packard's IMAGE/1000 data base management subsystem. Image Interface is a programmatic interface to IMAGE/1000 and provides the following capabilities:

- Elimination of code generated to protect the integrity of the data base contents in applications that support multi-user data base access.
- Improved data base access time for applications that support multi-user data base access.
- Data entry (record) level data locking that allows programs to hold data base information in a static state with little or no impact on the other programs executing on the system.
- A single copy of the root file is maintained so that each user is provided with the most up-to-date information about the contents of data base.
- A program debug trace of data base accesses.
- Increased partition space for programs using IMAGE/1000 data bases.
- Reduction in the recovery problems associated with system failures.

Image Interface provides user callable subroutines that parallel the standing IMAGE/1000 subroutines. Through the use of Image Interface, an application designer can ensure that multi-user access to the data base by different programs that are competing for the same data is properly designed; without a list of complicated data base access procedures and without imposing end-user program execution restrictions.

One copy of Image Interface is capable of supporting 4 data bases and 8 Image Interface copies can execute concurrently on the same system. Each Image Interface copy can support an unlimited number of user programs. Identification of which Image Interface copy supports which data base is totally transparent to the user program.

Retail Price:

\$1,800.00 as of 2/1/82

Company Name: INDUSTRIAL COMPUTER CORPORATION

Contacts: Michael E. Wells

Address:

6810 Roswell Road, Suite 1-D

Frank B. Wingate William E. Massaker

Atlanta, GA 30328

Telephone:

(404) 396-9395

SYSTEM REQUIREMEN	ITS					
Computer Model: HP10	000 E, F, or A Series	S Perip	pherals:			
Memory:						
Operating System: RTE-	IVB, 6VM, RTE-A.1					
Other Software: IMAG	SE/1000					
CUSTOMER SUPPORT			·			
Geographic Area Supporte	ed:					
☐ South ☐	Mexico _atin America (all)					
	⊠ mail-in suppo ⊠ on-site syste		□x remote dial-in     □ program modification			
Additional Support Information and Pricing: Right to Reproduce - \$600.00						
CUSTOMER TRAINING	DOCUMENTATION					
Training Available: S	ystem & Programmer L	.evel	Price: \$500.00 for 2 days for 3 students			
Documentation Available:	Price:					
Manager Manuals Included  Documentation Available in other languages:						
NUMBER OF INSTALLATIONS: 15 DATE OF FIRST INSTALLATION: 1/1/81						
ADDITIONAL INFORMA						

Printed in USA 11/81 5953-0646



## Referenced Software Supplier Product Summary



#### **HP USE ONLY**

I.D. Code:

Application Code: 77.11002

Expiration Date:

Product Name:

**ENTRY/1000** 

Mainframe(s):

**HP 1000**, A,E,F & L-Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Direct screen to IMAGE Data-Base operation which offers the following features:

- Provides extremely rapid method for construction of display terminal entry, edit, display, delete, and print forms.
- Multiple Data-Base, multiple set capability
- Compile phase allows reduction of execution overhead while maintaining data-base flexibility.
- Provides unified approach for system operation.
- "Screen display always identical to internal data" design philosophy reduces operator training times.
- Built-in security system allows the control of form access.
- HELP structure facilitates operator training and acceptance.

Retail Price:

\$2,500

Company Name:

**Efficient Computing Company** 

Contacts:

Robert G. Hillis

Address:

877 S. Adams,

Birmingham, MI 48011

Telephone:

(313) 647-1820

SYSTEM REQUIREMENTS					
Computer Model: HP 1000, Models 4),45,60,65,6,16,17 Peripherals: At least one: 7905, 7906, 7920, 7925, 7905, 7908, 7911, 7912  RTE-A.1, RTE-XL 128 KB Operating System: 7905, 7908, 7911, 7912					
	VB, RTE-VI, RTEXL, RTI	E-A.1			
	, 92073 IMAGE				
CUSTOMER SUPPO				_	
Geographic Area Sup  Worldwide	ported: Canada	☐ Europe (all)	□ For Fost (all)		
X U.S. (all regions)			□ Far East (all)		
⊟ East ⊟ South	Latin America (all)				
Midwest					
West	[]	☐ South Africa	☐ Australia/N.Z.		
Support Services Ava					
x phone in support on-site consulting	斌 mail-in suļ 遼 on-site sys	pport stems engineers			
Additional Support In	formation and Pricing:				
SSS: \$20/mor	nth				
CUSTOMER TRAIN	ING/DOCUMENTATION				
Training Available:	2 d <b>a</b> ys		Price: \$250		
Documentation Availa	able: ENTRY/1000 Mar	nual	Price: \$45		
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 6 DATE OF FIRST INSTALLATION: July, 1977					
ADDITIONAL INFO	RMATION				
RESPONSIBILITIES S	TATEMENT				



**HP USE ONLY** 

I.D. Code:

Application Code: 77.11003

**Expiration Date:** 

Product Name:

Mainframe(s):

DATA-BASE/1000

**HP 1000**, A,E,F & L-Seriles

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

A multiple Data-Base/User data-base communication program which offers the following features:

- Allows any number of programs to access (open) data-base (Removes the IMAGE limit of 7)
- Resolves multiple access contention with minimum Data-Base locking time, thus speeding up multiple terminal data-base systems.
- Reduces program partition requirements, saving memory.
- Provides centralized data-base access.
- Data-Base closing ability even if opening program is abnormally aborted improving Data-Base reliability.
- Key item update capability.

Retail Price:

\$500

Company Name:

Efficient Computing Co.

Contacts: Robert G. Hillis

Address:

877 S. Adams

Birmingham, MI 48011

Telephone: (313) 647-1820

SYSTEM REQUIREMENTS					
Computer Model: HP 1000, Models 40,45,60,65,6,16,17 Peripherals: At least one: 7905,7906,7920,7925,7935,7908,7911,7912					
Operating System:  RTE-IVB, RTE-VI, RTE-XL, RTE-A.]					
Other Software:					
92069, 92073 IMAGE					
CUSTOMER SUPPORT					
Geographic Area Supported:					
Worldwide □ Canada □ Europe (all)   ☑ U.S. (all regions) □ Mexico □					
Support Services Available:					
☑ phone-in support       ☒ mail-in support         ☒ on-site consulting       ☒ on-site systems engineers	x remote dial-in x program modification				
Additional Support Information and Pricing:					
SSS: \$5/month					
CUSTOMER TRAINING/DOCUMENTATION					
Training Available: 3 days	Price: \$300.00				
Documentation Available: DATA-BASE/1000 Manual	Price: \$15				
Documentation Available in other languages:					
NUMBER OF INSTALLATIONS: 6 DATE OF FIRS	ST INSTALLATION: July, 1977				
ADDITIONAL INFORMATION					
RESPONSIBILITIES STATEMENT					



**HP USE ONLY** 

I.D. Code:

Application Code: 77.11004

**Expiration Date:** 

Product Name:

Mainframe(s):

REPORT/1000

**HP 1000**, A,E,F & L-Series

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

Data-Base Report Writer which allows for rapid and easy report preparation and offers the following features:

- Set linking capability allows reports to contain items from multiple sets.
- Multiple Data-Base capability.
- High speed optimized shell insertion sort provides rapid sorting time (approx. 300 times faster than QUERY)
- Sub-item capability.
- Optimized serial search provides serial search times approximately 20 times faster than QUERY.
- Calculation capability: add, subtrace, multiply, and devide.
- Conditional branching, editing, etc.
- Update capability

Retail Price:

\$1,500

Company Name:

**Efficient Computing Company** 

Contacts: Robert G. Hillis

Address:

877 S. Adams,

Birmingham, MI 48011

Telephone:

(313) 647-1820

SYSTEM REQUIREMENTS					
Computer Model: HP 1000, Models 40,45,60,65,6,16,17 Peripherals: At least one:					
Memory: RTE-IVB, RTF	E-VI <b>- 256 K</b> B		7905, 7906, 7920, 7935, 7908, 7912,	,	
RTE-A.], RTE-XL 128 Departing System:	KB min.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
l .	E-VI, RTE-XL, RTE-	A.1			
92069, 92073	IMAGE				
CUSTOMER SUPPORT					
Geographic Area Supported:					
☐ Worldwide ☐ Cana ☑ U.S. (all regions) ☐ Mexic		□ Europe (all)		t (all)	
☐ East ☐ Latin	America (all)				
☐ Midwest ☐					
☐ West ☐		☐ South Africa	☐ Australi	a/N.Z.	
Support Services Available:					
☑ phone-in support ☑ on-site consulting	⊠ mail-in suppo	ort ms engineers	┳ remote ⋤ program	dial-in n modification	
Additional Support Information	n and Pricing:				
SSS: \$10/month					
CUSTOMER TRAINING/DO	CUMENTATION				
Training Available: 1 day			Price: \$	125	
Documentation Available:	REPORT/1000 Man	ual	Price: \$	25	
Documentation Available in other languages:					
NUMBER OF INSTALLATIO	<b>NS</b> : 6	DATE OF FIRST	INSTALLATION:	July, 1977	
ADDITIONAL INFORMATION					
				× .	
RESPONSIBILITIES STATEMEN	T				

## Software Supplier **Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 77.11005 **Expiration Date:** 

1/1/83

Product Name:

Mainframe(s):

**PFAS** 

HP 1000 M/E/F/L

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

An ISAM for RTE on the HP 1000 machines, PFAS is a set of routines contained in two libraries which allow programmers to access data records by a primary and any number of secondary keys.

PFAS functions are called to create an index file, open already created index files, and perform all I/O to and from the files. Records may be read randomly by key, sequentially and reverse sequentially by key and by partial key. Records can be added either sequentially or randomly by key.

PFAS uses a B+ tree to organize the index and seemly a small number of disk accesses are needed to read a record. PFAS also buffers all I/O in a user specified area to further reduce the amount of time needed to read or write records.

PFAS is an alternative to IMAGE for people who do not need the features of IMAGE such as DS/1000 interface, Query etc. Since PFAS does not have the features of IMAGE, it also does not have the overhead and so can write and retrieve records more quickly in an interactive environment.

Retail Price:

\$995

Company Name:

C. J. Wigglesworth Software

Contacts:

Craig Davidson

Janice Cornforth

Address:

1917A Edinburg Ave.

Cardiff, CA 92007

Telephone:

(714) 436-1455

SYSTEM REQUIRE	MENTS				
Computer Model:	HP 1000 M/E/F/L	-	Peripherals: Disc		
Memory: 80K					
Operating System:	RTE-IVB, RTE-XL				
Other Software:	Pascal library				
CUSTOMER SUPPO	ORT				
Geographic Area Sur	oported:				
☑ Worldwide ☐ U.S. (all regions) ☐ East ☐ South ☐ Midwest ☐ West	☐ Latin America (all)				
Support Services Ava					
	⊠ mail-in : □ on-site :		□ remote dial-ir □ program mod		
Additional Support In	nformation and Pricing:				
	date Newsletter. Phone-in rt – \$10/month	n support - \$20/mon	th		
CUSTOMER TRAIN	IING/DOCUMENTATION				
Training Available:	No		Price:		
Documentation Avail	lable: Yes		Price: \$25		
Documentation Available in other languages: No					
NUMBER OF INSTALLATIONS: 70+ DATE OF FIRST INSTALLATION: July 1980/Oct 1981					
ADDITIONAL INFO	DRMATION				
70+ UCSD & CP/M installations, first installed 7-80 Several groups at one company using both the RTE-IVB & RTE-XL versions on 5 different machines since October 1981.					
RESPONSIBILITIES	STATEMENT				



Application Code:

77.12001

Mainframe(s) HP 1000 E, F & L-Series

Program Title

IMAGE/1000 Data Base Management Systems

#### **Program Description**

IMAGE/1000 is a general-purpose data base management software system designed for use in HP 1000 Computer Systems managed by HP's RTE-IVB/L/XL operating systems. Two different versions are offered. HP 92069A IMAGE/1000 with QUERY can be used under the RTE-IVB or RTE-XL system. The 92073A IMAGE/1000 without QUERY is usable under RTE-L as well as RTE-XL and RTE-IVB. Both versions of IMAGE/1000 provide a complete software package for consolidating large quantities of data into a single, interrelated data base that can be shared by many different people for a wide variety of purposes. In combination with Distributed Systems/1000 software, IMAGE/1000 services remote data base access requests.

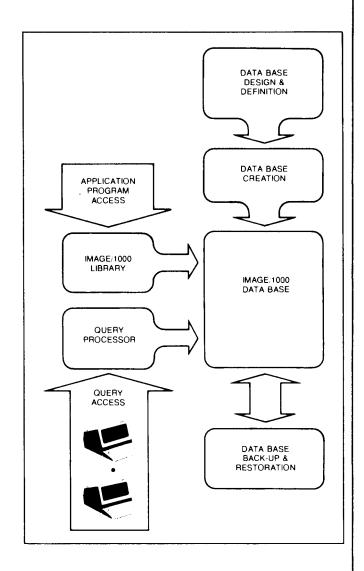
#### **Features**

- IMAGE/1000 data bases can be restructured without needing to change your application programs
- Host language subroutines callable from Pascal, FORTRAN, BASIC, and Assembly language
- Minimum data redundancy through file consolidation
- Protection against unauthorized access at data base and data item level
- Data base capacity up to 960M bytes under RTE-IVB, 200M bytes under RTE-L or RTE-XL
- Up to 16 search keys per data set for fast data access
- Sorted chains that order entries by a secondary item value
- Utilities that build, maintain, restructure, and backup the data base
- RTE-IVB IMAGE/1000 data base can be accessed remotely with DS/1000 or DS/1000-IV
- QUERY facility that enables the non-programmer to easily retrieve, alter, and report information using English-like commands

# Reasons for using an IMAGE/1000 data base

#### Data independence

The description of the data is independent of the programs that access the data base. IMAGE 1000 maintains all the pointers necessary to logically relate the data. Programmers can access the data base without concern of how the data is physically structured. It is possible to reorganize the data without requiring a change to any programs. Application programs can be modified without a need to change the data structure or the physical data storage devices.



#### Multiple usage of data

Common data may be shared between the different groups that use the data base. Use of the same data by different programs reduces data redundancy, since its not necessary to create and maintain data files for each application program. Physical storage requirements are reduced and only one set of data needs to be maintained. The problem of how to simultaneously update independent data files that contain redundant information is also easily eliminated by using an IMAGE/1000 data base.

### Data security

Data can be security code protected from unauthorized access with IMAGE/1000. Each data item in the data base also has an associated privacy level that limits access to authorized mers. With IMAGE/1000, you can specify a different privacy level for read and write operations on each data item. This is useful when you would like to allow someone to read but not change a particular data item.

#### Data access

The data base can be accessed by either a user written application program or by the QUERY language facility included with 92069A IMAGE/1000. Application programs can be written in Pascal, FORTRAN, or Assembly language. The 92069A IMAGE/1000 also provides for access from BASIC programs. The data base can be accessed with a host-language using one of four methods: serial, or direct as with a file management system; calculated (hashed); or chained using a key item. The data base also allows users to have chained entries alphabetically or numerically ordered by a secondary item value. QUERY is a program for non-programmers to easily locate, report and update data values in the data base. QUERY is excellent for ad hoc inquiry to the data base either interactively or in a batch mode.

#### Remote data base access

IMAGE/1000 combined with DS/1000-IV allows the user to write programs that run on a local HP 1000 Computer System to access remote IMAGE/1000 data bases at RTE-IVB based systems\*. QUERY can also be scheduled locally to execute at a remote data base. This means that an IMAGE data base can be easily shared with other HP 1000s in the Distributed System Network.

### Proven performance

IMAGE/1000 is a member of Hewlett-Packard's IMAGE Data Base Management Software family. IMAGE/3000, selected for Datapro's Honor Roll, IMAGE/300, IMAGE/250, and IMAGE/45 are also members of HP's IMAGE family. IMAGE/1000 has been successfully used by over 1000 HP 1000 Computer System customers since 1976. IMAGE/1000 is based on RTE-IVB, RTE-XL, and RTE-L, the newest and most powerful members of the disc-based, real-time executive operating system family. RTE systems have been put to work in thousands of installations throughout the world since 1968.

Minimum system requirements: Same as 92068A RTE-IVB or 92071A RTE-XL System for 92069A or 92073A used in RTE-IVB or RTE-XL, same as 92070A RTE-L system with 64k bytes of memory for 92073A used in RTE-L.

Approximate memory usage (bytes): IMAGE/1000 programs usually reside in large background partitions. In addition to the memory used by the various IMAGE/1000 programs listed overleaf, space may be required in the partition for the data base buffers and data control blocks. The data base buffers (0.3k bytes to 18k bytes depending on size and complexity of the user's data base) include a memory copy of the root file and the storage areas necessary for data set manipulation. The data control blocks (total of 0.6k to 9k bytes) are buffers used to communicate between the file buffers and the disc.

IMAGE Program		Program Size (Bytes)	Uses Data Base Buffers?	Uses Data Control Blocks?
Schema Processor	DBDS	20k	Yes	No
QUERY		32k*	Yes	Yes
Utilities:	DBBLD DBSTR DBRST DBULD DBLOD DBSPA RECOV DBUP	26k 26k 26k 26k 28k 22k 12k* 28k	Yes No No Yes Yes Yes No Yes	Yes No No Yes Yes Yes No Yes
Access Control Program:	DBCOP	6k	No	No

<sup>\*</sup>Add 2k bytes for support of execution from a remote DS/1000 node.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 5 (2142A), 9 (2145A), 10 (2146A), 40 (2176C/D), 45 (2177C/D)

Price: \$3,500 (IMAGE/1000 with QUERY), \$2,500 (IMAGE/1000 without QUERY)

HP Software Part Number: 92069A (IMAGE/1000 with QUERY), 92073A (IMAGE/1000 without QUERY)

Memory Options: See memory requirements in "Approximate Memory Usage" discussion above.

Peripherals:

Comments:

Contact your local HP Sales Office for additional information

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

77,42001

Mainframe(s)
HP 9000 Models 20,30&40

Program Title

IMAGE/9000 Data Base Management System

### **Program Description**

For data base management, the HP 9000 supports the same IMAGE Data Base Management package that has become popular with the HP3000, HP1000, HP 250 and HP 9845 computer families. IMAGE implements networked and hierarchical data structures. It consists of two levels of data objects and uses a path-oriented or chained approach to data retrieval. The first level is comprised of master data sets which define and store a search or key item to access data in the master data set or a detail data set. Detail data sets are the second level of objects and are used strictly to store data.

Currently, the HP 9000 offers three data base management products: HP 97053A, which runs on the BASIC Language System and offers IMAGE with QUERY/9000 application software; HP 97073A, a single-user product which runs on HP-UX and offers only the IMAGE library; and HP 97083A, a multi-user version of HP 97083A. The data bases generated by all three products are compatible with one another.

QUERY/9000 is a BASIC software package that puts a friendly, interactive interface between the user and the data base. It is suitable for the computer non-sophisticate or a user who wants to access a data base without having to write a special program to do so.

#### **IMAGE Features**

- IMAGE data bases can be restructured without changing the corresponding application program.
- With the HP-UX Operating System, IMAGE subroutines can be called from FORTRAN 77, HP Pascal
  or "C" Languages.
- Protection against unauthorized access at the data base and data set level.
- Sorted chains that order entries by a secondary item value.

IMAGE/9000 includes utilities to create, initialize and purge data sets. QUERY/9000 includes additional utilities to define and backup data bases as well as recovery routines for corrupted data bases. With the HP 97053A product for the BASIC Language, a utility is provided to transport HP 9845 data bases to and from the HP 9000.

### **Specifications**

#### **Data Bases**

Data Sets/Data Base 63 Max. number of volumes 20

Max. data base size Limited only by media.

**Data Sets** 

Number of entries/Data Set  $2^{31}-1$  constrained only by physical volume. Note: Data sets cannot

span volumes.

Detailed data sets/master key 31

Keys/detailed data set 31

**Data Items** 

Items/data base 1023 Items/data entry 1023

**Item Types** 

I2 2 byte integer I4 4 byte integer

R4 4 byte floating point numberR8 8 byte floating point number

Xnn nn byte character string C2 Code (enumerated type)

### Access Methods

Serial - A sequential progression forward or backward through a data set.

Direct – Immediate access to any user specified record number.

Calculated – IMAGE supports a hashing algorithm that allows a record number to be calculated directly from the key value item, rather than through search.

Chained – A progression that uses linked lists to step forward or backward through a data set.

### **QUERY/9000 Functions**

Designing a data base

QUERY will lead the user step-by-step via a set of prompts through the procedure of defining and creating a data base.

Updating a data base

This is a quick and convenient way to add new entries, or delete or modify existing entries of a data base. With this tool, range-checking is always performed.

Searching for selected information

QUERY has some powerful searching and selecting capabilities that are helpful for retrieving data from a single data set or a combination of multiple data sets. Selection criteria include all the standard numerical operators plus partial string matching (WITH, STARTING WITH, WITH FIRST NAME, IS, IS NOT, and null values). Multi-layered searches (ie. search for X, within X, search for Y, within X Y, search for Z) are also supported. For searching across data sets, these tools can be invaluable.

QUERY/9000 also supports a facility for showing the data base structure in a graphical form, the ability to create and use data entry forms and an interface to user subprograms.

#### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9000 Model 20, 30 & 40

**Price:** BASIC IMAGE/QUERY = \$3025. ("A" prod.), \$1515. ("R & M" prod.)

HP-UX single-user IMAGE = \$2020. ("A"), \$1010. ("R & M") HP-UX multi-user IMAGE = \$5045. ("A"), \$2520. ("R & M")

HP Software Part Number: HP 97053A/R/M IMAGE/9000 and QUERY/9000 for Basic system

HP 97073A/R/M IMAGE/9000 for HP-UX single-user system HP 97083A/R/M IMAGE/9000 for HP-UX multi-user system

Memory Requirements:

Peripherals:

Comments:

Contact your local HP Sales Office for additional information

**HP USE ONLY** 

I.D. Code:

Application Code:

79.11001

Expiration Date:

Product Name:

Mainframe(s):

MED/1000

**HP 1000**, A,E,F & L-Series

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

MED/1000, The Physicians Management System, is specifically designed for the Professional Medical Practice. A MED/1000 System can uniquely provide for both the scientific and business needs of the practice of medicine and offers the following features:

- Electrical Data (Analog/Digital) from laboratory testing equipment can be recorded and analyzed making on-line data acquisition a reality. Medical diagnostic programs are available.
- The problems involving the business aspect of the medical practice are solved including billings, insurance forms, receivables and collection of fees.
- One MED/1000 Computer System can support multiple practices. MED/1000 Systems are designed to facilitate group utilization.



Retail Price:

F-Series: \$35,000; E-Series: \$25,000; L-Series: \$15,000; A-Series: \$20,000

Company Name:

Efficient Computing Company

Contacts: Robert G. Hillis

Address:

877 S. Adams

Birmingham, MI 48011

Telephone: (313) 647-1820

SYSTEM REQUIREMENTS				
Computer Model: HP 100	<b>0,</b> Models 40,45,6	0,65,6,16,17	Peripherals: A 7905, 7906, 792	
Memory: RTE-IVB, RTE-VI - 258 KB 7935				0, 7925, 1, 7912
RTE-A.], RTE-XL 128 K Operating System:	KB Minimum			,
	-VI, RTE-XL, RTE-A	1.1		
92069, 92073 I	MAGE			
CUSTOMER SUPPORT				
Geographic Area Supported:				
☐ Worldwide ☐ Canad		☐ Europe (all)		
☑ U.S. (all regions) ☐ Mexic☐ East ☐ Latin.				
☐ South ☐				
☐ Midwest				
☐ West ☐		☐ South Africa	☐ Aust	ralia/N.Z.
Support Services Available:				
☑ phone-in support ☑ on-site consulting		ort ms engineers		te dial-in ram modification
Additional Support Information	and Pricing:			
	/month			
· /	/month			
F-Series SSS: \$125	/month			
CUSTOMER TRAINING/DOC	CUMENTATION			
▼raining Available: MED/10 MED/10	000 System Manager	<ul><li>5 days</li><li>2 days</li></ul>	Price:	\$400 \$250
	MED/1000 System MED/1000 User Mar		Price:	\$65 \$35
Documentation Available in oth	her languages:			,
**Training included in softw	vare pricing			
NUMBER OF INSTALLATION	NS: 2	DATE OF FIRS	T INSTALLATION:	June 1978
ADDITIONAL INFORMATIO	N			
				,
DECRONCIPII ITIES STATES	•			
RESPONSIBILITIES STATEMENT This software was developed by		re supplier for opera	ation on HP equipmen	nt. The supplier is solely
responsible for its software and				

endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21001

Expiration Date:

Product Name:

W O R D W I S E Word Processor

Mainframe(s):

9836 9826 9816

9845B

9845C

#### PRODUCT DESCRIPTION:

W O R D W I S E is a high performance full screen word processor designed for use by authors. It takes the hassle out of writing, freeing you to be creative. It features continuous display of the text in its final form, and is very easy to learn to use. Many keys have the same functions that they do with the operating system editor. There is no mass storage access during editing, allowing no-wait performance. Safety features make it almost impossible to loose any of your text accidentally. The unsecured program is in BASIC, permitting customization by the user. Response to user requests is quite rapid due to careful optimization of the BASIC code. The text segment active for editing at any one time is limited to 32766 characters (about 8 pages). Longer texts can be worked on in chapters or similar divisions (or use WORDWISE 2).

### W O R D W I S E CAPABILITY SUMMARY

TEXT ENTRY, UNDERLINING: Just type as normal, word wrap occurs automatically when a line is full. Control codes can be entered. Underline where you please. CURSOR MOVEMENT: The cursor may be moved up, down, left, right, to the start or the end of the text, to the paragraph before or after, to the line you specify by line number, to the next occurrence of a string, or to a TAB position. ALIGNMENT: Variable indent on left and right margins. DECIMAL TAB aligns numbers. INSERTIONS: Insert any text, a required new line character, a line, a space for major insertions without using INS CHR, or spaces to the next TAB position. DELETIONS: Delete a character, a word, a line, a sentence, to the end of the line, a paragraph, or excess spaces. RECALL typed immediately after any delete or clear key, will restore the text to what it was before that key was pressed. CENTERING: Center the line in which the cursor is located. SINGLE STROKE WORD OR PHRASE ENTRY: 10 Dictionary Keys (UDK's) can each store a string of up to 160 characters for single key stroke entry. The first part of each definition is displayed to prompt you. Definitions may be edited. SEARCH AND REPLACE: Search text for a string and replace each or selected occurrences with a newly specified string. Capitalization handled properly. EXCHANGE, MOVE and COPY: Characters, words, sentences, and paragraphs may be exchanged. Any block of text may be moved or copied to a new location. SAVING AND RETRIEVING: The current text, dictionary and tab settings may be saved on, and retrieved or appended from a minimum length mass storage file. PRINTING: Print with or without right hand margin justification on any available printer. You are not limited to any specific type of printer. Special characters cause a temporarily halt in printing or a required new page. RECOVERY: Restart the program with the text intact after any user mistake.

Retail Price:

\$195 Well worth it even if you only use it for an occasional report.

Company Name: L. W. James and Associates 1525 East County Road 58

Contacts:

Address:

Ft. Collins, CO 80524

Dr. Lawrence W. James

Telephone:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIR	EMENTS	S		
Computer Model:	9836	9826 9816	9845B 9845C	Peripherals: High quality external printer useful, but not
Memory:	170	K bytes	187 K bytes	required.
Operating System:	BASI	IC		
Other Software:				
CUSTOMER SUPP	PORT			
Geographic Area Si	upported	:		
<ul><li>Worldwide</li><li>□ U.S. (all regions)</li><li>□ East</li><li>□ South</li><li>□ Midwest</li><li>□ West</li></ul>	□ <b>Lat</b> □ □			
Support Services A	vailable:			
	t ig	□ mail-in □ on-site	support systems engineers	<ul><li>☐ remote dial-in</li><li>☑ program modification</li></ul>
Additional Support	Informat	tion and Pricing:		
CUSTOMER TRAI	NING/D	OCUMENTATION		
Training Available:				Price:
	truction separa	ately for \$10.	reference summar	Price: ry sheet supplied with software
NUMBER OF INS	TALLAT	IONS:	DATE OF FIRS	ST INSTALLATION: 3/81
I .	ator wh	nich will trans	slate HP 9845 Tex vailable for \$70.	kt Management files to
		-		part of The Automated Office - s also listed in this catalog.
ı				man Factors Engineering ril 1982 issue of BYTE
WOR	DWIS	S E text file	s are compatible	with WORDWISE 2 text
RESPONSIBILITIES	STATEM	ENT		

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21002

**Expiration Date:** 

Product Name:

The Automated Office, Pac 1: Word Processing and Mailing List Mainframe(s):

9836 9826 9816 9845B 9845C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

This software package contains WORDWISE (see previous page) and features a mailing list coupled to a custom text editor specifically designed to write and The user types the name of the person to whom he is edit correspondence. writing. If the name and address are in the data base, then an external printer types the envelope, while the user types and edits the body of the letter. The inside address, heading, and salutation of the letter are automatically If the name and address is not on the list, then the user types the supplied. address and it is added to the list if requested, as well as being used for the current letter. Additional programs supplied allow maintenance and printing of the mailing list, typing of labels for a bulk mailing from the mailing list (partial list may be selected by user defined category codes), and typing of "personalized" letters from the mailing list. The text processors have a full range of features, particularly stressing no use of mass storage access during editing (allowing no-wait performance without the need for a hard disk) and preservation of the text during operator mistakes. All possible deletions may be instantly recovered. The category code system is quite flexible, and allows selection from your mailing list data base of those meeting or not meeting combinations of category codes. You define the categories yourself according to your needs.

All programs are written entirely in BASIC, permitting easy customization by the user if he is an experienced BASIC programmer. In spite of no assembly language code, response to user requests is quite rapid due to careful optimization of the BASIC code. The text appears in its final form on the screen at all times during editing. The text segment active at any one time is limited to 32766 characters (about 8 pages). The mailing list data base features flexible category codes for sorts, variable length records, and the ability to handle both home and business addresses and phone #'s. It is also limited to 32766 characters, or about 425 client names and addresses.

This software is useful for the majority of word processing and mailing list applications encountered by small businesses. The linking of the two applications and the ease of use of the software makes for a considerable time savings in written correspondence.

This software product summary sheet was typed by WORDWISE.

Retail Price:

\$395 with full instructions.

Company Name: L. W. James and Associates

Contacts:

Address:

1525 East County Road 58 Ft. Collins, CO 80524

Dr. Lawrence W. James

Telephone:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIREM	ENTS		
Computer Model: 98	36 9826 <b>9816</b>	9845B 9845C	Peripherals: External Printer.
Memory: 170	K Bytes	For 187 K bytes	9845: Automatic dating of letters requires I-O ROM and
Operating System: B	ASIC		Real Time Clock.
Other Software:			
CUSTOMER SUPPOR	RT		
Geographic Area Suppo	orted:		
<ul><li>✓ Worldwide</li><li>☐ U.S. (all regions)</li></ul>	Canada  Mexico Latin America (all)	🗆	
Support Services Availa			_
□ phone-in support     □ on-site consulting	□ mail-ir □ on-site	n support e systems engineers	□ remote dial-in □ program modification
Additional Support Info	ormation and Pricing:		
CUSTOMER TRAININ	IG/DOCUMENTATION	1	
Training Available:			Price:
Documentation Availab English instru- or available se Documentation Availab	ction manual plus		Price: y sheet supplied with software
NUMBER OF INSTAL	LATIONS:	DATE OF FIRS	T INSTALLATION: 3/81
ADDITIONAL INFOR	MATION		
		data sheet on the of the word proces	previous page of this catalog ssor capabilities.
DECROMON TITLE OF	ATEMENT		

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21003

**Expiration Date:** 

Product Name: Word Processor with Integral Spelling Checker Mainframe(s):

wise nr

9836 9826 9816

> 9845B 9845C

### PRODUCT DESCRIPTION:

WORDWISE 2 is a high performance full screen word processor with an integral 50,000 word dictionary. It features continuous display of the text in its final form, a spelling checker and corrector, and an active text length limited only by the amount of memory available. It is easy to learn to use, as many keys have the same function that they do with the operating system editor. There is no mass storage access during editing, allowing wait free performance. Multiple safety features make it almost impossible to accidentally loose any of your text. W O R D W I S E 2 meets almost all of the Human Factors Engineering criteria discussed in the April 1982 issue of BYTE magazine.

WORDWISE 2 has all of the features of WORDWISE (listed two pages earlier in this catalog), plus the additional features listed below.

#### WORDWISE 2 ADDITIONAL CAPABILITY SUMMARY

CURRENT WORD SPELLING CHECK: If you have just typed a word and are not sure of its spelling, just push the SPELL? key and you will be reassured if it is in the spelling dictionary. If not, the computer will search for alternatives which will be used (1 word each) to label the user definable keys. If one of these is correct, just push the corresponding key and it will be substituted for your misspelled word.

COMPLETE TEXT SPELLING CHECK: Your text is checked from beginning to end for spellings in agreement with the computer's dictionary. If a word is not in the dictionary, your text is shown with the misspelled word circled and the cursor located at the word. You may edit the word to its correct spelling, accept the word as correct for this text, add the word to the dictionary, or accept one of the computer's suggested spellings as described above. If you once accept the spelling of a word within a given text, it will be accepted as correct throughout the rest of the text, even if you do not add it to the dictionary. The dictionary does not use suffix, prefix, or plural routines, but stores each legal word separately (in a data compressed format), so that it cannot be confused the way some spelling checkers are. The dictionary as supplied has 50,000 commonly used English words in it. After a short period of time in which it learns the special technical vocabulary specific to your work (it has room for up to 10,000 additional words), you will have very few false misspellings indicated.

LONG TEXTS: The length of the text segment active for editing at any one time is limited only by the amount of RAM memory available.

Retail Price:

\$495

\$150 discount for earlier W O R D W I S E purchasers.

Company Name:  $L.\ W.\ James\ and\ Associates$ 

Contacts:

Address:

1525 East County Road 58 Ft. Collins, CO 80524

Dr. Lawrence W. James

Telephone:

(303) 484-5296

9-5 Weekdays (MST)

SYSTEM REQUIREME	ENTS		
Computer Model: 98.	36 9826 <b>9</b> 816	9845B 9845C	Peripherals: External printer
Memory: 300 K byte	es for minimum sys	tem which perform	s most functions.
550 K byte Operating System:	es for full capabi	lities.	
BASIC BASIC	ASIC		
CUSTOMER SUPPOR	T		
Geographic Area Suppo	orted:		
	☐ Canada ☐ Mexico	☐ Europe (all)	
☐ U.S. (all regions) ☐ ☐ East ☐	Latin America (all)		
□ South		_ 0	
☐ Midwest ☐ West			
	·		
Support Services Availa			
	☐ mail-in s ☐ on-site s		□ remote dial-in ☑ program modification
Additional Support Info	ormation and Pricing:		
A Surficial Support fills	g.		
CUSTOMER TRAININ	IG/DOCUMENTATION		
Training Available:			Price:
Documentation Availab	le:		Price:
English instru	ction manual plus	reference summary	sheet supplied with software
or available s Documentation Availab	eparately for \$10. De in other languages:		sheet supplied with software
	J <b>J</b>		
NUMBER OF INSTAL	LATIONS:	DATE OF FIRST	r INSTALLATION: 5/82
ADDITIONAL INFOR	MATION		
WORDW	ISE 2 text fi	les are compatibl	e with WORDWISE text
1	tor which will tra	nslate H.P. 9845B	Text Management Pac files to
WORDWISE		is available for	
WORDW			rol and escape codes into the inter has such as overstrike,
			mented in a way that will work
on all printers	. WORDWIS	E 2 is writte	n in BASIC and is supplied on
ı	_	_	(C) or 5 1/4 inch floppy disks
(9836,9826), pe	rmitting customiza	ation by the user	if desired.
RESPONSIBILITIES STA	ATEMENT		

### **HP USE ONLY**

I.D. Code:

Application Code: 79.21004

**Expiration Date:** 

Product Name:

MASTER WORD PROCESSOR

Mainframe(s):

9845B/C 9836

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

The MASTER WORD PROCESSOR is a full screen cursor driven word processing program with special features for the preparation of scientific, engineering, and business reports and manuals as well as routine correspondence. The program is controlled through straightforward command menus and can be used after a few minutes introduction. Sophisticated text formatting and printing capabilities are available to the advanced user without confusing the beginner.

\*Features: Random access page editing allows direct access to any page of a document without scrolling through previous pages, a useful feature for large documents. Document size is limited only by the size of mass storage. The program does not require continual mass storage access and operates effectively with as little as a single tape or disk drive.

Paragraph margins, line spacing and word wraparound are represented on the screen; the text display is fully updated as changes are made.

Most keys function as they do in the operating system. Special function keys for text formatting are defined in a display at the bottom of the screen.

\*More features: Automatic word wraparound within paragraphs with user specifiable silent hyphenation; margins and line spacing can differ from paragraph to paragraph. Auto line or paragraph centering; paragraph offset; auto right justification.

Auto page numbering and user-specifiable top- and bottom title lines (both optional). Paragraph widow feature controls (or prevents) breaking of paragraphs between pages; forced new page and unbreakable text blocks control pagination, which is otherwise automatic. Top justification suppresses the printing of blank lines at the tops of pages.

Text insertion keys insert user defined phrases or multiple paragraphs into the text. Move or copy text within a document, or copy text from another document. Table column operations: move, copy, align. Search and replace.

\*Print enhancements supported include underscore, shadow, double strike, superand subscripts, and proportional spacing (when consistent with printer type); these make it easy to compose simple or complex equations such as

$$F = ma$$
 or  $x = \frac{-b + (b^2 - 4ac)^{1/2}}{-b}$ 

\*\*This document was prepared entirely with the MASTER WORD PROCESSOR and the Xerox 1730 (HP2601) printer.

Retail Price:

\$475 (program cartridge or disk and full documentation)

Company Name:

**University Software Associates** 

Contacts:

Address:

R.F.D. #1, Box 6 Fitchville, CT 06334

Telephone:

203-889-5641

SYSTEM REQUIREM	MENTS				
Computer Model:	9845B/C (187 <sup>+</sup> K)	Periphera	ls:		
Memory:		Supports 9845 internal printer, HPIB and RS-232 serial interfacing.			
Operating System:	9836: Basic 2.0	and no zoz conar me	orruenig.		
Other Software: When orde	ering, specify mainfram	e, memory, and printer	and interface types.		
CUSTOMER SUPPO	RT				
Geographic Area Sup	ported:				
☐ U.S. (all regions)	□ Latin America (all)		☐ Far East (all) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		
Support Services Ava	ilable:				
☐ phone-in support☐ on-site consulting	□ mail-in_sur □ on-site sys	oport stems engineers	<ul><li>□ remote dial-in</li><li>□ program modification</li></ul>		
Additional Support In	formation and Pricing:				
CUSTOMER TRAIN	NG/DOCUMENTATION				
Training Available:  A 70 <sup>+</sup> page operating manual supplied with the program includes step-by-step  Documentation Available: introduction, examples, and detailed Price: reference information.					
Documentation Availa	able in other languages:				
NUMBER OF INSTA	ALLATIONS:	DATE OF FIRST INSTAL	LATION:		
Extensive IO ERROR TRAPPING makes this program virtually foolproof. Users may, for example, turn off noisy disk drives during editing sessions; the program will issue prompts when it needs access to a missing device or medium. The file management system prevents loss of data through mass storage medium overflow, and also codes					
each medium to prevent accidental switches during operations. The program does not require dedicated mass storage media.  USER PRIVACY is ensured through a password system which limits access to files.					
*** Available	January 1983: PASCAI	Master Test Processor	for 9836 ***		
DECOUNCIBILITIES S	TATEMENT				

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21006

**Expiration Date:** 

Product Name:

Mainframe(s):

PROTRASTAR

9845 A/B/C 9826/9836 \*

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PROTRASTAR

Advanced Text, Word Processor

#### Features:

- 1. Immediate use with minimal (5 min.) orientation as a simple command electronic typewriter using a selected small set of commands.
- Advanced capability includes:
  - \* Over 60 commands (from keyboard or in text).
  - \* Quick, easy tab, center, justification (R, L, or both...proportional).
  - \* Variable page lengths, flexible headers, footers, page numbering, automatic paging.
  - \* Keyed searches.
  - \* Master and slave texts: Two texts manipulated by the program.
  - \* Automatic name insertion.
  - \* Customized form letters produced to mailing lists.
  - \* Alphabetizes.
  - \* Inserts from other documents in files.
  - \* Self instructing from the CRT screen.
  - \* Italic graphics output.
  - \* Highly resisant to losing text or files.
  - \* Cryptographic features for storing text securely.
  - \* Drives high-quality external printers.
  - \* Reference file reading, printing processing without disturbing texts.
  - \* Designed for heavy-duty office use.
  - \* Designed for heavy-duty engineering documentation, reports.
  - \* Complete and convenient text manipulation
    - (1) on entry and/or (2) after entry and/or (3) by in-text editing symbols.
  - \* Quick generation of tables.
  - \* Very convenient editing, numerous printout modes.
- 3\* Heavy-duty word processing for 9826/9836 See ADDITIONAL INFORMATION section.

Retail Price:

\$500.00 plus tax, shipping. Media extra. Disks or tapes available.

\$100.00 plus tax, shipping for additional copies, media extra

Company Name: PROTRACOA

Contacts: David Kleitman

Address:

1134 Aster Ave., Suite K Sunnyvale, CA 94086

Telephone:

(415) 948-6611

SYSTEM REQUI	REMENTS				
Computer Model:	9845 A/B/C	Peri	pherals: Printer		
Memory:	Software versions ava	ilable for all optio	ns		
Operating System	:				
Other Software:					
CUSTOMER SUF	PPORT				
☐ U.S. (all regions☐ East☐ South☐ Midwest☐ West	☐ Canada s) ☐ Mexico ☐ Latin America (all) ☐	_			
Support Services		support	☐ remote dial-in		
☑ on-site consult	ing □ on-site	systems engineers	X program modification		
Additional Suppor	rt Information and Pricing:				
Willing to e	stablish agency agreem	ments outside U.S.			
CUSTOMER TRA	AINING/DOCUMENTATION				
Training Available	:		Price:		
Documentation A	vailable: Manual include	ed	Price:		
Documentation A	vailable in other languages:	No			
NUMBER OF IN	STALLATIONS: 3	DATE OF FIRST IN	STALLATION: 1981		
ADDITIONAL IN	IFORMATION				
Heavy Duty W	ord Processing for 982	26/9836:			
Available now - Limited (Level I) capability (One text onlyENTER, MANIPULATE, JUSTIFY, STORE, FETCH, PRINT, etc.). Perfectly adequate for routine word processing. Very fast learning of the instruction set, very easy to use and manipulate text.					
Available Su		oilities as 9845 PROT ngineering or office,	TRASTAR (Dual text, heavy- , ease of use).		
RESPONSIBILITIE		software supplier for operation	on HP equipment. The supplier is solely		

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21007

Expiration Date:

Product Name:

Mainframe(s):

MINIPRO:6

9836,26,16

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### MINIPRO:6

Low cost, simplified word processor for letter, document, report and general applications. Very adequate for most applications although it omits advanced features, some convenience facilities and the very large command set of the protrastar heavy duty, dual text maximum capability system.

Design objective was simplicity, low cost, minimum learning time yet retaining the ability to produce required texts.

Sold with instructions and the same auxil. Spelling checker program that is used with the full function protrastar and protrastar:6 heavy duty systems (included in price).

Retail Price:

\$250

Company Name:

Protracoa

Contacts:

D. Kleitman

Address:

1134 K Aster Ave. Sunnyvale, CA 94086 12327 Stonebrook DR. Los Altos Hills, CA 94022

Telephone: (415)-948-6611

SYSTEM REQUIREMENTS	
Computer Model: 9836, 25, 16	Peripherals: Any printer
Memory: 64K or up	
Operating System: Basic	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
☐ Worldwide ☐ Canada ☐ Europe (all) ☐ U.S. (all regions) ☐ Maying	
□ U.S. (all regions)       □ Mexico       □         □ East       □ Latin America (all)       □         □ South       □       □	
☐ Midwest         ☐         ☐           ☐ West         ☐         ☐ South Africa	
Support Services Available:	
☐ phone-in support ☐ mail-in support ☐ mail-in support	☐ remote dial-in
□ on-site consulting □ on-site systems engineers	
Only in Bay area California Additional Support Information and Pricing:	
Additional Support Information and Friends	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available: ::	Price: (Included)
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: (New) DATE OF FIRST	ST INSTALLATION: (1382)
ADDITIONAL INFORMATION	
RESPONSIBILITIES STATEMENT	

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21008

**Expiration Date:** 

Product Name:

Mainframe(s):

PROTRASTAR:6

9836, 26, 16

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### TEXT/WORD PROCESSOR...HEAVY DUTY:

"Protrastar:6" for HP 9836, 9826, 9816 It is an adaptation of the SS45 Protrastar full capability Text/Word processor system.

It features both simplicity in initial use with its quick learning command set and then the subsequent full use of its large command set for convenience and features comparable to or beyond those of dedicated commercial wordprocessor systems.

It is designed for engineering, office, manual writing and general use. See Protrastar for the 9845 listing for other information of data on request. An auxil. Spelling checker/dictionary program is included along with manual.

Retail Price:

\$500

Company Name:

Protracoa

Contacts: D. Kleitman

Los Altos Hills, CA

12387 Stonebrook Dr.

Address:

1134 K Aster Ave. Sunnyvale, CA 94086

94022

Telephone:

(415) 948-5511

SYSTEM REQUIREMENTS	
Computer Model: 9836, 26, 16	Peripherals: Any printer
Memory: 256K+	
Operating System: Basic	
Other Software:	
CUSTOMER SUPPORT	
Geographic Area Supported:	
✓ Worldwide       □ Canada       □ Europe (all)         ✓ U.S. (all regions)       □ Mexico       □	
Support Services Available:	
★ phone-in support ★ mail-in support ★ on-site consulting Bay area California only Additional Support Information and Pricing:	□ remote dial-in 以 program modification
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available: //anua1	Price: (Included)
Documentation Available in other languages:	
NUMBER OF INSTALLATIONS: to 9836, 26, 18 PATE OF FIRS	T INSTALLATION: (1982)
ADDITIONAL INFORMATION	

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21009

**Expiration Date:** 

Product Name:

# LISTER

Mainframe(s):

HP 9835/9845 HP 9826/9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

LISTER is a text formatter and listing program used with the IEM Program Development Systems on the Hewlett-Packard 9835 and 9845 Desktop Computers and the HP Pascal Language System on the HP 9826 and 9836 Desktop Computers.

Pagination control, table of contents preparation and flexible formatting are major features.

### LISTER FEATURES

- BOXING-Text can be boxed automatically by using short commands before and after the area to be emphasized. Vital information can quickly and easily be set apart using this feature.
- CONDITIONAL FORM FEED-This feature can be used to ensure that text is not broken across page boundaries. By typing a simple command before a paragraph, the number of lines are automatically checked. If there isn't enough space left on the page to complete the paragraph. it is started on the following page.
- DOUBLE SPACING-Toggling the on/off controls for double spacing can save you the effort and storage space required to manually insert blank lines for double spacing.
- SENDING ESCAPE CHARACTERS—The user can send special escape sequences to the printer, commanding it to perform the special functions available with the printer. For example, text can be compressed or expanded for a totally different look.
- UNCONDITIONAL FORM FEED-Pages can be terminated and new pages created with the counter automatically incremented by one. This feature can be used, for example, to provide chapter consistency by making every chapter begin on an odd page. This feature provides both even and odd options.
- PAGE NUMBER PREFIX-Page numbers can be prefixed by characters to designate specific chapters. For example, if the user sets the prefix for chapter four as "IV", the string "IV" will appear before every page number after the position of the command.
- PAUSE AFTER A FORM FEED—There are pausing controls designed for those who have special paper needs-such as loose single sheets-during the printing of a file. With this feature, printing can be done on high-quality paper without the added expense of typesetting and camera work.

- UNCONDITIONAL SPACING "LINE FEEDS" -- Lines can be left blank, allowing space for additional figures or diagrams that cannot be prepared by the text editor. Several line feeds can be accomplished with one command.
- TRAILER DISPLAY-Labels can be placed on the bottom of pages for quick reference. This feature can be activated or deactivated using a short command.
- TABLE OF CONTENTS—Page numbers that correspond to the text can be automatically assigned using this feature. Markers inserted throughout the text are used to create a complete table of contents.
- MULTIPLE FILE LISTINGS-Several files can be listed in sequence. This feature allows the user to break the text into chapters, subchapters and sections where each resides in a separate file.

### PRODUCT SPECIFICATIONS

- SOFTWARE REQUIREMENTS: This product can only be used with either PDS-35 or PDS-45 operating systems (IEM products) or the HP Pascal Language System (from HP for 9826 and 9836 Desktops).
- FOR HARDWARE REQUIREMENTS: refer to PDS data sheet or to the appropriate HP data sheets on their Pascal Language System. For further information on the PDS-35 and PDS-45 operating systems, please contact IEM.

#### PRODUCT COMPONENTS

- DOCUMENTATION: "LISTER: A TEXT FORMATTER AND LISTER" A short and straightforward presentation telling you all that is needed to use the LISTER effectively.
- FLOPPY: One 8" floppy disk containing the program is provided when ordering for either the HP 9835 or 9845 Desktops. This disk is usable on either the PDS-35 and PDS-45 systems. When ordering for either the HP 9826 or 9836, one 51/4" floppy disk containing the program is provided. This disk is compatible with the HP Pascal Language System

Retail Price:

US \$300.00

Company Name:

International Electronic Machinery, Inc.

Contacts:

Address:

P.O. Box 1818 Fort Collins, CO 80522

Phone (303) 482-9005 Telephone:

TWX 910-930-9445

SYSTEM REQUIR	EMENTS				
Computer Model:	HP 9835/9845 or HP 9826/9830				
Memory:	See Operating System requirement	ents.			
Operating System:	PDS 35 or PDS 45 for 9835/984	5.			
Other Software:	HP Pascal Language System for	9826/36.			
	See Operating System requirement	ents.			
CUSTOMER SUPI	PORT	•			
Geographic Area S	upported:				
<ul><li>☐ Worldwide</li><li>■ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>	□ Latin America (all) □ □ □ □	pe (all)			
Support Services A	vailable:				
<ul><li>phone-in suppor</li><li>on-site consultir</li></ul>		☐ remote dial-in program modification			
Additional Support	Information and Pricing:				
	See additions	al Information below.			
CUSTOMER TRAI	NING/DOCUMENTATION				
Training Available:	Not required but will provide	e upon request. Price:			
Documentation Ava	ailable: YES	Price:			
Documentation Ava	ailable in other languages: NO				
NUMBER OF INS	TALLATIONS: 5 DATE	OF FIRST INSTALLATION: July 1, 1982			
ADDITIONAL INFORMATION ORDERING INFORMATION					
SUPPORT SERVICES  PRODUCT # PRODUCT DESCRIPTION  97030IE LISTER for use with PDS-45 sys-					
es or program u customer. After	0-day warranty, during which any bug fix- pdates will be sent automatically to the 90 days, a program update may be pur-	tems on the HP 9835 and 9845 Desktops  97031IE LISTER for use with HP Pascal Language System on the HP 9826 and 9836 Desktops			
	whenever a new update becomes avail- e covers the cost of materials and produc-	The LISTER may be ordered directly from:			
		International Electronic Machinery, Inc. P.O. Box 1818 Fort Collins, CO 80522 Phone (303) 482-9005 TWX 910-930-9445			

### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21010

**Expiration Date:** 

Product Name:

STENCIL

Mainframe(s):

HP 9845B/C & 9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

STENCIL is similiar in operation to DIAGRAPH. Text is entered in modules via a menu and can thereafter be repositioned using the graphics cursor keys. The plotter may also be used as a digitizer to place a block of text on an existing chart.

# STENCIL

IS A VERSATILE TEXT COMPOSITION PROGRAM PROVIDING UNLIMITED COM-BINATIONS OF SIZE AND SPACING OF CHARACTERS. THE PROGRAM IS IDEAL FOR PREPARATION OF MATERIAL FOR VISUAL PRESENTATION SUCH AS DIS-PLAY BROCHURES, FLIP-CHARTS, AND OVERHEAD TRANSPARENCIES. TYPES OF LETTERING INCLUDE:

STICK

BOLD-FACED

OPEN BLOCK lower case

SOLID BLOCK

ITAL ICS

ITALICIZED TEXT MAY BE PRODUCED IN 8 DIFFERENT DEGREES OF SLANT.

### FINANCIAL HIGHLIGHTS

	1981	1980	Change
Net eales	\$ 842.6	\$731.6	+15%
Orders received	\$1. B41. 4	\$822. 3	+27%
Unfilled orders	<b>6</b> 857. 8	\$459. Ø	+43%
Net earnings	<b>67.</b> 1	\$ 49.8	+35%
Primary earnings per common share	\$ 4, 83	\$ 3.05	+32%
Fully diluted earnings per common share	\$ 3.72	\$ 2.77	+34%
Dividende per common share	\$ 1.85	\$ .725	+45%
Total borrowings	<b>\$</b> 197. 6	\$185. 3	+ 1%
Stockholders' equity	\$ 341.5	\$288. 3	+18%
Return on average total copital			
(before interest and after taxes)	15. 5%	13.1%	+181
Return on overage etockholder's equity	21. 3%	21. 3%	+14%

(Dollar amounts in millians except per share data)

The size and spacing of the text may be specified in inches or if omitted. the Auto-Size feature of STENCIL will scale the text to the boundaries of the module. As the boundaries of each module are adjusted, the size of the text is changed accordingly.

STENCIL provides for Italics, Bold lettering, Block outline and filled and stick lettering. Spacing between lines of text and between text characters is user controlled.

Retail Price:

\$350

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts:

Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREM	IENTS				
Computer Model:	HP 9845B/C	§ 9836		Peripherals:	7470, 9872, 7580
Memory:	187K (45)	256K (Basic Rom) 512K (Basic Ram)			Plotters. RGB monitor (9836 RGB
Operating System:	BASIC 2.0	)12K (1	basic kam)		interphase req.)
Other Software:					
CUSTOMER SUPPO	RT				
Geographic Area Supp	ported:				
<ul><li>☑ Worldwide</li><li>☐ U.S. (all regions)</li><li>☐ East</li><li>☐ South</li><li>☐ Midwest</li><li>☐ West</li></ul>			. 0		ustralia/N.Z.
Support Services Avai	lable:				
□ phone-in support     □ on-site consulting		mail-in s on-site s	upport ystems engineers		mote dial-in ogram modification
Additional Support Int Annual Progr and enhancem	formation and Pri ram Maintenar nents availab	nce & St	upport Services	including pr	ogram updates
CUSTOMER TRAINI	NG/DOCUMEN	TATION			
Training Available:	On-site train	ning		Price	: \$350/day + expenses.
Documentation Availa	ble: Trainin	ng & Rei	ference manual	Price	: 1 copy included additional copy
Documentation Availa	ible in other lang	uages: N	10		<b>\$15.</b>
NUMBER OF INSTA	LLATIONS: see	e below	DATE OF FIRS	ST INSTALLATIO	ON: see below
ADDITIONAL INFO	RMATION	•	-		
products sol products for since July 1	ely for Hewl the HP 2647A 981.	ett-Pac /F and H	s developed and kard workstation IP 125 have been : pabilities and f	ns. CSC grap installed at o	hics software over 250 sites
RESPONSIBILITIES ST	TATEMENT				

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21011

**Expiration Date:** 





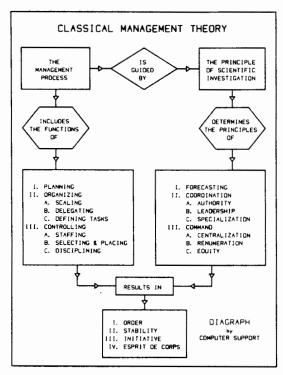
Mainframe(s):

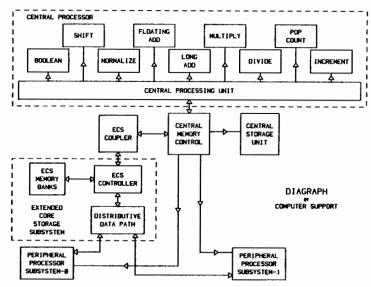
HP 9845B/C & 9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

DIAGRAPH operates in an interactive mode by which the user controls the placement, size and color of symbols. lines and text to produce Organization Charts, Flow Diagrams Presentation Aids.

DIAGRAPH





Connection of the symbols and the drawing of lines is controlled by the graphics cursor. Primary secondary functions (move, draw, etc.) are displayed with prompt messages on the screen to lead the user through the preparation of the diagram. The diagram can be stored as a file and easily retrieved for modification.

symbol Multiple libraries, advanced design options are available. Applications also include, Data Processing flow charts, equipment office and room layouts, management and production control diagrams.

Retail Price:

\$450 - \$950

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts:

Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661**-**8960

### SYSTEM REQUIREMENTS Peripherals: Computer Model: HP 9845B/C & 9836 7470, 9872, 7580 Plotters. RGB Memory: 187K (45) 256K (Basic Rom) monitor (9836 RGB 512K (Basic Ram) interphase req.) Operating System: BASIC 2.0 Other Software: **CUSTOMER SUPPORT** Geographic Area Supported: ₩orldwide Canada ☐ Europe (all) ☐ Far East (all) ☐ U.S. (all regions) ☐ Mexico O .\_\_\_\_ ☐ East ☐ Latin America (all) □ South ☐ Midwest ☐ Australia/N.Z. ☐ West ☐ South Africa Support Services Available: ☐ remote dial-in X phone in support □ on-site systems engineers □ program modification in on-site consulting Additional Support Information and Pricing: Annual Program Maintenance & Support Services including program updates and enhancements available. **CUSTOMER TRAINING/DOCUMENTATION** On-site training \$350/day +Price: Training Available: expenses. Training & Reference manual Price: 1 copy included Documentation Available: additional copy \$15. Documentation Available in other languages: NO DATE OF FIRST INSTALLATION: see below NUMBER OF INSTALLATIONS: see below ADDITIONAL INFORMATION Computer Support Corporation has developed and licenses graphics software products solely for Hewlett-Packard workstations. CSC graphics software products for the HP 2647A/F and HP 125 have been installed at over 250 sites since July 1981. A detailed description of the capabilities and features of each product is available upon request. RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21012

**Expiration Date:** 

Product Name:

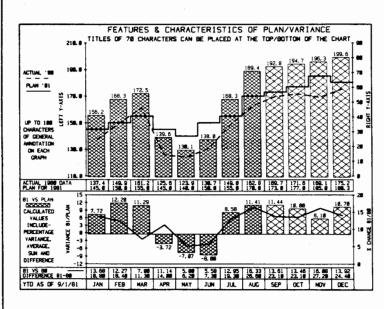
PLAN/VARIANCE

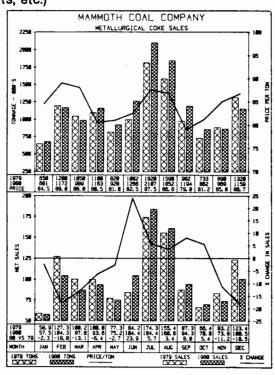
Mainframe(s):

HP 9845B/C & 9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

PLAN/VARIANCE is the first of a series of programs designed for the presentation of Financial/Accounting data. Typically, current values may be contrasted against historical or estimated data. The end product is a pictorial representation of the performance companies, divisions or products relative to one another or measured against planned objectives standards.





The program combines linear and bar chart features and produces one or two graphs on a page. The two graphs may represent independent groups of data or the user can interrelate the charts using the calculation capabilities of the program. The calculated values may be plotted or printed in tabular form as specified by the user.

Retail Price:

\$450

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts: Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREMENTS						
Computer Model:	HP 9845B/C &	9836		Peripherals:	7470, 9872, 7580 Plotters. RGB	
Memory:	187K (45)	256K (Bas 512K (Bas			monitor (9836 RGB	
Operating System:	BASIC 2.0	512K (Bas	ic Ram)		interphase req.)	
Other Software:						
			· · · · · · · · · · · · · · · · · · ·			
CUSTOMER SUPPO	RT					
Geographic Area Supp	ported:					
Worldwide     U.S. (all regions)     East     South     Midwest     West			Europe (all)		ar East (all)            ustralia/N.Z.	
Support Services Avai	ilable:					
phone-in support     on-site consulting		mail-in supp on-site syst	oort ems engineers		emote dial-in rogram modification	
Additional Support Information and Pricing: Annual Program Maintenance & Support Services including program updates and enhancements available.						
CUSTOMER TRAINI	NG/DOCUMENT	TATION				
Training Available: On-site training Price: \$350/day + expenses.						
Documentation Available: Training & Reference manual Price: 1 copy included additional copy						
Documentation Available in other languages: NO						
NUMBER OF INSTALLATIONS: see below DATE OF FIRST INSTALLATION: see below						
ADDITIONAL INFO	RMATION					
Computer Support Corporation has developed and licenses graphics software products solely for Hewlett-Packard workstations. CSC graphics software products for the HP 2647A/F and HP 125 have been installed at over 250 sites since July 1981.						
A detailed description of the capabilities and features of each product is available upon request.						
RESPONSIBILITIES S	TATEMENT					

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21013

**Expiration Date:** 

Product Name:

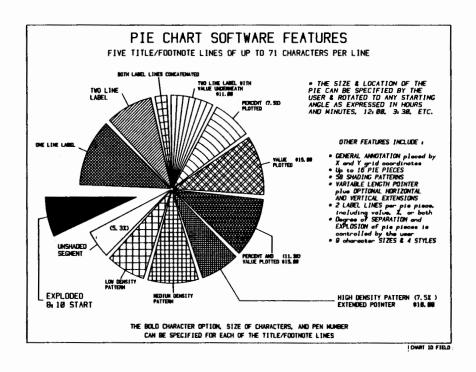
CSC/PIE

Mainframe(s):

HP 9845B/C & 9836

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CSC/PIE is a menu driven program that gives the user precise control over the size, placement and organization of a pie chart. The program calculates the locaton of the center and the size of the pie based upon data read from the menu. However, the user can override the automatic calculations and specify the location and size of the pie. The pie can also be rotated to start at a given angle expressed in hours and minutes. Moreover, provisions for multiple title lines and footnotes plus the ability to place general annotation anywhere on the page allows the production of a finished chart in a single pass.



Retail Price:

\$450

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts: Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREMENTS							
Computer Model:	HP 9845B/C & 9836				7470, 9872, 7580		
Memory:	187K (45)	256K (Basic Ro		Plotters. monitor (9			
Operating System:	BASIC 2.0	512K (Basic Ra	am)	i	nterphase req.)		
Other Software:							
CUSTOMER SUPPO	RT						
Geographic Area Sup	ported:						
<ul><li>Worldwide</li><li>□ U.S. (all regions)</li><li>□ East</li><li>□ South</li><li>□ Midwest</li><li>□ West</li></ul>	☐ Latin America	(all)	ope (all)		tralia/N.Z.		
Support Services Ava	ilable:						
☼ phone-in support ☼ on-site consulting	•	mail-in support on-site systems er	ngineers		ote dial-in gram modification		
Additional Support Information and Pricing:  Annual Program Maintenance & Support Services including program updates and enhancements available.							
CUSTOMER TRAINI	NG/DOCUMEN	TATION					
Training Available: On-site training Price: \$350/day + expenses.							
\$15.					additional copy		
Documentation Available in other languages: NO							
NUMBER OF INSTALLATIONS: see below DATE OF FIRST INSTALLATION: see below							
ADDITIONAL INFO	RMATION						
products so products for since July	lely for Hewl r the HP 2647 <i>f</i> 1981.	ett-Packard wo ./F and HP 125 h	oped and licenses rkstations. CSC ave been installe sies and features	graph: d at ov	ics software ver 250 sites		
		<del></del>					

#### RESPONSIBILITIES STATEMENT

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21014

**Expiration Date:** 

**Product Name:** 

CSC/VERTICAL

Mainframe(s):

HP 9845B/C & 9836

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CSC/VERTICAL is used to generate vertical bar charts in any of four basic formats.

Simple - Up to 24 bars

Stacked - Up to 24 bars with 6 stacks per bar.

Comparative - Up to 24 groups, each

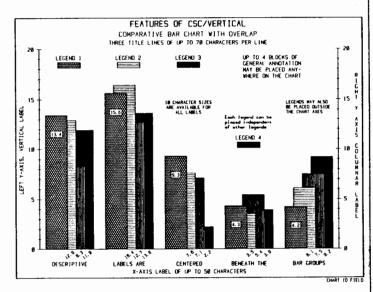
having 6 bars per

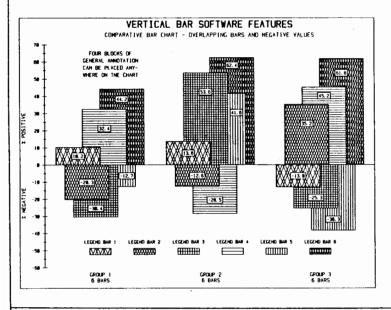
group.

Overlapping - A variation of the

Comparative format in which each bar overlaps the next bar

in its group.





Overlapping bars, with their hidden surfaces, create the illusion of depth or a third dimension. The Windowing of values placed inside the bars permits the shading of the bars without obscuring the values.

Retail Price:

\$450

Multiple product, installation and corporate discounts available.

Contacts:

Company Name: COMPUTER SUPPORT CORPORATION

Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREMENTS						
Computer Model:	HP 9845B/C 8	¥ 9836			470, 9872, 7580	
Memory:	187K (45)	256K (Basic		m	lotters. RGB onitor (9836 RGB	
Operating System:	BASIC 2.0	512K (Basic	kam)	1	nterphase req.)	
Other Software:						
CUSTOMER SUPPO	PRT	~				
Geographic Area Sup	ported:					
<ul><li>Morldwide</li><li>U.S. (all regions)</li><li>□ East</li><li>□ South</li><li>□ Midwest</li><li>□ West</li></ul>	☐ Latin America	(all)	Europe (all)		East (all)	
Support Services Ava	ilable:					
D phone in support on-site consulting		mail-in support on-site system			ote dial-in gram modification	
Additional Support Information and Pricing: Annual Program Maintenance & Support Services including program updates and enhancements available.						
CUSTOMER TRAIN	ING/DOCUMEN	TATION				
Training Available:	On-site trai	ning		Price:	\$350/day + expenses.	
Documentation Available: Training & Reference manual  Price: 1 copy included additional copy \$15.						
NUMBER OF INSTALLATIONS: see below DATE OF FIRST INSTALLATION: see below						
ADDITIONAL INFO	RMATION					
Computer Support Corporation has developed and licenses graphics software products solely for Hewlett-Packard workstations. CSC graphics software products for the HP 2647A/F and HP 125 have been installed at over 250 sites since July 1981.  A detailed description of the capabilities and features of each product is available upon request.						

### RESPONSIBILITIES STATEMENT

### **HP USE ONLY**

I.D. Code:

Application Code: 79.21015

Expiration Date:

Product Name:

CSC/HORIZONTAL

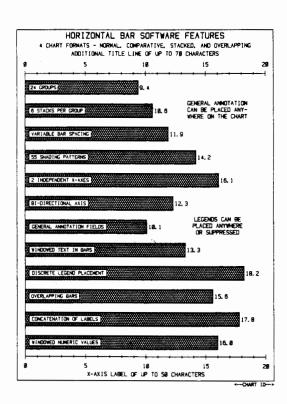
Mainframe(s):

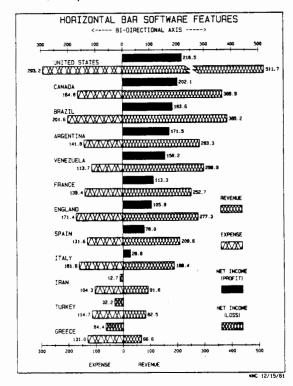
HP 9845B/C & 9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CSC/HORIZONTAL retains all of the characteristics of the vertical program plus two additional features.

Labels for the bars may be placed inside the bar and Windowed to permit shading of the bars without obscuring the annotation.





A Bi-Directional axis can be drawn in two directions from a mid-point value right and left of the mid-point. The right and left scales are positive in both directions and the values at the extremes are independent of each other

Retail Price:

\$450

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts: Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREMENTS						
Computer Model:	HP 9845B/C & 9836 187K (45) 256K (Basic Rom)			Peripherals:	7470, 9872, 7580 Plotters. RGB monitor (9836 RGB	
Memory:						
Operating System:	BASIC 2.0	512K (E	Basic Ram)		interphase req.)	
Other Software:						
CUSTOMER SUPPO	RT		· · · · · · · · · · · · · · · · · · ·			
Geographic Area Supp	ported:					
	<ul><li>□ Canada</li><li>□ Mexico</li></ul>				ar East (all)	
Support Services Avai	lable:					
D phone in support on-site consulting		mail-in si     □ on-site sy	upport ystems engin <del>e</del> ers		mote dial-in rogram modification	
Additional Support Information and Pricing: Annual Program Maintenance & Support Services including program updates and enhancements available.						
CUSTOMER TRAINI	NG/DOCUME	NTATION				
Training Available:	On-site tra	ining		Price	expenses.	
Documentation Available: Training & Reference manual Price:					3: 1 copy included additional copy	
Documentation Available in other languages: NO						
NUMBER OF INSTALLATIONS: see below DATE OF FIRST INSTALLATION: see below						
ADDITIONAL INFO	RMATION					
Computer Support Corporation has developed and licenses graphics software products solely for Hewlett-Packard workstations. CSC graphics software products for the HP 2647A/F and HP 125 have been installed at over 250 sites since July 1981.						
A detailed d available up			pabilities and f	features of ea	ach product is	
RESPONSIBILITIES S	TATEMENT			2.14		

**HP USE ONLY** 

I.D. Code:

Application Code: 79.21016

**Expiration Date:** 

**Product Name:** 

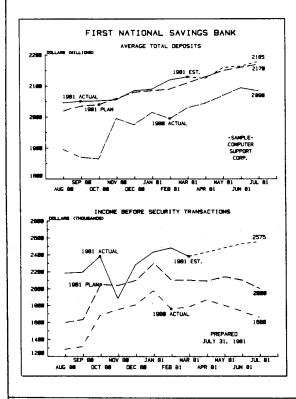
CSC/LINEAR

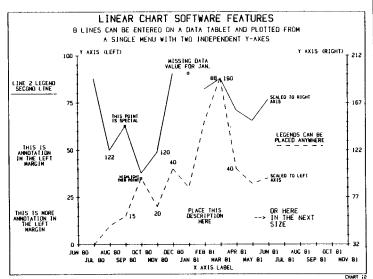
Mainframe(s):

HP 9845B/C & 9836

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

CSC/LINEAR produces linear charts from a single menu in a one pass operation. Thus the user is provided with a simple means of presenting data in a linear format, with emphasis on one-step production of fully annotated charts.





Provision for 2 independent Y-axes. plotting of 8 sets of values, placement  $\mathsf{of}$ point annotation. general text and legends anywhere on the chart, are indicative of the flexibility of the program.

Data can be entered with a DATA TABLET, a function key data entry menu that allows inserting, deleting, roll-up, roll-down and other features to facilitate quick and efficient entry of X-Y data values.

Retail Price:

\$450

Multiple product, installation and corporate discounts available.

Company Name: COMPUTER SUPPORT CORPORATION

Contacts:

Fred Schoeller

Mike Kallet

Address:

4215 Beltwood Pkwy., Dallas, Texas 75234

Telephone:

(214) 661-8960

SYSTEM REQUIREM	MENTS					
Computer Model:	HP 9845B/C	& 9836		Peripherals:	7470, 9872, 7580	
Memory:	187K (45)				Plotters. RGB monitor (9836 RGB	
Operating System:	BASIC 2.0	512K (Ba	sic Kam)		interphase req.)	
Other Software:						
CUSTOMER SUPPO	PRT					
Geographic Area Sup	ported:					
<ul><li>₩ Worldwide</li><li>U.S. (all regions)</li><li>East</li><li>South</li><li>Midwest</li><li>West</li></ul>					ar East (all) ] ] ] ustralia/N.Z.	
Support Services Ava	ilable:					
					emote dial-in rogram modification	
Additional Support Information and Pricing: Annual Program Maintenance & Support Services including program updates and enhancements available.						
CUSTOMER TRAIN	ING/DOCUMEN	ITATION				
Training Available:	On-site trai	ning		Pric	e: \$350/day + expenses.	
•					additional copy	
Documentation Available in other languages: NO						
NUMBER OF INSTALLATIONS: see below DATE OF FIRST INSTALLATION: see below						
ADDITIONAL INFO	RMATION	-				
Computer Support Corporation has developed and licenses graphics software products solely for Hewlett-Packard workstations. CSC graphics software products for the HP 2647A/F and HP 125 have been installed at over 250 sites since July 1981.						
A detailed description of the capabilities and features of each product is available upon request.						
RESPONSIBILITIES S	STATEMENT					

# HEWLETT-PACKARD SOFTWARE SUMMARY

Applica	ation Code:	
	79.22001	

Mainframe(s)					
Series	200,	9845B/T			

Program Title

**FORECASTING** 

### **Program Description**

Objectively evaluating historical results and then accurately predicting future values are the bases for many important commercial and scientific decisions.

To aid in the decision-making process, Hewlett-Packard has developed the Forecasting application software package. This pack contains statistical routines that analyze and smooth initial raw data under a variety of assumptions to determine trends, seasonality, and random variations. In addition, five alternative forecasting methods are available for applications such as sales forecasting, cash planning, setting expense and budgets, manpower projections, and production/inventory planning and control.

This software package operates with the HP 9826A, 9836A and System 45 Desktop Computers and provides:

- an interactive display (CRT) that allows you to continually evaluate the data and results of the several successive steps typically required to produce accurate, valid forecasts,
- an internal thermal line printer that can quickly and conveniently reproduce the figures and graphic results displayed on the CRT,
- Special Function keys that let you easily access the many options in the Forecasting programs by pressing a single key.

The Forecasting software pack includes programs that characterize, smooth, and forecast time series data. The following programs describe the typical sequence of forecasting operations from data entry through analysis and forecasting to final CRT display or hard-copy output.

Up to 250 equally-spaced data points can be entered from the keyboard or read from the tape cartridge or other compatible mass storage devices such as a flexible disk drive. These entries are sufficient to accommodate up to 20 years of monthly data or five years of weekly data.

After entering the data, you can analyze, evaluate and modify this information through several statistical routines. For example, simply press the FINITE DIFFERENCES key to determine linear, quadratic, and exponential trends.

The TREND REMOVAL key allows easy removal of a linear or quadratic trend using coefficients you supply or those generated by the program.

SEASONAL CORRECTION provides easy evaluation and removal of seasonal trends in the data. Variations in retail sales, for example, can show up as Christmas buying peaks or winter lulls in vacation-related purchases. The program will determine the correction factors, or you can enter your own correction factors.

Two "smoothing" techniques let you reduce random variations in the data. These techniques are (1) centered or equally-weighted MOVING AVERAGE and (2) single, double or triple EXPONENTIAL SMOOTHING.

The five forecasting methods available are:

- linear to a specified point, exponential growth,
- exponential smoothing.

- linear growth,
- linear regression,

In all cases you can include a seasonal pattern in the forecast by using the SEASONAL CORRECTION routine to provide correction factors.

With the CRT display and graphics hardware option, data and forecasts can be plotted using four line types. The system allows for an unlimited number of plot overlays. This means you can, for example, compare raw data with smoothed data or forecasts using alternate methods. The graphic display can then be reproduced dot-for-dot on the internal thermal line printer when you press the DUMP GRAPHICS key. Graphic display can also be reproduced on optional 9872 Plotter with four-color capability.

A variety of defaults are incorporated into the programs, providing a time-saving feature. For example the plotting routine automatically determines tick spacing and maximum-minimum values so you don't have to spend time determining values for each plot. These defaults not only simplify using the programs but also furnish flexibility. You have the option of using your own values if you wish.

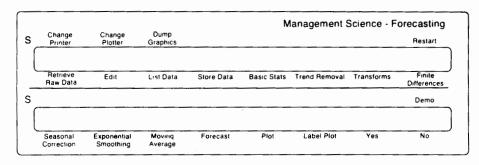


Figure 1. Reproduction of the Forecasting overlay which fits over the System 45B's Special Function keys.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B w/Opt. 700, Opt. 560 9816A/9826A/9836A

**Price:** \$500 \$500

HP Software Part Number: 09845-10610 98818A, req. media opts: 630 3½", 650 5¾" external, 5¾" internal

**Memory Options:** 56K bytes r/w memory 98256A

Language/ROMs: Graphics ROM Opt. 311 BASIC 2.0

Peripherals: Optional: Second Tape Optional: printer

Transport (Opt. 600), plotter

9872 Graphics Plotter

Comments:

Contact your local HP Sales Office for additional information

### HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:
79.22002

Mainframe(s) Series 200, 9845T/C Program Title

### **GRAPHIC PRESENTATIONS**

### **Program Description**

Overhead slides of bar charts, pie charts, line charts, and text material can now be created easily and quickly using Hewlett-Packard's Series 200 or 9845B, the 9872 Four-Color Plotter, and the Graphic Presentations software. This versatile pack allows you to create — on acetate or paper — professional quality presentation materials that will impress your audience and help hold their attention.

With features such as Roman and Gothic character styles, variable letter sizes, multiple colors and different shading techniques, your slides will look as if a graphic artist created them. You'll want to use this pack for all your customer presentations, management meetings, sales meetings, management reports, and much more.

HP's Series 200 or 9845B Desktop Computer, 9872 Plotter, and Graphic Presentations software were all designed to be easy to use. Even if you've never used a computer before, you'll be creating slides and charts in no time at all.

The integrated design provides you with a typewriter-like keyboard, graphic CRT, large memory, mass storage, central processor, and (on the 9845B) internal thermal printer — all in one compact unit small enough to sit on your desk.

With HP's snap-in interface cards, you can have the 9872 Four-Color Plotter ready to run in seconds. Working through the Graphic Presentations pack is just as simple. Conversation-like user prompts appear on the CRT to guide you through the program. Special Function keys are set up so that most operations are executed with a single keystroke. For example, to underline certain text, just press the "LINE DRAWING" key and you will be able to quickly specify a beginning and ending point to the line.

The charting module of the program rounds out your presentation needs by providing charting capability that previously took hours to create manually. Now, with the Charts module, you can store numeric data and plot it out many different ways. For instance, you may wish to store your monthly sales data by both sales regions and totals, and then print out a bar chart for sales by month and a pie chart showing the distribution of sales by region. Sound difficult? Well, with this Graphic Presentations pack, it's no problem. Figures 1, 2, and 3 indicate three ways this might be accomplished for a management presentation.

In addition to being able to print your data in bar, pie, and line charts, you can also specify input as graphic where you move the cursor to the desired position or as numeric where you key in the values. Once this is done, the program automatically scales the axes and draws the graph. Specifying up to four different colors per chart will add even more clarity and professionalism to your presentation. To help keep lines and surfaces clearly defined on your chart, up to eight different line types and surface textures are provided. Featured in Figure 1 are a few of the line types and shading textures. Titles, subtitles, and footnotes are user specified for each chart along with axis labels, and legends.

Once you have created a slide, you may wish to make changes — like move certain portions to another area of the slide, delete or add additional information. With the flexible editing routines provided in this pack editing is easy and quick. Once you have modified the slide to meet your need, it can be stored for later use. You can store dozens of slides on a single cartridge — changing or deleting them as necessary.

You can also easily combine Text Transparencies and Charting by using the composing feature of this pack. You can merge text slides with Bar, Pie, or Line charts to create documents such as annual reports, management reports, and other graphic presentations that require some written explanation. For an example of this, see Figure 3.

If you plan to use the Basic Statistics and Data Manipulation pack on the 9845B to analyze your data, you'll be pleased to know that the Graphic Presentations pack conforms to the Statistics data structure. With this feature, you won't need to re-enter data from one pack to another. The data can be accessed by either program.

If your management needs include making presentations to French, Spanish, German, or Finnish/Swedish speaking business associates, you will be pleased to know that all special European characters are included in the pack. A few of these are:  $\ddot{A}$ ,  $\ddot{B}$ ,  $\ddot{n}$ ,  $\hat{a}$ ,  $\varsigma$ ,  $\dot{o}$ ,  $\dot{i}$ , etc.

### ABC BICYCLE COMPANY SALES FOR THE SECOND QUARTER OF 1978

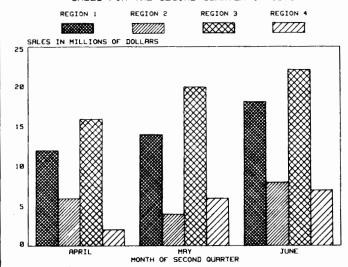


Figure 1. The Bar Charting function provides the flexibility to make vertical plots. It also allows you to enter four observations per variable.

### ABC BICYCLE COMPANY TOTAL SALES FOR 1978

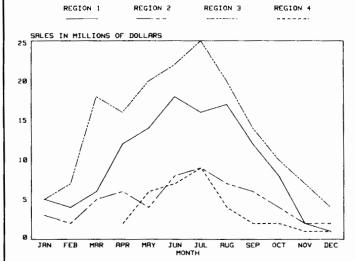


Figure 2. A third charting operation creates line charts like the X-Y plot shown

### ABC BICYCLE COMPANY Annual Report

The year 1978 has been particularly good for ABC Bicycles. Sales increased 27% over 1977 with profits reaching a high of 15.2%.

### ABC BICYCLE COMPANY TOTAL SALES FOR 1978

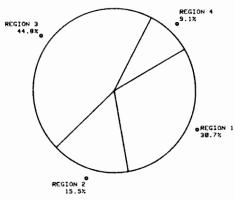


Figure 3. The composing feature combines text with charts allowing you to annotate your documents.

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9845B opt. 150

9816A/9826A/9836A 9845B opt. 250 or 9845C opt. 150/250

Price: **HP Software Part Number:**  \$750

\$750

\$750

09845-10540

98815A

09845-15230

**Memory Options:** 

98256A

Language/ROMs:

BASIC 2.0

Required Media Options:

630 31/2"

650 51/4" external 655 51/4" internal

Peripherals:

9872 plotter

9872 (or other

9872 plotter

compatible) plotter

Both software packs include a manual and program cartridge or discs. To create transparencies, HP Overhead Transparency Kit (part no.17055A) must also be

Comments:

ordered. Includes 16 plotter pens, 200 acetate sheets, and solvent. Contact your local HP Sales Office for additional information



### HEWLETT-PACKARD SOFTWARE SUMMARY



Application Code:

79.22004

Mainframe(s) 9845B/T Program Title

### LIST MANAGEMENT

### **Program Description**

Mailing lists, library cataloging, personnel files, and many other listing needs can now be managed easily and quickly with HP's new List Management software pack. This program together with HP's powerful 9845B Desktop Computer, offers you a flexible and efficient method for reducing time-consuming list manipulations such as mailing label preparation, sorting, sublisting, merge/purge operations and other list maintenance activities.

At each step of the list management procedure — from data preparation and entry to printout — the versatility of this software is impressive. The data manipulation capabilities allow you to enter names in any sequence (even out of sequence), locate duplicate entries, or quickly add/change/delete any name. A new data field can be added to the list at any time in case you overlooked it in the original set-up.

The flexibility of the program becomes readily apparent when you wish to sort a list in several different ways. The entire list or portions thereof can be sorted according to name, zip code, occupation, catalog number, author, title, or any other variable you choose. You can even sort out those names with missing data. Add to this the capability of searching for a name on the list without knowing the correct spelling of that name and you have real flexibility!

To set-up the system for a specific list, you merely designate the number of data items for each name and give a meaningful title to each item such as FIRST NAME, LAST NAME, ADDRESS, ZIP CODE, etc. There is no limit to the number of items per name. The number of names is limited only by the size and type of mass storage device used.

A list is entered into the system through the computer's typewriter-like keyboard. Each name can be edited on the CRT screen as it is entered. List ordering or sequence can be based on any item within the name.

New lists can be created from old ones already on the computer. The program features a RESTRUCTURE module that allows you to input the original list, make changes or additions and output a duplicate list incorporating all those changes. For example, to take advantage of lower bulk mailing rates, you may want to duplicate your existing list, add missing zip codes, and re-arrange the new list according to zip code sequence. Or you may want to make a duplicate list, add a new item and keep the original as a back-up.

With the RESTRUCTURE module, you can add new data items to the names after the list has been prepared. For instance, you might need to add telephone numbers to your mailing list. This is easily done by setting up a new list with TELEPHONE NO. as one of the elements and then performing the RESTRUCTURE routine.

Whether you need mailing labels, a columnarized listing, pre-printed forms or any other printing or reporting format, it is easy to set-up the layout you need. You can format the data in any order, omit or duplicate information and print out the entire list or any portion of it

Label printing for internal or external mailings is easy with the HP List Management software, the 9845B desktop computer, and an optional impact printer. You can select any label size and print them on continuous or pre-cut forms as many as four-up with only a minor program change. (See Figure 2.)

You can designate any portion of the data or any distribution of names to be printed by using the SELECTION CRITERIA Special Function key. This key, identified by a special key overlay supplied with the software pack, allows you to choose as many as five different selection criteria and use them for printing. For example, you could print labels for only those persons on your list who live in Utah or only those whose zip codes are between 80203 and 80525. At any point you can override the selection criteria and print the entire list.

Wesley Schaeffer 2420 W. 22nd Loveland Colo. Wesley Schaeffer 2420 W. 22nd Loveland CO. 80537 80537 Wesley Schaeffer 2420 W. 22nd Loveland CO.

Wayne Laudrick 812 W. 4th New Raymer Colo. Wayne Laudrick 812 W. 4th New Raymer CO. 80542 80542 Waynė "Laudrick 812 W. 4th New Raymer CO.

Figure 1. The original mailing list...

restructured by adding Zip Codes, changing the state abbreviation and re-ordering by Zip Code sequence. Then, the print-out format is changed.

Occasionally, you may want to randomly sample your list. To do this, merely specify the sample interval or criteria — every third name, every other name, etc. Once the distribution is chosen, the computer will print only those names and ignore the rest.

Other Lists. With this software you can manage many kinds of small data lists other than mailing lists:

- Library Cataloging
- Personnel Records
- Vendor Data
- Equipment Information
- Customer Lists

For example, in Library Cataloging, you can alphabetize according to author, title, or Library of Congress Number. With such lists you can cross reference books according to subject matter, code numbers, publication dates or any other category. (See Figure 3.)

HELP — This Special Function key acts as an operator's "minimanual" by giving you additional instructions in the use of the software pack. DATA BACK-UP — You needn't worry about losing data with this feature. A module is included in the program that allows easy back-up of a list after modifications have been made.

NO DATA — When the program asks you for missing data and that data is not available or is unnecessary, this Special Function key allows you to skip that entry and go on to the next.

EXIT — This function lets you stop the program at any point and then return to that same point at a later time.

KEYLINE — Normally, a collage of selected pieces of data items used to "catch" duplicate entries. Only minor software modifications (documented in the manual) are required to change the keyline to suite your needs.

Sybil Jones 143 North Ave. Platteville NB.

Wayne Laudrick 812 W. 4th New Raymer CO. 80542

Figure 2. Mailing labels like these can easily be created using the List Management pack, the System 45B and an optional HP impact printer.

ALCOL for Beginners Sams, Roy 0876.5.833.197
Hawdii Roberts, William & Evelyn G153.P197
HHOTOGRAPHY!!! Alcott, J. N. 7R250
Social and Political Unrest in 1966 Heiser, James A. HN52.H21

Alcott, J. M. PHOTOGRAPHY!!! TR350
Heiser, James A. Social and Political Unrest in 1966 HN59:H21
Roberts, William & Evelyn Hawaii
Sames, Roy ALGOL for Beginners 9876.5.533.1977

G153.R197 Hawaii Poberts, Milliam & Evelyn HN58.H21 Social and Political Unrest in 1366 Hoiser, James A. 0876.5.S33.197 ALGOL for Beginners Sams, Koy 1P350 PH07DGPAPHY!!! Alcott, J. M.

Figure 3. Library cataloging arranged according to (A) title, (B) author and (C) Library of Congress number.

### ORDERING/HARDWARE INFORMATION

Mainframe(s):

9845B w/56K bytes memory, second tape drive Opt. 600

**Price:** \$50

HP Software Part Number: Memory Options: **\$500** 

09845-10630 (includes manual, program cartridge, overlay)

ROMs:

Peripherals:

Optional: 9871 or 2631 impact printers

Comments:

If larger memory is required additional read/write memory is available with the

9885 M/S Flexible Disk Drive or the Series 7900 Hard Disk Drives.

Contact your local HP Sales Office for additional information



### **HEWLETT-PACKARD** SOFTWARE SUMMARY

Application	Code:	
		_

79,22005

Mainframe(s)	
9845B/C	

Program Title

Computer-Aided Presentations/45

### **Program Description**

Computer-Aided Presentations/45, a software product, is a graphics presentation application program for the HP 9845. The program runs on the HP 9845C or the HP 9845B with the enhanced graphics CRT.

Computer-Aided Presentations/45 is the first of Hewlett-Packard's software products to provide nine font types, sketch and draw capability, and four standard chart types. The area fill feature permits one to use all the 4913 available colors on the HP 9845C CRT and the 17 shaded patterns on the HP 9845B CRT. The program is menu driven. An HP 9111A Graphics Tablet is used as an input device for providing control and data to the programs. There are three programs: Text, Pictures, and Charts. These programs are used to create the slide image. Once the slides are created and are in their final format, they can be plotted on paper or acetate, or photographed directly from the CRT or output to a special video camera via the HP 98776A video interface. The direct screen photography produces 35mm slides which can be used for internal presentations and for customer training, and instant 3x4 color prints.

As mentioned earlier, there are three slide creation programs: Text, Pictures, and Charts. The Text program serves two purposes. First, it enables one to create, store, and plot images containing characters and permits choosing from twelve text sizes and nine fonts. The variety of fonts, in twelve sizes, allows one to create the desired emphasis or visual impact. Text strings can be placed anywhere on the slide. They can be edited as to size, type of font, and color. They can be centered, rotated, and moved.

The other purpose of Text is to enable one to combine several slides together onto one slide, or to put text on slides made with the Pictures or Charts programs.

The Pictures program lets one create, store, and plot images consisting of lines, arcs, rectangles, and circles. Any object that is drawn can be filled. For the HP 9845B CRT area fill can be done with any of the 17 monochromatic fill patterns or the seven cross-hatch patterns. The HP 9845C CRT permits area fill to be any of the 4913 colors, or any of the seven cross-hatch patterns drawn in any of the eight pen colors.

The Charts program enables you to create, store, and plot four kinds of charts: line charts, pie charts, stacked bar charts, and clustered bar charts. Any pie slice or bar can be area filled. The area fill capability is the same as in the Pictures program. A chart slide can be combined with text, or any other chart or picture.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845C or 9845B with enhanced graphics CRT

Price: Not available until 1 March, 1982

HP Software Part Number: 98816A

448K bytes R/W memory required **Memory Options:** 

> ROMs: Graphics required

Mass Storage (if disc is included) I/O (if variable-size plots wanted)

Peripherals: 9111A Graphics Tablet required

For color plots: 9872C/T or 7580A

For photo output: 98776A RGB Video Interface for sending slide to

certain cameras or monitors; 98777A Camera Attachment for

Comments: direct screen 35mm photography of screen image.

Contact your local HP Sales Office for additional information



I.D. Code: 10081

Application Code: 79.31001

**Expiration Date:** 

Product Name:

Mainframe(s):

Professional Tax Plan

HP 86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

### PRODUCT ABSTRACT

Designed for the professional tax planner (accountants, attorneys, financial planners, etc.), PROFESSIONAL TAX PLAN is a problem-solving tool that quickly determines accurate answers to various "What IF?" tax situations. Although it is sophisticated and comprehensive, the program is easy to use. Even individuals with no prior computer knowledge can begin using the program confidently and productively within an hour.

### BASIC PRODUCT INFO

PROFESSIONAL TAX PLAN will calculate up to five different fact situations, simultaneously or a projection of up to five years. The user may immediately see the tax effects of changes in income or expense items. Data may be saved for later change or review, and results may be displayed on the screen or printed for permanent record. The program requires no computer experience and features a complete user manual with test cases and step-by-step instructions.

### USER SPECIFIC DETAILS

PROFESSIONAL TAX PLAN calculates federal tax liability for tax years 1981 through 1984, minimum and alternative minimum tax, ten-year averaging for lump sum distributions, and the capital gain deduction. Charitable contributions are also calculated. Indexing is provided for tax years 1985 and thereafter.

### FEATURES AND BENEFITS

Screen messages guide the user through all phases of this menu-driven program. Single-character, special function keys simplify data entry. Help screens, providing additional information regarding tax items, are available at the touch of a key. Customer support is provided free of charge to licensed users by Aardvark's staff of tax and computer professionals. The program has been reviewed and tested by Touche Ross & Co., a prestigious international public accounting firm, and their opinion letter is included in the user manual.

Retail Price:

\$350.00

Hewlett-Packard Product No. 00087-16005

Company Name:

Aardvark Software, Inc.

Contacts: Mr. Robert J. Horn

Address:

783 North Water Street Milwaukee, WI 53202

Vice President Sales/Marketing

Telephone:

(414) 289-9988

SYSTEM REQUIRE	EMENTS	
Computer Model:	HP 86, 87 with CP/M Card Peripher	<sup>rals:</sup> Printer
Memory:	64K	
Operating System:	CP/M	
Other Software:		
	~	
CUSTOMER SUPP	ORI	
Geographic Area Su		
☐ Worldwide  X U.S. (all regions)	☐ Canada ☐ Europe (all) ☐ Mexico ☐	FI .
□ East	Latin America (all)	
□ South □ Midwest		
□ West	□ □ South Africa	☐ Australia/N.Z.
Support Services Av	vailable:	
🕱 phone-in support		☐ remote dial-in ☐ program modification
	Information and Pricing:	
Additional Support	mornation and Fricing.	
CUSTOMER TRAIL	NING/DOCUMENTATION	
Training Available:		Price:
Documentation Ava	ilable: Reference Manual and Demonstration	Price: \$35.00
Documentation Ava	ilable in other languages:	
NUMBER OF INST	TALLATIONS: DATE OF FIRST INSTA	LLATION:
ADDITIONAL INF	ORMATION	
RESPONSIBILITIES	STATEMENT	



I.D. Code: 10081

Application Code: 79.31002

**Expiration Date:** 

Product Name:

Mainframe(s):

Personal Tax Plan

HP 86, 87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits. etc.)

### PRODUCT ABSTRACT

PERSONAL TAX PLAN is designed to help the home user plan for his or her federal personal income tax. It can be used to evaluate how changes in income or expense will affect an individual's tax liability. The program, which can be used throughout the year, is easy to use. Even individuals with no prior computer knowledge can begin using the program confidently and productively within an hour.

### BASIC PRODUCT INFO

PERSONAL TAX PLAN will calculate up to five different "What If?" tax situations. That is, you can evaluate alternative situations, involving changes in filing status, charitable contributions, capital gains, and various other tax items. Or, you may examine projections of up to five years and plan your tax strategy accordingly.

### USER-SPECIFIC DETAILS

The tax situations which you create may be saved for future change or review. Results may be displayed or printed for permanent record. A detailed user manual, with step-by-step instructions, accompanies the program. Familiarity with federal tax law, such as that found in the Federal Form 1040 instruction booklet, is required.

PERSONAL TAX PLAN calculates federal tax liability for tax years 1981 through 1984, using appropriate tax tables and rate schedules. It also calculates medical expense, capital loss and charitable contribution limitations, as well as the capital gain deduction and two-earner married couple deduction.

### FEATURES AND BENEFITS

Screen messages guide you through all phases of this menu-driven program. Single-character, special function keys simplify data entry. Help screens, providing additional information regarding tax items, are available at the touch of a key. The program has been reviewed and tested by Touche Ross & Co., a prestigious international accounting firm, and their opnion letter is included in the user manual.

Retail Price:

\$140.00

Hewlett-Packard Product No. 00087-16006

Company Name: Aardvark Software, Inc

Contacts: Mr. Robert J. Horn

Address:

783 North Water Street Milwaukee, WI 53202

Vice President Sales/Marketing

Telephone:

(414) 289-9988

SYSTEM REQUIR	EMENTS	
Computer Model:	HP 86, 87 with CP/M Card	Peripherals: Printer
Memory:	64K	
Operating System:	CP/M	
Other Software:		
CUSTOMER SUPP	ORT	
Geographic Area Su	upported:	
☑ U.S. (all regions)	☐ Mexico ☐ ☐ Latin America (all) ☐	rica — Australia/N.Z.
Support Services Av	vailable:	
X phone-in support □ on-site consultin	☐ mail-in support g ☐ on-site systems enginee	☐ remote dial-in ☐ program modification
	Information and Pricing:	
CUSTOMER TRAIL	NING/DOCUMENTATION	
Training Available:		Price:
Documentation Ava	ilable: Reference manual and demo	nstration. Price: \$35.00
Documentation Ava	ilable in other languages:	
NUMBER OF INS	TALLATIONS: DATE OF	FIRST INSTALLATION:
ADDITIONAL INF	ORMATION	
·		
RESPONSIBILITIES	STATEMENT	



I.D. Code: 10068

Application Code: 79.31003

**Expiration Date:** 

Product Name: SUPERCALC tm

Mainframe(s): HP-86/87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

SuperCalc provides the non-programmer a means of using a microcomputer's memory as a large worksheet containing rows and columns of labels, numbers, and formulas that are derived from the values of other "cells", in the matrix. This dependent-formula concept allows three columns, for instance, to represent projected sales, overhead, and profit for a twelve month period. Change in any month's sales or overhead value will cause an automatic and immediate recalculation (and re-display) of that month's profit figure.

Some features of SuperCalc include:

Highly flexible data entry and editing capability. A single keystroke enters a typed value into a cell and advances to the next cell in the current row or column. The current contents of a cell may be easily modified using a simple-to-understand line editor.

Similarly flexible data display options; including individually

Similarly flexible data display options; including individually modified column widths, numeric display options, and label headings not affected by columns width.

All commands are "menu" prompted, with one keystroke from the user being "filled-in" by SuperCalc for immediate verification of dialogue Protection of the contents of any cells, with an "autosearch" capability that advances to the next non-protected cell.

Ability to replicate any block of the worksheet (or a previously saved worksheet) to any portion of the current worksheet. Formulas may be replicated either as formulas or as their current value. Any portions of the worksheet may be selected to be printed as a hard copy report of the data.

Unrecognizable keyboard entry is diagnosed immediately with an error display. Errors may be corrected without complete command re-entry. At any time help (via the Question mark key) may be used to clarify expected input command language.

SUPERCALC IS A TRADEMARK OF SORCIM CORPORATION

Retail Price:

\$295.00

Company Name: SORCIM CORPORATION

Contacts: Bob Robertson
John Houston

Address:

405 ALDO AVENUE

SANTA CLARA, CA 95050

Telephone:

(408) 727-7634

SYSTEM REQUIR	EMENTS			
Computer Model:	87		Peripherals: Disk	& Printer
Memory:	64K and larger			
Operating System:	CP/M			
Other Software:				
CUSTOMER SUP	PORT			
Geographic Area S	upported:			
U.S. (all regions)	Latin America (all)			
Support Services A	vailable:			
☐ phone-in suppor ☐ on-site consulting	rt □ mail ng □ on-s	-in support ite syst <b>e</b> ms engine <b>e</b> rs	□ remote □ progra	e dial-in m modification
Additional Support	Information and Pricing:			
CUSTOMER TRA	INING/DOCUMENTATION	ON		
Training Available:			Price:	
Documentation Av	ailable: Yes		Price:	
Documentation Av	ailable in other languages	s: Yes. Japanes	e/French	
NUMBER OF INS	STALLATIONS: 30,00	DATE OF FIR	ST INSTALLATION:	SEPTEMBER '8
ADDITIONAL IN	FORMATION			
RESPONSIBILITIES	S STATEMENT .			



I.D. Code: 10085

Application Code: 79.31004

Expiration Date:

Product Name:

### WordStar®

Mainframe(s):

HP-86/87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

WordStar® is a screen-oriented word processing system designed for people with no previous computer experience. Both initial entry of text and revisions are displayed directly on the screen during typing as they will appear in print; "what you see is what you get." WordStar has a wealth of editing features, such as: automatic text justification, automatic paragraph indent and undent, simultaneous printing and editing, and dynamic page break display. Text can be inserted, deleted, moved, copied, or read from files. A word or phrase can be found and replaced with revised text. WordStar's print enhancements include: boldface, double strike, underline, strikeout, subscripts/superscripts, variable character pitch, variable line height. WordStar is sophisticated, yet easy to learn. Help messages, prompts, menus, and comprehensive manuals simplify learning.

Newest WordStar features include all new: easier-to-understnad help menus; horizontal scrolling, which makes it easier to create extrawide documents; and column move, which lets the user move columns in tables from one place to another, and delete and copy columns.

WordStar® is a Registered Trademark of MicroPro International Corp.

Retail Price:

\$495.00

HP Product Number: 00087-16001

Company Name:

MicroPro International Corp.

Contacts: Jan McGowan

Manager

Address:

33 San Pablo Ave. San Rafael, CA 94903

Public Relations/Comm.

Telephone:

(415) 499-1200

SYSTEM REQUIRE	EMENTS			
Computer Model:	HP-86/87		Peripherals:	
Memory:	48K			
Operating System:	CP/M			
Other Software:				
CUSTOMER SUPP	ODT		The transfer of the transfer o	
CUSTOWER SUFF		To Authorized Dealers	•	
Geographic Area Su	ipported:			
<ul><li>✗ Worldwide</li><li>☐ U.S. (all regions)</li></ul>	□ Canada □ Mexico	😂 Europe (all)	Far East (all)	
☐ East	☐ Latin Americ	ca (all)		
☐ South ☐ Midwest		[]		
□ West		South Africa	Australia/N.Z.	
Support Services Av	vailable:	To Authorized Dealers		
X phone-in support		X mail-in support	:: remote dial-in	
☼ on-site consulting	g	on-site systems engineers	program modification	
Additional Support	Information and F	Pricing:		
MicroPro ha	s 1500 dealer	rs and distributors worl	dwide.	
CUSTOMER TRAIL	NING/DOCUME	NTATION		
		ve training guide and re product package.	ference Price:	
Documentation Ava	nabic.	tar User's Manual tar Training Guide	Price: \$60.00 (if purch- \$20.00 ased sep- arately)	
Documentation Ava	ilable in other lan	0	German (User's Manual Only)	
NUMBER OF INST	TALLATIONS:	DATE OF FIRS	ST INSTALLATION:	
ADDITIONAL INFORMATION				
		•		
DECDONCIBILITIES	CTATEMENIT			

#### RESPONSIBILITIES STATEMENT



I.D. Code: 10085 Application Code: 79.31005

**Expiration Date:** 

Product Name:

### MailMerge

Mainframe(s):

HP-86/87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

> MicroPro's powerful multi-purpose file merging program. Used with WordStar®, MailMerge<sup>tm</sup> accomplishes complex word processing projects such as: personalized form letters, invoices, mailing labels and "boilerplate" legal documents out of many different standard paragraphs.

WordStar ® is a registered trademark of MicroPro International Corp. MailMerge is a Trademark of MicroPro International Corp.

Retail Price:

\$150.00

HP Product Number 00087-16002

Company Name:

MicroPro International Corp.

Contacts: Jan McGowan

Address:

33 San Pablo Ave

San Rafael, CA 94903

Manager Public Relations/Comm.

Telephone:

(415) 499-1200

SYSTEM REQUIR	EMENTS		
Computer Model:	HP-86/87		Peripherals:
Memory:	48K		*
Operating System:	CP/M		
Other Software:			
CUSTOMER SUPI	PORT		
CUSTOWER SUPI	roni		
Geographic Area S		ized Dealers	
Worldwide	☐ Canada	Europe (all)	Far East (all)
☐ East	☐ Latin America (all)	()	
☐ South		σ	
wildwest			☐ Australia/N.Z.
□ West	L	_ South Africa	( ) Austrana/N.Z.
Support Services A	vailable:		
🗴 phone in suppor	t <b>x</b> mail-in supp	ort	C remote dial-in
X on-site consulting	ng 🗀 on-site syste	ems engineers	program modification
Additional Support	Information and Pricing:		
MicroPro ha	as 1500 dealers and dist	ributors world	wide.
CUSTOMER TRAI	NING/DOCUMENTATION		
	Comprehensive training with each product pac		ference Price:
Documentation Ava	ailable: WordStar User's M WordStar Training		Price:
Documentation Ava	ailable in other languages: Fren	ch, Spanish, G	erman (User's Manual Only)
NUMBER OF INS	TALLATIONS:	DATE OF FIRST	r Installation:
ADDITIONAL INF	FORMATION		

### RESPONSIBILITIES STATEMENT



I.D. Code: 10085

Application Code: 79,31006

Expiration Date:

Product Name:

### SpellStar

Mainframe(s):

HP-86/87

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

> SpellStar<sup>tm</sup> is a spelling checker program that works with WordStar<sup>®</sup> to find spelling and typographical errors within WordStar text. SpellStar "proofreads" your document at thousands of words per minute, comparing what you've written with it's 20,000 word dictionary-ona-disk. Since SpellStar software operates within the WordStar program, you get to see every misspelling and typographical error in context before taking action. SpellStar flags each word with a flashing cursor, giving the user three choices: change the word, leave it as is, or leave it and add it to the dictionary - and it won't get flagged again. The user can put the word in the main dictionary, or just as easily, create supplemental dictionaries for such things as specialized terms or client names.

WordStar® is a registered trademark of MicroPro International Corp. SpellStar<sup>tm</sup> is a trademark of MicroPro International Corp.

Retail Price:

\$250.00

HP Product Number 00087-16003

Company Name: MicroPro International Corp.

Contacts: Jan McGowan

Address:

33 San Pablo Ave

Manager

San Rafael, CA 94903

Public Relations/Comm.

Telephone:

(415) 499-1200

SYSTEM REQUIRE	MENTS			-
Computer Model:	HP-86/87		Peripherals:	
Memory:	48K			
Operating System:	CP/M			
Other.Software:				
CUSTOMER SUPPO	ORT			
☐ South ☐ Midwest ☐ West  Support Services Ava  phone-in support	Canada Mexico Latin America (all)	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
🕱 on-site consulting	□ on-site	e systems engineers	☐ program modifica	ation
	nformation and Pricing: s 1500 dealers and	distributors world	wide.	
CUSTOMER TRAIN	IING/DOCUMENTATION	N		
Training Available: 0	Comprehensive train s with each product	ning guide and refe package.	rence Price:	
Documentation Avail	wordStar Use WordStar Tra		Price:	
Documentation Avail	lable in other languages:	French, Spanish,	German (User's Manual (	Only)
NUMBER OF INST	ALLATIONS:	DATE OF FIRST	TINSTALLATION:	
ADDITIONAL INFO	PRMATION			
RESPONSIBILITIES S	STATEMENT		110 11	



I.D. Code: 10034

Application Code: 79.31007

**Expiration Date:** 

Product Name:

WRITE/IDEA tm - WORD PROCESSING

Mainframe(s):

HP-83/85

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

WRITE/IDEA extends the power of the HP Series 80 system to increase your flexibility and productivity. An investment in WRITE/IDEA gives you a program that:

TURNS YOUR HP-83/85 INTO A PORTABLE WORD PROCESSOR

> PROVIDES QUICK, CONVENIENT, SINGLE TOUCH EDITING COMMANDS

FEATURES FULL CURSOR CONTROL, GLOBAL SEARCH/REPLACE, BLOCK MOVES, TEXT CENTERING AND JUSTIFICATION, AND MUCH MORE!

> PROVIDES FLEXIBLE FORMAT COMMANDS FOR PROFESSIONAL DOCUMENTS

INTERACTS WITH ANY SERIES 80 COMPATIBLE PRINTER AND THE NEW 7470A PLOTTER

You selected your HP Series 80 Personal Computer for its professional scientific and technical capabilities. Now, WRITE/IDEA expands your system to serve word processing applications.

WRITE/IDEA is a sophisticated, flexible, easily mastered word processing program that increases personal productivity. Reports, articles, letters, manuscripts, anything requiring word manipulation can be input and edited with simple commands incorporating the system soft key functions and interfaces to any HP Series 80 compatible printer.

You can even easily make projection slide transparencies of outlines, tables, or notes using a peripheral plotter like the new 7470A. All this with a portable system you can carry to conferences, seminars, and meetings.

WRITE/IDEA<sup>tm</sup> is a Trademark of Threshold Software.

Retail Price:

\$250.00

Company Name: THRESHOLD SOFTWARE

Contacts: Jerry Liquori

Address:

1832 Tribute Road Suite E

Sacramento, CA 95815

Telephone:

(916) 920-8189

SYSTEM REQUIREMENTS	
Computer Model: HP-83/85	Peripherals: ROM Drawer-82936A Any HP Series 80 compatible
Memory: 82903A 32K Memory Module	printers. Plotter/Printer ROM
Operating System:	00085-15001
Other Software:	Disc version requires Mass Storage ROM 00085-15001 and Disc Drive
CUSTOMER SUPPORT	
Geographic Area Supported:	
X U.S. (all regions)	Europe (all)
Support ervices Available:	
M phone-in support	ort
Additional Support Information and Pricing:	
CUSTOMER TRAINING/DOCUMENTATION	
Training Available:	Price:
Documentation Available: 75 page tutorial m to follow screen display examples (one copy supplied with product) Documentation Available in other languages: Spanish version under development	anual with easy Price: \$25.00 for additional copies
NUMBER OF INSTALLATIONS:	DATE OF FIRST INSTALLATION:
ADDITIONAL INFORMATION	
Please specify <u>Tape cartridge</u> or <u>D</u>	isk program when ordering.
Capability provided to make (1) on	e backup copy of program media.
Dealer inquiries are invited.	
	·

### RESPONSIBILITIES STATEMENT



I.D. Code: 10034

Application Code: 79.31008

**Expiration Date:** 

Product Name:

Mainframe(s):

WRITE/IDEA tm - WORD PROCESSING

HP-86/87

**PRODUCT DESCRIPTION:** (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

WRITE/IDEA will give the HP-86/87 owner a quick understandable and uncomplicated Word Processing system that has many sophisticated features:

- \* QUICK MINIMUM NUMBER OF KEYSTROKES TO ACCOMPLISH THE TASK!
- ★ UNDERSTANDABLE SINCE IT DISPLAYS COMPLETE SENTENCES OF UNBROKEN TEXT, CONCENTRATION ON THE ENTIRE IDEA IS ALLOWED!
- ★ UNCOMPLICATED BECAUSE WORD PROCESSING FUNCTIONS ARE SOFT KEY DEFINED AND YOU CAN START PRODUCING DOCUMENTS AND/OR OVERHEAD TRANSPARENCIES ALMOST IMMEDIATELY!



WRITE/IDEA FEATURES ARE DISPLAY POSITIONING, FULL CURSOR CONTROL, IMMEDIATE EDITING, DECIMAL AND NORMAL TABBING. YOU CAN SEARCH/REPLACE, AND FILE/REPLACE TO CREATE A FORM LETTER/MAILING LIST FUNCTION.

BLOCK FUNCTIONS ALLOW DELETE, INSERT, MOVE, MERGE, PRINT AND STORE.

PRINT FUNCTIONS PROVIDE USER DEFINED LINE LENGTHS, LINES PER PAGE, AND LEFT OR RIGHT JUSTIFICATION. CENTERING OF TEXT IS ALSO A FEATURE.



TRANSPARENCIES OF NOTES, TABLES, OR OUTLINES FOR USE WITH OVERHEAD PROJECTORS CAN BE MADE FROM DATA FILES CREATED BY WRITE/IDEA AND THEN PRODUCED ON PERIPHERAL PLOTTERS SUCH AS THE HP-7470A.

WRITE/IDEA is flexible and very friendly. It enables the user to gear fast production of documents from conception to finished hard copy. REPORTS, ARTICLES, LETTERS, MANUSCRIPTS, or any other TEXT DOCUMENTS can be created and edited with simple English commands and then printed on any HP Series 80 compatible printer.

Users who selected the HP-86/87 for analytical and technical applications can now expand to Word Processing with WRITE/IDEA. It operates in the native processor mode, thus negating the necessity of a CP/M module. It is easy to learn to use, will easily increase both quality and productivity of your documentation efforts, and the bottom line is that it will require little or no technical support to operate.

WRITE/IDEA tm is a trademark of Threshold Software, Inc.

Retail Price:

\$300.00

Company Name: THRESHOLD SOFTWARE

Contacts: Jerry Liguori

Address:

1832 Tribute Road Suite E

Sacramento, CA 95815

Telephone:

(916) 920-8189

SYSTEM REQUIRE	MENTS		Disk Systems
Computer Model: H	P-86/87		Peripherals: 82900, 9895M, 9135A
Memory: 82907A	32K Memory Module (minimum)		82936A ROM Drawer 00087-15002 Plotter ROM
Operating System:	(mrmmam)		(Optional)
Other Software:			
CUSTOMER SUPPO	ORT		
Geographic Area Sup	pported:		
Worldwide	X Canada E	Europe (all)	☐ Far East (all)
X U.S. (all regions)	☐ Mexico		
☐ East ☐ South	☐ Latin America (all)		
☐ Midwest			
□ West		South Africa	☐ Australia/N.Z.
Support Services Ava	ailable:		
hone-in support on-site consulting	🗡 mail-in suppo		☐ remote dial-in
☐ on-site consulting	☐ on-site syster	ns engineers	program modification
Additional Support In	nformation and Pricing:		
CUSTOMER TRAIN	ING/DOCUMENTATION		
Training Available:			Price:
Documentation Avail	able: Excellent tutorial	manual with e	easy Price: \$30.00 for each
to follow ex	amples and screen illust		additional copy
(one copy su	pplied with product) able in other languages:		
Documentation Avan	able in other languages.		
NUMBER OF INST	ALLATIONS:	DATE OF FIRST	INSTALLATION:
ADDITIONAL INFO	RMATION		
★ CAPABIL	ITY IS PROVIDED TO MAKE	ONE (1) BACK	JP COPY OF PROGRAM MEDIA.
★ SAMPLE APPLICA		CONTAINING IN	NSTRUCTIONAL PRINTER/PLOTTER
<b>★</b> ENHANCE	MENTS WILL BE PROVIDED /	AT A NOMINAL (	CHARGE AFTER DEVELOPMENT
<b>★</b> ENHANCE	MENTS MAY ALSO REQUIRE	ADDITIONAL COM	MPUTER MEMORY MODULES FOR:
1. 2. ★ DEALER INQUI	SPELLING DICTIONARY GRAPHICS UTILITY PROGI RIES ARE INVITED!	$_{RAMS}\Big\}$ when di	EVELOPED

### RESPONSIBILITIES STATEMENT



I.D. Code:

Application Code: 79.32001

Expiration Date:

Product Name:

Mainframe(s):

Graphics Presentations Application Pac

HP-83/85

Software Description:

Text and charts for professional quality reports and presentations can be generated quickly and easily, on acetate or paper, using the HP-83/85 Graphics Presentations Pac, In addition to the normal plotter character style, the Graphics Presentations Pac provides: Roman and smooth character styles; Upright or slanted variable letter sizes; Four colors; and Six hatching techniques.

After creating a few slides and charts with the manual as a reference, the user will be able to proceed by following the instructions and messages contained in the program. The slide creation section of the manual shows many detailed examples of slides from start to finish. In addition to the creation of slides, the examples also cover some of the editing features and storage capability built into the pac.

The Graphics Presentations Pac has the following features and capabilities:

- -<u>Text Mode</u>: 9 letter sizes; 3 type styles which can be either upright or slanted; 4 pen colors; 3 alternative highlighting capabilities (centered, underlined, both) in addition to no highlights; several special characters including many Greek letters and European characters.
- -<u>Pie Charts</u>: One or two pies; 2 to 25 slices per pie (each slice can be exploded independently); 6 hatching types; 4 pen colors; 15-character upright or slanted labels; optional percentage labeling; 32-character title and subtitle(s).
- -Bar Charts: Normal, clustered, or stacked bars; 1 to 25 bars (clusters); 6 hatching types; 4 pen colors; upright or slanted axes labels; 32-character title and subtitle(s).
- -<u>Line Charts</u>: 2 to 25 points; 6 line types; 4 pen colors; upright or slanted axes labels; 32-character title and subtitle(s).

Retail Price: \$200.00

Hewlett-Packard product number 00085-13038

## **SYSTEM REQUIREMENTS** Mainframe: HP083/85 ROMs: HP Plotter Printer ROM (00085-15002) HP 82903A 16K Memory Module Memory: HP 7470 or HP 7225 Plotter with HP 17601A Personality Module, Peripherals: HP 82937A HP-IB, HP 82936A ROM Drawer **ADDITIONAL INFORMATION**

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I.D. Code:

Application Code: 79.32002

Expiration Date:

Product Name:	Mainframe(s):
Graphics Presentations Pac	HP-86/87

### Software Description:

The HP-87 Graphics Presentations Pac allows you to create text, line, bar, and pie charts of the quality normally possible only by professional artists. Charts are created on the HP-87's large graphics display, and then plotted on any Hewlett Packard plotter. Charts may be plotted on paper for inclusion in reports or on acetate for overhead projection.

The major types of charts are:

-<u>TEXT CHARTS</u>: Text charts include six character styles in nine sizes. Styles include Smooth and Roman fonts, as well as the normal plotter character sets. In addition, the HP-87 Graphics Presentations Pac supports several foreign character sets.

Another important feature of text charts is the ability to do <u>LINE AND ARC DRAWING</u>. This allows easy creation of organization charts, time lines, and countless other enhancements.

- -<u>LINE CHARTS</u>: Line charts are an excellent tool for depicting trends over time or other relationships between two factors. The HP-87 Graphics Presentations Pac allows up to 6 lines to be plotted on a single chart, with each line including up to 24 points.
- -BAR CHARTS: The HP-87 GP Pac will create normal, stacked, and clustered bar charts. Bars may have negative values. Bars may be hatched in several styles of filled in solid colors.
- -<u>PIE CHARTS</u>: Pie charts may be used to graphically illustrate how several individual components relate to their whole. Two pie charts may be plotted side by side for comparison purposes. Each pie may include up to 24 slices, each of which may be hatched or solid filled.

In short, the HP-87 Graphics Presentations Pac helps to make any report or presentation more professional and informative by creating charts which transform numeric data into attractive, understandable graphic information.

Retail Price: \$250.00 Hewlett-Packard product number 00087-13002

SYSTEM REQUIREMENTS				
Mainframe:	HP-86/87			
ROMs:	Plotter ROM			
Memory:	HP 82903A 16K Memory Module			
Peripherals:	ROM Drawer, Plotter, HP-IB Cable			
ADDITIONAL IN	IFORMATION			
	,			

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I.D. Code:

Application Code: 79.32003

Expiration Date:

Product Name:	Mainframe(s):
VisiCalc ® PLUS Application Pac	HP-83/85

### Software Description:

VisiCalcPLUS is a powerful software tool for analysis and solution of complex business and scientific problems. In business, VisiCalcPLUS can become a balance sheet for doing what-if planning. For the engineer, VisiCalcPLUS can simplify the creation of a process model or aid in statistical analysis.

With VisiCalcPLUS, the display screen becomes a window that looks upon a much larger electronic worksheet. The user can use the cursor keys to move or scroll this window in four directions to look at any part of the worksheet.

The worksheet is organized in rows and columns. Rows are designated by numbers, columns by letters; the intersection of each row and column defines an entry position, or cell. Alphabetic titles, numbers, or formulas can be entered in each cell. The formula can contain references to the contents of other cells, so that whenever a cell value is changed, all cells depending on that value are automatically changed. Each time an entry is made, VisiCalcPLUS automatically recalculates all formulas on the worksheet.

The VisiCalc portion of this pac is enhanced by the addition of the PLUS portion of VisiCalcPLUS. This is a group of four BASIC language graphics programs that use data files created within VisiCalc to generate line, bar, and pie charts. One of these programs also tests sets of data for goodness of fit to a linear regression and three other transformed linear curves.

The selected graphics program reads the data in from a tape or disc, allows the user to specify titles and format, and outputs the graph to the CRT or to a plotter such as the HP 7470.

VisiCalc is a registered trademark of VisiCorp.

Retail Price: \$200.00 Hewlett-Packard product number 00085-13042

# SYSTEM REQUIREMENTS Mainframe: HP-83/85 ROMs: HP Plotter/Printer ROM (00085-15002) Memory: HP 82903A 16K Memory Module Peripherals: HP 7470 or HP 7225 Plotter with HP 17601A Personality Module, HP 82937A HP-IB, HP 82936A ROM Drawer, HP 82905B Printer (recommended) **ADDITIONAL INFORMATION**

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Expiration Date:

I.D. Code:

Application Code: 79.32004

**Product Name:** VisiCalc<sup>®</sup> PLUS Application Pac

Mainframe(s): HP-86/87

### Software Description:

VisiCalcPLUS is a powerful software tool for analysis and solution of complex business and scientific problems. In business, VisiCalcPLUS can become a balance sheet for doing what-if planning. For the engineer, VisiCalcPLUS can simplify the creation of a process model or aid in statistical analysis.

With VisiCalcPLUS, the HP-86/87 display screen becomes a window that looks upon a much larger electronic worksheet. The user can use the cursor keys to move or scroll this window in four directions to look at any part of the worksheet. The display background may be either white or black and the user may select between 16 and 24 lines of displayed data.

The worksheet is organized in rows and columns. Rows are designated by numbers, columns by letters; the intersection of each row and column defines an entry position, or cell. Alphabetic titles, numbers, or formulas can be entered in each cell. The formula can contain references to the contents of other cells, so that whenever a cell value is changed, all cells depending on that value are automatically changed. Each time an entry is made, VisiCalcPLUS automatically recalculates all formulas on the worksheet.

The HP-86/87 version of VisiCalc takes full advantage of the HP-87's large memory capacity and 80 column display. The 544K byte memory capacity allows the largest personal computer worksheet in the industry to be created. The VisiCalc portion of this pac is enhanced by the addition of the PLUS portion of VisiCalc PLUS. This is a group of four BASIC language graphics programs that use data files created within VisiCalc to generate line, bar, and pie charts. One of these programs also tests sets of data for goodness of fit to a linear regression and three other transformed linear curves.

00087-13001 Retail Price: \$250.00 Hewlett-Packard product number ......

### SYSTEM REQUIREMENTS

Mainframe: HP-86/87

ROMs: HP Plotter ROM (00087-15002)

Memory: Recommend total of 96K user RAM.

Peripherals: HP 7470 or HP 7225 Plotter with HP 17601A Personality Module,

HP 82937A HP-IB (HP-86 only), HP 82936A ROM Drawer, HP 82905

Printer (recommended)

### **ADDITIONAL INFORMATION**

The selected graphics program reads the data in from a tape or disc, allows the user to specify titles and format, and outputs the graph to the CRT or to a plotter such as the HP 7470.

VisiCalc is a registered trademark of VisiCorp.

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### 8 Communications

- 81 Data Communications
- 82 I/O
- 83 Tele Communications
- 89 Other

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Application Code:

81,12001

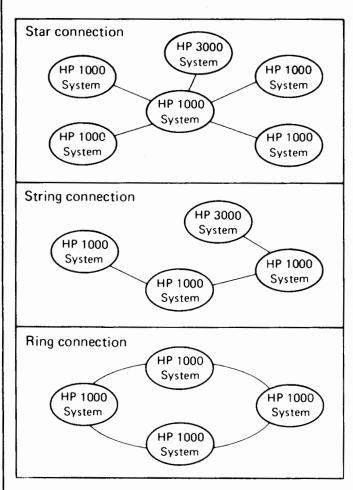
Mainframe(s)
HP 1000
E. F. & L-Series

Program Title

DS/1000-IV Network Software

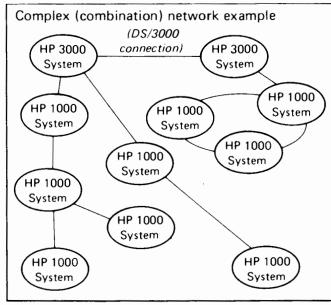
### **Program Description**

Distributed Systems/1000-IV (DS/1000-IV) software provides an integrated set of high-level network facilities and procedures for HP 1000 L/M/E/F-Series Computer Systems. These facilities and procedures support network resource sharing, remote data base access, distributed data file management, communication between application programs, and the coordinated distribution of processor workloads to other HP 1000 Computer Systems in the network and/or to HP 3000 Series II/III/30/33 Systems.



### **Features**

- Complete backward compatibility with 91740A/B DS/1000 nodes so applications software which runs on them may be transported and run in 91750A DS/1000-IV nodes and so that existing DS/1000 nodes can communicate with new DS/1000-IV nodes
- Transparent dynamic message rerouting between HP 1000 systems to bypass a "down" node or communications link
- Transparent Message Accounting which guarantees that each message is definitely received and that it is received only once by the user level task to which it is directed (between HP 1000 systems only)
- Transaction logging to facilitate network traffic analysis and fault isolation
- Generalized DS/1000-IV network architecture
- Network support of all HP 1000 Computer Series (L, M, E, and F) operating under RTE-L, RTE-IVB, and RTE-M (MIII configuration)
- Full network communication with HP 3000 Series II/III/ 30/33 Systems equipped with DS/3000 software, via hardwired and modem links (from HP 1000 M/E/F-Series only)
- Support for new, higher-efficiency microprocessor-based, fully-buffered HDLC and Bisync network interfaces



DS/1000 Network configuration choices

- Network-wide nodal addressing with store-and-forward between HP 1000 systems for maximum configuration flexibility
- Remote HP 1000 system generation and remote program development
- Remote command processing between any DS/1000-IV network nodes and between DS/1000-IV nodes and an HP 3000 System
- Remote access to IMAGE/1000 data bases at HP 1000 Systems
- HP 1000 virtual terminal capability to HP 3000 Series II/III/30/33 System
- Remote I/O mapping enables unit-record I/O to be directed to/from any unit-record device at any HP 1000 System in the network, thereby offering substantial savings in overall network hardware costs

### Memory requirements

For RTE-L based node: The RTE-L operating system and minimum required DS/1000-IV programs use about 44k bytes of memory, leaving about 18k bytes for addition of PTOP, DEXEC, or remote session access capabilities and user's application programs. Because maximum memory supported under RTE-L is 64k bytes, the remote response capabilities supportable at an RTE-L based node are relatively limited. However, the level of capability that is available is generally adequate for a dedicated node that functions mainly as a satellite to one or more RTE-IVB based DS/1000-IV network nodes.

For RTE-IVB based node: The RTE-IVB operating system and minimum required DS/1000-IV programs use about 84k bytes of memory (94k bytes with re-routing and message accounting). Because an RTE-IVB based node will usually support most, if not all, of the optional capabilities of DS/1000-IV, at least 256k bytes of memory, and preferably 384k or 512k bytes, should be provided so that a reasonable number of DS/1000-IV capabilities can reside in their partitions at the same time. This minimizes swapping and assures fastest possible network response. Of course, addition of non-DS capabilities with large memory requirements, such as Pascal/1000 or DATACAP/1000-II, would necessarily require even more memory.

Table 2. 91750A DS/1000-IV System Compatibility

Computers	Systems	Operating Systems	Interfaces	Remote System
2103L 2108M, 2109E, 2111F, 2112M, 2113E & 2117F	2174A/B 2175A/B 2175C/D 2177C/D	92070A RTE-L 92068A RTE-IVB and 92064A RTE-M (Mil or Mill configuration)	12007A & 12044A 12794A & 12825A	Any HP 1000 L/M/E/F-Series System using 91750A soft- ware and appropriate interface*
2108M, 2109E, 2111F, 2112M, 2113E & 2117F	2174A/B 2175A/B 2176C/D 2177C/D	92068A RTE-IVB and 92064A RTE-M (MIII config)	12771A & 12773A NOTE A	HP 1000 M/E/F- Series System using 91740A/B software-firm- ware and appropriate interface*
2108M, 2109E, 2111F, 2112M, 2113E & 2117F	2174A/B 2175A/B 2176C/D 2177C/D	92068A RTE-IVB and 92064A RTE-M (MIII config)	12793A & 12889A	HP 3000 Series II/III/30/33 System and appropriate interface*

Appropriate interface means that interface in remote system must match communication mode and protocol (direct connect or modem and WASP or HDLC) of interface in local system. For appropriate counterpart interfaces, see Figure 3.

NOTE A: 91740A/B/P/R DS/1000 firmware is required with 12771A and/or 12773A interface(s) used in a DS/1000-IV node. With the 12773A Modern interface, a 12620A Breadboard interface used as a privileged interrupt control card is also required.

### ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 5(2142A), 9(2145A), 10(2146A), 40(2176C/D), 45(2177C/D)

Price: \$4,200.00

HP Software Part Number: 91750A

Memory Options: See "Memory Requirements" discussion above.

Peripherals:

Comments:

Contact your local HP Sales Office for additional information



Application Code:

81,12002

Mainframe(s)
HP 1000
E & F-Series

Program Title

RJE/1000 Remote Job Entry Package

### **Program Description**

RJE/1000 is a data communications interface package that equips RTE-IV/IVB, RTE-III, or RTE-II based Hewlett-Packard Model 2108, 2109, 2111, 2112, 2113, or 2117 Computers or HP 1000 Model 30, 41, or 46 Computer Systems for Remote Job Entry (RJE) communication with certain IBM 360/370 Systems via telephone lines and user-furnished modems.

### **Features**

- Emulation of IBM 2780 Data Transmission Terminal
- Remote Job Entry (RJE) for batched-job communication with IBM 360/370 using IBM Bisync protocol
- Autoanswer and autoturnaround
- Line speeds to 9600 bits/sec
- Operation in disc-based RTE-IV/IVB, RTE-III, or RTE-II plus BSM system using 7900, 7905, 7906, 7920, or 7925 disc
- Compatibility with BTAM, TCAM, and RTAM access methods
- Choice of ASCII or EBCDIC line code
- Dial-up or private line communication, either half-duplex or full-duplex
- Choice of transparent or non-transparent mode
- Choice of timeout or indefinite wait (if using dedicated leased lines)
- Configurable for variable or fixed-length records
- Supports horizontal tab and vertical format control functions
- Wide choice of input, list, and punch-stream devices
- Trace utility for assisting resolution of data communications problems

### Functional specifications

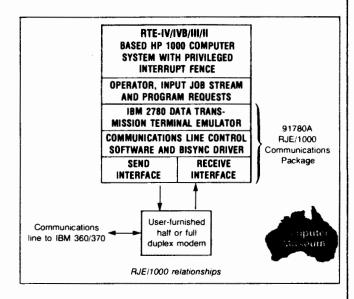
### **Emulation**

RJE/1000 emulates the IBM 2780 Data Transmission Terminal.

### System compatibility

### Local Hewlett-Packard system

RJE/1000 is compatible with 2108, 2109, 2111, 2112, 2113, or 2117 Computers or HP 1000 Model 30, 41, or 46 Computer Systems operating under RTE-IV/IVB, RTE-III, or RTE-II/BSM real-time executive system.



Remote system

RJE/1000 is compatible with BTAM, TCAM, and RTAM access methods used in the remote IBM 360/370 system. RTAM implies support for HASP, RES, JES/2 and JES/3 scheduler software in IBM systems. It is also compatible with another RJE/1000 in a remote Hewlett-Packard system. In addition, RJE/1000 may be compatible with other host systems or other 2780 emulators, but it is specifically NOT WARRANTED to function with any remote system configuration other than those enumerated above.

### Unsupported 2780 features

RJE/1000 does not support these IBM 2780 features:

- Terminal identification.
- Multipoint operation.
- Bell operation

### Connections and modems

RJE/1000 is compatible with the telephone connections and modems listed in Table 1, next page. Regardless of which modem is used, it must meet the following requirements:

- 1. Synchronous operation.
- 2. Timing internal to the modem.
- EIA RS232C or CCITT V.24 compatibility.
- 4. New Sync is not used.
- 5. Reverse channel is not used.
- 6. Unattended answering is optional.
- Alternate voice should be available for voice coordination.
- 8. Full-duplex modems may be used to reduce line turnaround time and improve throughput, but half-duplex is the minimum requirement.

Table 1. Connections Modems, and Data Rates

Connection Via	Modem Type	Maximum Synchronous Data Rate, half or full-duplex
Switched tele- phone (Direct Distance Dialing) Network	Bell 201A Bell 201C Bell 208B HP 37210T Other Non- Bell	2000 bits/sec 2400 bits/sec 4800 bits/sec, half duplex only 4800 bits/sec 4800-9600 bits/sec
Private lines	Bell 201B Bell 201C Bell 208A Bell 209A HP 37210T HP 37220T HP 37230A Other Non- Bell	2400 bits/sec 2400 bits/sec 4800 bits/sec 9600 bits/sec, half, full, or multiplexed† 4800 bits/sec 9600 bits/sec 19200 bits/sec 4800-9600 bits/sec

†Multiplexed modems allow line sharing by terminals as follows:

- 1 terminal at 7200 bps and 1 terminal at 2400 bps
- 2 terminals at 4800 bps or 4 terminals at 2400 bps
- 1 terminal at 4800 bps and 2 terminals at 2400 bps

## System requirements

In BTE-IVIVB environment: Same as 92068A RTE-IVB or 92067A RTE-IV system, but with 12620A interface for privileged interrupt control.

In RTE-III environment: Same as 92060B RTE-III system, but with 12620A interface for privileged interrupt control

In RTE-II plus BSM environment: Same as 92001B RTE-II system, but with at least 64k bytes of memory and 12620A interface for privileged interrupt control.

## Computer I/O channels used

Three, one each for send, receive, and privileged interrupt control.

## ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40(2176C/D), 45(2177C/D)

Price: \$3,150.00

HP Software Part Number: 91780A

**Memory Options:** 

Peripherals:

Comments:



# HEWLETT-PACKARD SOFTWARE SUMMARY

81.22001

Mainframe(s) 9845B, 9835A Program Title

**Asynchronous Terminal Emulator** 

## **Program Description**

The HP 9835/HP 9845 Asynchronous Terminal Emulator package includes three BASIC programs that do the actual emulation:

## Line Mode (LMTERM)

Keyboard input is buffered until a carriage return (EXECUTE or STORE on the HP 9835/HP 9845 keyboard) is pressed. This allows local editing of the line prior to sending it to the host mainframe. Includes local mass storage access, redefinable keyboard, display features, echo on/echo off modes, local/remote modes and a status report of the program. This program is suitable for most applications.

## Key Mode (KMTERM)

Each key is sent to the host mainframe as soon as it is pressed. Similar to a teletype device. This mode includes all the features of the Line Mode program. The Key Mode program will probably be preferred if the host mainframe expects a certain "wait" period between characters.

## Minimal Line Mode (LTMIN)

Provides the same local editing capability as Line Mode but all other additional features have been removed. This has two advantages: 1) Minimal Line Mode uses significantly less memory and 2) it is constructed of well-defined modular subprograms that you can use to solve more specialized problems.

The software package requires that the datacomm link be a full-duplex line; simultaneous data flow in both directions is assumed to be possible. The suggested connection is via the HP98036A Serial I/O Interface Card. The connection can be hardwired or through a modem.

The default conditions of the software are shown below.

Echo ...... Off (will work with mainframes that do echo as well as those that don't)

These default conditions can be changed by using Special Function Keys, escape code sequences or program changes. Baud rates can be changed manually using the rotary switch on the side of the Interface Card.

## **Graphics Capability**

This software feature allows the HP 9845 to respond to control codes that drive certain graphics terminals (i.e. TEK PLOT 10). The HP 9845 will produce a scaled-down version of a plot intended for a graphics terminal with a 1 024 X 780 dot screen.

This software package includes: a program tape cartridge (09835-10044 or 09845-10144, Special Function Key overlay (7120-8012 for 9835 and 7120-7839 for 9845) and a User Instruction manual (09835-10041 for 9835 and 09845-10141 for 9845)

# ORDERING/HARDWARE INFORMATION 9835A Mainframe(s): 9845B Opt. 100 & 150 \$500 Price: \$500. 09835-10040 HP Software Part Number: 09845-10140 Memory Options: minimum minimum

**ROMs:** 98412 I/O

98332A I/O

Opt. 700, 311 Graphics

(req'd if using graphics

capability)

Peripherals: Serial I/O Interface (98036A) required

Serial I/O Interface (98036A) required

Comments:



81.22002

Mainframe(s) 9845B, 9835A

Program Title

High Speed Asynchronous Terminal Emulator

## **Program Description**

This pack enables your HP 9835 or HP 9845 to perform rapid and efficient data communication with asynchronous terminal emulation capability. It contains three BASIC programs:

## Line Mode

This program lets you type an entire line before you end it to the host computer. In this mode you can edit a line and also have type-ahead and line recall capabilities. If the host computer does not accept burst data, or if you want immediate response from the host after a key is depressed, then the character mode program may be better for your application...

## Character Mode

In this program, each character is sent to the computer as you type it and the cursor appears in the upper screen area of the CRT instead of in the keyboard areas as in the Line Mode. However, emulator speed is slower using Character Mode, there is no recall capability and you cannot use many of the editing functions.

## Graphics Mode

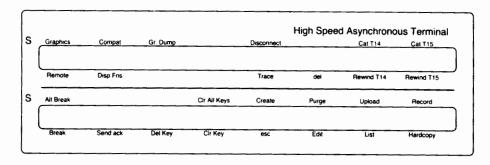
This mode emulates a PLOT-10-compatible terminal. With it, you can create plots, store them on a mass storage medium and then plot them offline later.

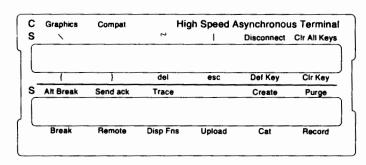
All three programs support ASCII code and operate on full duplex lines. The program can run with hosts that echo characters to terminals (referred to as echoplex) and those that don't.

Two types of connection, or handshaking, are provided in the line and character mode programs to ensure accurate sending and receiving: ENQ/ACK (enquiry/acknowledgment) or DC1/DC3 (transmit on/transmit off). With ENQ/ACK handshaking, the host sends and ENQ character and then waits for the terminal to respond with an ACK character before continuing transmission. This type of handshake is common protocol for the HP1000/3000 systems and is enabled at power-up.

If the DC1/DC3 handshake is enabled, the terminal directs the host to stop transmission by sending DC3 when enough data has been received and then requests a resumption of data transmission with DC1 when the first set of data has been emptied from the inpout buffer. All three modes can operate at baud rates of up to 9 600. At rates above 1 200, it may be necessary to use a handshake, end-of-line delay, or pad character scheme to prevent data overruns. The default baud rate is 300.

This Special Function Key overlay for the 9845B keyboard shows the functions performed by this pack:





This pack consists of a program tape cartridge (09845-10184 or 09835-10184), a Special Function Key Overlay (7120-8757 for the 9845, 7120-8688 for the 9835) and a Terminal Emulator manual (09845-10181 or 09835-10181).

## ORDERING/HARDWARE INFORMATION

Mainframe(s): 9

9845B all configurations

9835A

Price:

**\$**500.

\$500.

**HP Software Part Number:** 

09845-10180

09835-10180

Memory Options: 20

204

201

**ROMs:** Opt. 311 (for graphics)

98337A (for graphics)

Opt. 700 (for graphics)

98317A Basic Datacomm

98417A Basic Datacomm

98332A I/O

Peripherals:

Datacomm Interface (98046B, Opt. 001)

Datacomm Interface (98046B, Opt. 001)

required if using a modem (male DTE).

required if using a modem (male DTE).

Comments:

Minimum memory would be sufficient if graphics terminal emulation is not required.



81.22003

Mainframe(s) 9845B, 9835A/B Program Title

## 2780/3780 RJE Terminal Emulator

## **Program Description**

This pack enables your HP 9835 or HP 9845 Desktop Computer to communicate with a remote computer and other devices that support IBM 2780/3780 Remote-Job-Entry (RJE) data transmission terminals. The remote computer is usually an IBM 360 or 370, but it can also be most other computers that support IBM 2780/3780 terminals.

Additionally, the Emulator can communicate with other 2780/3780-compatible devices for file transfer only. These devices can be:

- 1. an IBM 2780 or 3780
- 2. an HP3000 that is using RJE/3000
- 3. an HP1000 that is using RJE/1000
- 4. another HP 9835 or HP 9845 that is using the Emulator.

The 35/45 RJE Terminal Emulator includes the following features:

- Reader, printer and punch peripherals may be mass storage devices or other I/O devices. Automatic
  device selection by the remote computer is allowed.
- Optional hardcopy of records as they are received or transmitted.
- Emulator operates under the control of either the Special Function Keys and keyboard, or a control file.
- Mass storage files may be manipulated independent of datacomm activity.
- Multiple files may be sent before allowing a receive operation.
- Emulator status can be continuously displayed.
- User-definable handlers for punch, reader and printer devices.
- User-definable start-up defaults.
- Dynamic Emulator configuring.
- Automatic LOGON/LOGOFF message sent at connect/disconnect time.
- A control file capability that allows users to supply commands for unattended operation.
- Editing of the mass storage files including update, store, replace and delete-functions.

The table below presents a comparison of the IBM 2780/3780 terminals with the HP 9835 and HP 9845 with the RJE Terminal Emulator software.

	IBM 2780	IBM 3780	HP 9835A/HP 9845 RJE Terminal Emulator
Line Printer (Lines/minute)	300	425	(Depends on Printer)
Card Reader (Cards/minute)	400	600	Not Supplied
Card Punch (Cards/minute)	355	Optional	Not Supplied
Data Transmission (Baud)	4800	7200	96ÒÔ
Space/Compression	No	Yes	Yes

This pack includes a program tape cartridge (09835-10194 or 09845-10194), a Special Function Key overlay (7120-8689 for the HP 9835, 7120-8758 for the HP 9845) and a User Manual (09845-10191).

## ORDERING/HARDWARE INFORMATION

Mainframe(s):

Price:

**\$500**.

**HP Software Part Number:** 09835-10190

ROMs:

Memory Options: 204

9845B/C all configurations

9835A/B **\$500**.

09845-10190

201

98417A Basic Datacomm 98418A RJE Bisync

98317A Basic Datacomm

98318A RJEBisync

Datacomm Interface (98046B, Opt. 001) Peripherals:

required if using modem (male DTE).

Datacomm Interface (98046B, Opt. 001)

required if using modem (male DTE).

Comments:



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

81.22004

Mainframe(s) HP 9845B

Program Title

Multi-Terminal Manager

## **Program Description**

With Hewlett-Packard's Multi-Terminal Manager software pack, you can use the HP 9845B Desktop Computer to manage up to seven asynchronous terminals with the 9845B's keyboard acting as an eighth terminal.

This utility pack consists of two different programs:

• Character Mode Program — can be used on any asynchronous terminal. In this mode, you can operate only 10 files which must be opened when the program is started.

Block Mode Program — is designed to run specifically on HP's 264X or 2621 terminals which can buffer
a line of text and send it as an entity to the HP 9845B. A major advantage of the block mode program is
that you can assign files at will without stopping the program.

In addition, the pack includes a terminal based text editor which provides an example of how to integrate your own application dependent subroutines with the utility. The EDITOR also provides a convenient means of entering text from a terminal – especially useful for creating and maintaining text files. Two versions of the EDITOR are incorporated into the Multi-Terminal Manager pack – one tailored for the character mode utility and one for the block mode utility.

The Multi-Terminal software package includes:

- One tape cartridge
- User instruction manual

## ORDERING/HARDWARE INFORMATION

Mainframe(s): 9845B, Opt. 150

**Price:** \$500.

HP Software Part Number: 09845-10160

Memory Options: Requires 187K bytes

ROMs: Opt. 312

Opt. 313

Peripherals: Requires asynchronous terminals, 300/600/1200/1800 or 2400 baud.

To run the Block Mode Editor, HP 264X or 2621

Terminals at 2400 baud required.

Also requires flexible or hard disc drives.

Comments: Additional application-related software needed.



# HEWLETT-PACKARD SOFTWARE SUMMARY

Appl	ication	C	ode:

81.22005

Mainframe(s)
9845

Program Title

Distributed Systems 35/45

## **Program Description**

The Distributed Systems (DS) 35/45 in conjunction with the BASIC Datacomm and RJE Synchronous ROMs enables your HP 9845B/C or 9835A to function in a DS network with HP 1000 or 3000 as a remote end node. This BASIC program allows you to access many capabilities available on 1000 and 3000 mainframes equipped with Distributed Systems software.

With DS-45/35, your desktop computer emulates many features typical of a line-mode asynchronous terminal to the HP 3000. When hooked up to the HP 1000, it only executes break mode commands. DS allows you to construct and conveniently transfer files between your desktop computer and the remote mainframe. Procedure files provide unattended operation complete with automatic dialing when public telephone lines are being used.

DS-45/35 file-transfer capabilities enable the transfer of not only ASCII data files, but also non-ASCII desktop computer files such as numeric data files, program files, binary program files,data base files, and other file types. The DS-45/35 permits extensive resource sharing by transferring both secured and unsecured files to the HP 1000 or 3000, where they may be accessed by other desktops.

## DS-45/35 and the System 3000

Distributed Systems 45/35 provides you with a convenient line-mode terminal for an HP 3000 mainframe, and can rapidly and accurately transfer ASCII and non-ASCII files to and from the 3000. File operations include: create file, display file contents, begin file transfer, display 3000 file information, append to file, purge file, abort file transfer, and display 45/35 file information. You can also directly access HP 3000 peripherals by using the appropriate file equations and 3000 file system.

The desktop must be located at the end of the branch extending from the HP 3000. It can, however, access the resources available from any HP 3000 computer in the network except those isolated from the rest of the network by an intermediate HP 1000.

## DS-45/35 and the System 1000

The DS-45/35 emulates a limited console when connected to a 1000 with Distributed Systems software. It can access most of the HP 1000's RTE break commands. Subsystems like FMGR, EDIT, etc. cannot be interactively run.

Permitted file operations include: create file, display file contents, begin file transfer, display HP 1000 file information, overwrite type O file, purge file, abort file transfer, and display system 45/35 file information. Overwriting non-disc files on an HP 1000 enables the desktop direct access to the 1000 peripherals such as line printers, tape drives, etc.

The desktop does not support store and forward capabilities and must be an end node in the network.

In using the DS-45/35 to access other HP computers, we recommend that the direct-connect lines be no more than 50 feet. If the distance between computers is longer, use the limited-distance or long-distance modem pair. When direct connected to the HP 1000, only one desktop is allowed. Up to seven desktops can be direct-connected to the HP 3000.

## Connections and Configurations with HP1000

In order to operate with DS, the HP 1000 must be equipped with the following hardware:

- The HP1000 Computer with Series M, E, or F processor and RTE-IVB System.
- DS1000-IV Distributed Systems software and firmware properly configured for operation with the Programmable Serial Interface(PSI) Card for the HP3000 connection. The High-speed Interface(HSI) Card is not allowed.
- HP12793A Programmable Serial Interface Card with BSC(Bisync) firmware.
- Datacomm Link: A directly connected line OR a switched or leased line with a synchronous modem. Auto-answer capability is recommended for modems used on switched lines.

The HP1000 can support only one Programmable Serial Interface (PSI) to the desktop. Therefore, you can have a total of one direct or one modem link. When using modems, several desktops (one at a time) can communicate with the HP1000 if it is equipped with an automatic answer modem.

## Connecting DS 45/35 to the HP3000

In order to operate with DS, the HP3000 must be equipped with the following hardware:

- An HP3000 with DS3000 Distributed Systems software properly configured into the MPE III Operating System.
- HP3000 SSLC or INP Synchronous Data Communications Hardware.
- Data Communications Link: A directly connected line OR a switched or leased line with a synchronous modem. Auto-answer capability is recommended for modems used on switched lines.

The HP3000 can support up to 7 SSLC's or 7 INP's. Therefore, you can have up to 7 desktops using any combination of direct or modem connections.

## ORDERING/HARDWARE INFORMATION

Mainframe(s):

9835A Opt.202

9845B/C Opt.204

Price:

\$500

\$500

HP Software Part Number: 0

09835-10210

09845-10210

**Memory Options:** 

**ROMs:** 98317A

98412A

98318A 98332A 98417A 98418A

Peripherals:

98046B Stnd.(12793A, 30055A, or

98046B (12793A, 30055A,

30010A Software)

or 30010A)

98046B, Opt.001 (12793A, 30055A,

98046B, Opt.001 (12793A,

30010 w/ modem link)

30055A, 30010)

Comments:

Optional Autodial - 98036A, Opt.302 (9835A), Opt.402 (9845B/C)

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

81.22006

Mainframe(s) 9826A/9836A

Program Title

Terminal Emulator for the 9826/9836

## **Program Description**

This package enables your HP 9826 or HP 9836 to emulate an asynchronous terminal. It has the following features:

**Line Mode** – An entire line may be typed before it is sent to the host computer.

**Character Mode** – Each character is sent to the host computer as it is typed.

**File Transfer** – Provides easy up-loading or down-loading of ASCII data files to or from the central host.

**Configuration** — A menu-driven configuration section allows you to configure the datacomm interface quickly and efficiently:

Speed Parity External, 50 baud - 19.2K baud

Odd, Even, None, Always1, Always0

Bits/characters

5 – 8 bits/character

Number of stop bits Modem handshake 0, 1, 1.5, or 2 Full-duplex, none

Software handshake

ENQ/ACK, DC1/DC3 Host or Terminal

Echo

Echo ON or OFF

Prompt sequence

Any two ASCII characters

**Escape Code Programming** — Supports a subset of HP 2622 terminal control and cursor addressing escape code sequences. Graphics and block mode are not supported.

# ORDERING/HARDWARE INFORMATION

Mainframe(s): \$200

9826A, 9836A all language systems

Price:

HP Software Part Number:

09836-10180

**Memory Options:** 

256K bytes RAM minimum

Not orderable until 1 August 1982.

**ROMs:** None required

Peripherals:

All HP-IB printers

13265A 300 baud modem (U.S. &

All RS-232 printers compatible with the

98626A or 98628A Interface.

13266A Current Loop Converter

Canada only)

**Comments:** Requires 98628A Datacomm Interface.

# HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

81.22007

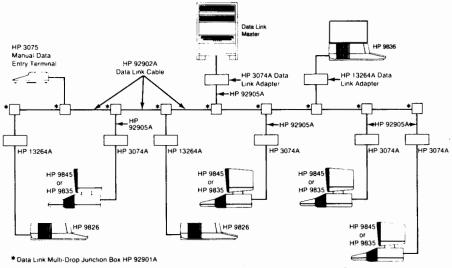
Mainframe(s) 9835/9845

Program Title

DSN/Data Link Software for the 9835/9845

## **Program Description**

This software allows the HP 9845 or HP 9835 to act as a slave device on the HP Data Link. The HP 9835 or HP 9845 can operate in one of two modes. First, as a terminal to the HP 1000 or second, as computer-aided test workstation communicating with an HP 1000 using cooperating programs.\* The network topology for a typical single-site installation is drawn below:



Note: HP 92905A Interconnecting Cable is required for connecting the HP 3074A to the Data Link. The HP 13264A (used with the HP 9836 computer) includes the cable to the Data Link.

13264A (used with the MP 9836 computer) includes the cable to the Data Link.

There are three modules contained in this pack which have the following functions:

**Data Link Binary** — Enables the 98046B Datacomm Interface to "speak" the Data Link Line protocol. **DSN/DL Terminal Emulator** — Allows the HP 9835 or HP 9845 to act as a multipoint terminal to the HP 1000.

**STORE Line Binary** – Allows a BASIC line of code to be downloaded directly into the HP 9835 or HP 9845's memory.

<sup>\*</sup> Cooperating programs refers to a set of programs – a BASIC program on the HP 9835 or HP 9845 which communicates with a FORTRAN, Pascal or assembly language program on the HP 1000.

## ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 9845B/C

HP 9835

Price:

\$500

\$500

HP Software Part Number:

09845-10240

09835-10240

Memory Options:

Opt. 201 (128K bytes) only if the

Opt. 204 (187, 146 bytes) only if the

terminal emulator is used.

terminal emulator is used.

ROMs: 98417A BASIC Datacomm ROM

98317A BASIC Datacomm ROM

Peripherals:

98046B Opt. 001 Datacomm Interface

3074A Data Link Adapter

98046B Opt. 001 Datacomm Interface

3074A Data Link Adapter

Comments:

Not supported to the HP 3000.



HP USE ONLY

I.D. Code:

Application Code: 81.32001

Expiration Date:

Product Name:	Mainframe(s):
DATA COMMUNICATIONS PAC	Series 80

Software Description:

Allows Series 80 Personal Computers to communicate asynchronously with larger host computers or commercially available timesharing services. Baud rates of 50 - 9600 are supported. User must acquire external Modem/Acoustic coupler or direct (Hard wired) link to host as well as an HP - 82939A Serial Interface for use with this software. Allows flexibility of configuration through support of various Baudrates, Parities, Handshakes etc.

Retail Price: \$200.00 Hewlett-Packard product number 00085-13044

# SYSTEM REQUIREMENTS Mainframe: HP - 85, 86, 87

ROMs: I/O ROM

Memory: 32K - HP - 85 64K - HP-87A

Peripherals: 82939 Serial Interface

## **ADDITIONAL INFORMATION**

Disclaimer: HP MAKES NO EXPRESS OR IMPLIED WARRANTY WITH REGARD TO THE PROGRAM MATERIAL OFFERED OR ITS MERCHANTABILITY
OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE PROGRAM MATERIAL IS MADE AVAILABLE SOLELY ON AN "AS IS" BASIS,
AND THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH THE USER. SHOULD THE PROGRAM MATERIAL PROVE
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CONSEQUENTIAL DAMAGES. HP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH
OR ARISING OUT OF THE FURNISHING, USE OR PERFORMANCE OF THE PROGRAM MATERIAL.

## HEWLETT-PACKARD SOFTWARE SUMMARY

Application Code:

81.42001

Mainframe(s) HP 9000 Model 20 **Program Title** 

**BASIC Asynchronous Terminal Emulator** 

## **Program Description**

The BASIC Asynchronous Terminal Emulator offers a simple, convenient method to link the HP 9000 Model 20 to a host computer. This program runs under the BASIC Language System; a similar program is available for HP 9000 systems running the HP-UX Operating System.

The program provides an emulation of a simple asynchronous ASCII terminal. It features both character and line modes of operation. In character mode, characters are sent to the remote host as the keys are pressed. In line mode, characters are buffered by the HP 9000 and sent as a line to the host when the Return key is pressed.

The emulator supports file transfers between the HP 9000 and a host. All configuration options can be set locally via a menu of softkeys invoked by the user. The program is fully documented, thus allowing the user to easily change default parameter values or even modify the program code if desired. The emulator supports both hardwired and full duplex modem links to the host. Half duplex modems are not supported. Because the HP 9000 BASIC Language System features multi-programming, it is possible to run the emulator and other programs simultaneously.

## **Configuration Options**

Modes:

Character or line

Speeds:

50, 75, 110, 134.5, 150, 300, 600, 900, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 19200

bits/sec.

Parity:

None, odd, even, 1, 0

Echo:

On, off

Links: Character Code: Full duplex modem, hardwired ASCII, 8-bit extended ASCII None, ENQ/ACK, DC1/DC3

Handshake:

# ORDERING/HARDWARE INFORMATION Mainframe(s): HP 9000 Model 20 (BASIC Language System only)

Price: \$505 ("A" product), \$250 ("R & M" product).

HP Software Part Number: HP 97056A/R/M, Software Distribution Media Opt. 042

(supplied only on 5 1/4" Flexible Disc)

At least 1 Mbyte internal memory required. Memory Requirements:

> Requires the Asynchronous Serial Interface Card (HP 27128A). Peripherals:

Comments:

## **HEWLETT-PACKARD SOFTWARE SUMMARY**

Application Code:

81.42002

Mainframe(s) HP 9000 Models 20,30&40 Program Title

**HP-UX Asynchronous Terminal Emulator** 

## **Program Description**

The HP-UX Asynchronous Terminal Emulator package offers a simple, convenient method to link the HP 9000 to other HP-UX systems, System III UNIX\* systems and remote host computers. This software runs under the HP-UX Operating System; a similar program is available for use with the HP 9000 Model 20 running the BASIC Language System. The software includes four commands which are accessible via the HP-UX shell: aterm, cu, uucp and uux.

Aterm is a Hewlett-Packard developed program that allows an HP 9000 to look like a normal asynchronous terminal to a remote host computer. The emulator will function with the integrated keyboard and display on the HP 9000 Model 20 as well as with user terminals. The emulator features both line and character modes of operation. In character mode, characters are sent to the remote host as they are entered from the terminal keyboard. In line mode, the HP 9000 buffers characters and sends them as a group to the host when the Return key is pressed.

The emulator also supports file transfers between the HP 9000 and the host. Configuration options can be set at the time the emulator is invoked from the shell by specifying the name of a file containing configuration information. While running aterm, it is possible to enter the shell by typing a shell escape character. This permits the user to initiate a file transfer and then begin work on another task. Aterm can also be invoked and controlled automatically through procedure files.

## aterm Configuration Options

Modes:

Character, line

Speeds:

50, 75, 110, 134.5, 150, 300, 600, 900, 1200, 1800, 2400, 3600, 4800, 7200, 9600 and 19200

Parity:

None, odd, even, 1 and 0

Echo:

On, off

Links:

Full duplex modem, hardwired

ASCII (also supports HP local language terminals)

Character Code: Handshake:

None, ENQ/ACK, DC1/DC3

Cu, uucp and uux are System III UNIX commands that are supported by HP-UX. Cu offers similar features to aterm but they are tailored for communications with other UNIX systems. Uucp provides file copy capability between UNIX systems and uux provides a means to initiate programs on a remote UNIX computer. Uucp and uux both require the remote UNIX computer to have uucp and uux installed under HP-UX or Bell System III UNIX.

<sup>\*</sup> UNIX is a registered trademark of Bell Laboratories, Inc.

	ORDERING/HARDWARE INFORMATION	
Mainframe(s): Price:	HP 9000 Models 20, 30 and 40 \$505 ("A" product), \$250 ("R & M" product)	

HP Software Part Number: 97076A/R/M Opt. 022 (software provided on ¼" cartridge tape)

or Opt. 042 (software provided in 5 1/4" Flexible Disc)

Memory Requirements: Software requires 1 Mbyte memory, HP-UX Operating System

and Asynchronous Serial Interface Card (HP 27128A)

Peripherals:

Comments:



Application Code:

82.12001

Mainframe(s) HP 1000 E & F-Series Program Title

Multipoint Terminal Subsystem Software Package

## **Program Description**

The 91730A is a software support package for multipoint terminal communication between HP 2645A, 2648A, 2649B, and/or 2649C display terminals and an HP 1000 Computer System, using the HP 12790A Multipoint Terminal interface. The 91730A software also supports HP 3075A and 3076A Data Capture Terminals and HP 3077A Time Reporting Terminals, either on their own multipoint line or on the same multipoint line as 264x multipoint display terminals.

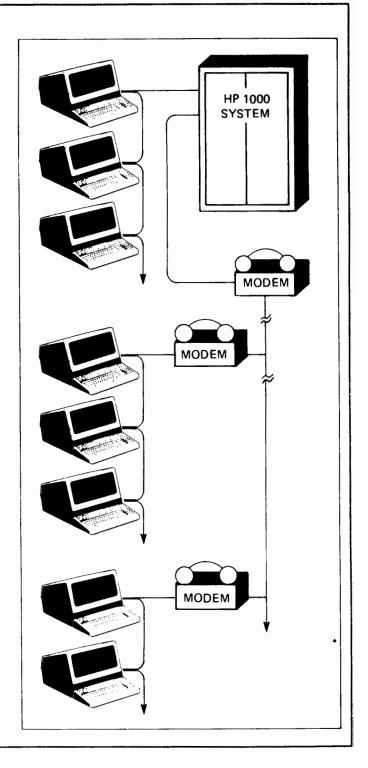
## **Features**

- Supports single I/O channel communication with multiple display terminals and/or data capture terminals on a single communications line
- Program development and/or application program execution at multipoint terminals on RTE-IV/IVB based systems
- Application program execution on RTE-MIII based systems
- Computer-interface block transfers up to 1000 characters long at DCPC (direct memory access) rates
- Support for up to eight 12790A Multipoint terminal interfaces
- Multipoint master application program capability
- · Multipoint network status display program
- "Who Are You" command identification of multi-point terminals
- Auto acknowledgement of data entry
- Group and line message broadcast capability
- Intelligent polling algorithm
- System level exerciser program
- Power fail restart subroutine
- Supports communication with Minicartridges and auxiliary printers on multipoint display terminals and multifunction readers and printers on data capture terminals

## Functional description

## Data capture terminals on multipoint

HP 3075A and 3076A Data Capture Terminals and HP 3077A Time Reporting Terminals are application-specific units that operate in the multipoint communications environment under the 92080A DATACAP/1000 applications software or user-written applications software. For more information about their capabilities, see the 92080A data sheet in the HP 1000 Software Technical Data book and the Data capture peripherals section in the HP 1000 Peripherals Data book.



## Multipoint terminal usage

User-written application programs access multipoint terminals by their Logical Unit (LU) number. Reading from and writing to terminals is supported from both FORTRAN READ WRITE statements and RTE EXEC calls. Each multipoint terminal can be running under the control of its own unique application program for read and write only. Therefore, a single communications line and computer I/O channel can be shared and effectively utilized. Multipoint software driver DVR07 queries the status of all terminals in sequence such that: (1) Pending Read, Write, and Control requests to a terminal can be serviced, and (2) an enabled terminal can be "routinely polled" and can thereby get RTE system attention or can schedule a multipoint master application program. This querying process is transparent to the user's application program. Users at multipoint terminals can develop new application programs, each utilizing a copy of the RTE File Manager, Editor, FORTRAN IV compiler, RTE Assembler, or BASIC/1000D interpreter, in the RTE-IV/ IVB system.

## Number of terminals per multipoint line

Normally, up to 32 terminals can be connected to the 12790A interface via a single multipoint line. The following three important factors determine the number of terminals which can be connected:

1. The number of terminals that can be physically connected depends upon the transmission mode. Asynchronously, up to 32 terminals can be physically connected; the distance between any two terminals can be 609 metres (2000 ft), provided that the total line length does not exceed 4876 metres (16000 ft), regardless of transmission speed up to a maximum of 9600 bps. For synchronous operation, the maximum distance between any two terminals is also 609 metres (2000 ft) and maximum total line length is also 4876 metres (16000 ft), but the number of terminals per line depends upon the average distance between terminals and line speed, as summarized in Table 1.

- The maximum number of logically connectable terminals may be constrained by the logical unit number of capacity of the RTE operating system in which the 12790A and its supporting 91730A software are operated.
- 3. Finally, the number of terminals that can be realistically supported depends upon the amount of text character I/O generated by each terminal on the line, the length of those text blocks, the speed of the line itself, and other user-dependent requirements, such as response time.

Table 1 Average line lengths between multipoint terminals on a synchronous line

Terminals	Average line length versus line speeds of:		
per line	2400 bps   4800 bps   9600 bps		
4	609m (2000 ft)	609m (2000 ft)	609m (2000 ft)
8	609m (2000 ft)	609m (2000 ft)	365m (1200 ft)
16	609m (2000 ft)	365m (1200 ft)	146m (480 ft)
32	365m (1200 ft)	146m (480 ft)	36.5m (120 ft)

## Minimum system requirements

Same as RTE-IV/IVB system or RTE-MIII (multi-user) configuration of RTE-M system plus an HP 12790A Multipoint terminal interface and one or more 2645A, 2648A, 2649B, and/or 2649C Display terminals configured to be compatible with the 12790A interface (see 12790A data sheet for more information). One or more HP 3075A, 3076A, and/or 3077A Terminals are also usable with the additional support in RTE-IVB of the 92080A DATACAP/1000 software.

## Approximate memory requirements

Multipoint driver DVR07: 2500 bytes
Terminal peripheral subroutine: 850 bytes
Power fail restart subroutine: 120 bytes\*
System-level exerciser program: 4200 bytes\*

System status program: 2460 bytes\*

\*These subroutines and programs can be placed in the resident library or appended to a user's application program.

## ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40(2176C/D), 45(2177C/D)

Price: \$265.00

HP Software Part Number: 91730A

Memory Options: See "Approximate Memory Requirements" discussion above.

Peripherals:

Comments:



Application Code:

82.12002

Mainframe(s)
HP 1000
E & F-Series

Program Title

Asynchronous Multiplexer Subsystem Software Package

## Program Description

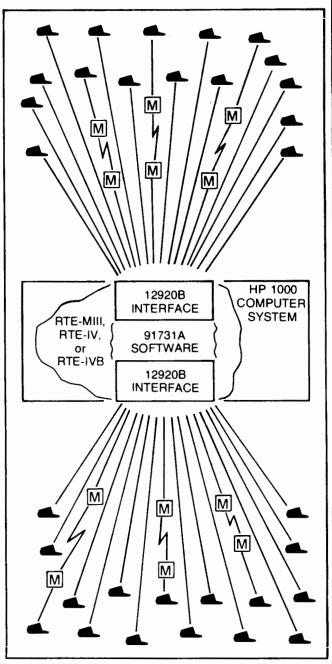
The 91731A is a software support package for multiplexed terminal communication between an HP 1000 Computer System operating under RTE-MIII or RTE-IV/IVB and Hewlett-Packard CRT Display and printing terminals, using the 12920B 16-channel Asynchronous Multiplexer interface.

## **Features**

- Supports up to two 12920B multiplexer interfaces, up to 16 channels per 12920B
- Program development and/or application program execution on RTE-IV/IVB systems
- Application program execution on RTE-MIII systems
- Support for 2621A/P, 2631A/B, 2635A/B, 2640B, 2645A, 2648A, 2649B, and 2649C terminals and Bell type 103A2 and 212A Data Sets and Vadic VA3400 modems
- Block mode data transfer capability
- · Hardwired or full-duplex modem communication support
- Support for 2645A/48A/49B/49C Mini cartridge tape units and/or auxiliary printers
- Individually programmable channel characteristics
- Split speed operation with 264xA/B terminals
- · Defined subsystem performance characteristics

## Functional description

The 91731A multiplexer software supports up to 32 HP terminals asynchronously, at speeds up to 2400 bps. The software is designed to provide great flexibility in configuring a terminal network on an HP 1000 Computer System.



HP 91731A Asynchronous Multiplexer Subsystem Software supports up to two HP 12920B Asynchronous Multiplexer Interfaces, up to 16 terminals per interface, either hardwire-connected or modem M connected.

## Compatibility

Operating system: 92064A RTE-M system (RTE-MIII configuration requiring at least 128k bytes of memory) for application program execution and 92067A RTE-IV or 92068A RTE-IVB system for both application program execution and program preparation.

Hardware: 12920B Asynchronous Multiplexer Interface and cables, 12620A privileged interrupt fence, and any of the following Hewlett-Packard terminals:

TERMINAL	CABLE	RECOMMENDED TERMINAL STRAPS
2621A Interactive Terminal	13222N	bcgHxz Etx
2621P Interactive Terminal	13222N	bcgHxz Etx
2631A+040 Printer	•	<del>-</del>
2631B Printer	•	<del></del>
2635A/B Printing Terminal	•	_
2640B CRT Display Terminal	13232A	A,B,E-H and J-Z
2645A Display Station	13232A	closed, C and D as
2648A Graphics Terminal	13232A	desired
2649B OEM Block or character mode terminal	13232A	
2649C OEM Graphics terminal	13232A	

<sup>\*</sup>Cable for 2631A +040, 2631B or 2635A/B is supplied with the terminal. NOTE: Data cannot be transferred directly from the system to the printer of the 2621P. Data must first be written to the 2621P display, then dumped to the printer.

## Minimum system requirements

Minimum system requirements are the same as for the RTE-IV/IVB system or the RTE-MIII (mapped, multi-user configuration of RTE-M) system plus a 12920B Asynchronous Multiplexer Interface, cables, and connector panel, a 12620A privileged interrupt fence, a 12539C Time Base Generator, and one or more of the Hewlett-Packard terminals listed in the compatibility section.

## Approximate memory requirements by system configuration

comiguration		
	Up to 16 Ports (1 x 12920B)	Up to 32 Ports (2 x 12920B)
Character mode only:	3820 bytes	4040 bytes
Block or Character Mode Display only:	5920 bytes	6500 bytes
Block or Character Mode with Mini cartridge and Auxiliary Printer Support:	6920 bytes	7500 bytes
Additional EQT table storage per configured channel:	52 bytes	52 bytes

## ORDERING/HARDWARE INFORMATION

Mainframe(s): HP 1000 Models 40(2176C/D), 45(2177C/D)

Price: \$265.00 HP Software Part Number: 91731A

Memory Options: See "Approximate Memory Requirements" discussion above.

Peripherals:

Comments:

## 9 Miscellaneous

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		·

## **Software Supplier Product Summary**

HP USE ONLY

I.D. Code:

Application Code: 90.21001

**Expiration Date:** 

Product Name:

Mainframe(s):

ADVENTURE - - - - the original by CROWTHER & WOODS

9836

9826

9835

9845B

9845C

PRODUCT DESCRIPTION: (please begin with a product abstract, then include basic product information, user-specific details, major features and benefits, etc.)

"Somewhere nearby is colossal cave, where others have found fortunes in treasure and gold, though it is rumored that some who enter are never seen again. Magic is said to work in the cave. I will be your eyes and hands. Direct me with commands of 1 or 2 words."

So begins perhaps the most famous and most popular computer game of all It was originally written at the artifical intelligence laboratories at MIT and Stanford. This is a BASIC translation of the FORTRAN version of the original ADVENTURE. The data files which required continuous disk access in the original are now all kept in the computer memory. You may suspend your ADVENTURE at any time, and the state of the game will be automatically saved for you so that you may resume exploring colossal cave at your convenience.

Neither the BASIC code nor the data files have any security measures imposed, so in addition to the joys of playing the game, you can learn much about programming interactive software by examining the program itself. (You can also cheat if you get desperate!)

Hints for playing ADVENTURE:

Pay close attention to clues in seemingly unimportant words or phrasings.

Draw a map on paper of colossal cave as you explore.

DON'T PANIC when dangerous things start to happen.

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(303) 484-5296

9-5 Weekdays (MST)

## SYSTEM REQUIREMENTS Computer Model: 9845 B/C Peripherals: None 9836/9826 9836/9826 9835 I-O ROM 9845/9835 Memory: 187 K bytes 170 K bytes Operating System: BASIC 2.0 Other Software: **CUSTOMER SUPPORT** Geographic Area Supported: Europe (all) Far East of the last of the l ₩ Worldwide □ Canada □ Europe (all) ☐ Far East (all) □ U.S. (all regions) □ Mexico ☐ East☐ South☐ Midwest☐ □ East ☐ South Africa ☐ Australia/N.Z. Support Services Available: phone-in support remote dial-in ☐ mail-in support □ on-site systems engineers □ program modification □ on-site consulting Additional Support Information and Pricing: **CUSTOMER TRAINING/DOCUMENTATION** Price: Training Available: Price: Documentation Available: Instructions contained within program (English). Documentation Available in other languages: NUMBER OF INSTALLATIONS: **DATE OF FIRST INSTALLATION:** 3/1/82 ADDITIONAL INFORMATION If you would like this program supplied free with your order for the Automated Office Pac 1 or W O R D W I S E 2, you must so indicate on your order. It is NOT available free with WORDWISE, only with WORDWISE 2.

## RESPONSIBILITIES STATEMENT

This software was developed by an independent software supplier for operation on HP equipment. The supplier is solely responsible for its software and support services. HP is not the manufacturer or co-developer of this software and makes no endorsement, representation or warranty, express or implied, with respect to the supplier, its products or its services.



# HEWLETT-PACKARD SOFTWARE SUMMARY

Application	Code:

90.22002

Mainframe(s) 9845B/C

Program Title

Computer Games Library

## **Program Description**

This collection of computer games will provide you with hours of entertainment plus an amusing method of learning more about your desktop computer. It includes a variety of traditional computer games plus some games you may not have seen before. This collection offers both the beginning user and the advanced programmer mental challenge and amusement.

The programs in this package have been deliberately designed in different styles so that a beginning programmer can learn how to use different display methods, the soft keys and graphics. You play blackjack, Star Trek and Race by pressing the appropriate special function keys. Gomoko and Life involve entering information directly on the display screen. Biorhythm and Calender generate the appropriate charts after you answer some simple questions. You can play most of the games in this package by just answering the computer's questions.

In addition to the game programs, the package includes a "menu" program which displays the number and name of all the games. The following games are included in the package:

Gomoku

Lander

Race Hangman Life

Hangman Wumpus Star Trek Hangman

Calender

Birthday Plot

King

Biorhythm

Nim

Ski

Blackjack

Life

**GOMOKU** - This old Japanese game matches you against the computer in a more sophisticated version of tick-tack-toe. The object of the game is to occupy five adjacent points in a straight line, either horizontally, vertically or diagonally.

**BLACKJACK** - In this computer version of blackjack, the computer functions as the dealer. It also keeps track of all the finances and even extends "credit." The game is played using Casino blackjack rules.

**RACE** - This exciting car racing game allows you to be the driver in a race against the clock. The object is to get the fastest time while still keeping the car on the track.

**HANGMAN** - You must guess the word before you get "hung" in this computerized version of Hangman. If you guess a letter that is in the word, that letter(s) goes on the screen in the appropriate place(s). If the letter guessed is not in the word, another part of the body appears in the noose. If the whole body is formed before you correctly guess the word, then you have lost the game.

**LANDER** - This game simulates the landing of a rocket on the planet of your choice. You can increase or decrease throttle, give it full or half power, hover or turn the power off. The thermal printer will then tell you if you have crashed or landed successfully.

LIFE - Life is a game of births, deaths and survival. You put a pattern of cells on the screen and then watch as each generation produces births and deaths according to the number of cells surrounding it.

**STAR TREK** - This version of the popular Star Trek game makes you the pilot of the Starship Enterprise in a battle to kill all the Klingons before the time runs out.

**WUMPUS** - In this hunting game you have to hunt the wumpus and kill it before it eats you. Your search takes place in a twenty-cavern cave system which may have other traps in it like a super-bat or a bottomless pit.

**CALENDER** - This program prints a calender for the year of your choice on the thermal printer.

**BIRTHDAY PLOT** - This program supplies you with a birthday plot based on your or anyone else's date of birth. **KING** - This economic simulation puts you in charge of a small country where you must feed your people, sell land to industry, and fight pollution. You must survive and keep as many people happy as you can during your eight year term.

**SKI** - You are in a randomly laid out race course and must ski through all the gates competing for the best time. NIM-This classic computer game pits you against the computer in a match to see who takes the last star from several piles of them.

BIORHYTHM - This program	m plots the sensitivity, physical, and cognitive cycles for an individual during any month
based on that person's date Package includes:	e of birth.
-one program tape -user's instruction manua	al
200, 0 1101, 200, 011	
	ORDERING/HARDWARE INFORMATION
Mainframe(s):	9845B/C Opt. 150
Price: HP Software Part Number:	\$100 09845-10110
Memory Options:	09043-10110
ROMs:	
Peripherals:	
Comments:	
Comments.	Contact your local HP Sales Office for additional information



HP USE ONLY

I.D. Code:

Application Code: 90.32001

Expiration Date:

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BASIC Training Pac

Mainframe(s): HP~83/85

## Software Description:

The BASIC Training Pac includes a tape, disc, instruction manual and a supplement containing a dictionary of BASIC terms and a HELP section. The software features a flexible, self-paced, self-teaching approach with a strong emphasis on learning by doing. The comprehensive tutorial manual emphasizes hands-on familiarity with the HP-83/85 and a step-by-step workbook approach teaches machine operation and features. The software pac also demonstrates the concept of a computer program, programming language, vocabulary and syntax.

Some of the topics covered are: writing a BASIC program; controlling program execution; programming calculations and outputs; planning programs and flowcharts and programming the computer to make decisions. The user is shown keys to press and the resulting CRT displays that he should see. Conversational prompts, explanations and instructions help the user to understand what is happening, step-by-step.

The BASIC Training Pac is also a friendly guide to the HP-83/85 computer keyboard operation and BASIC language. It is a self-teaching course that is more slowly paced than the BASIC Programming Guide in the Series 80 owner's handbook and one which can be effectively studied for an hour or so at a time.

Retail Price: \$95.00 Hewlett-Packard product number 00085-13002

SYSTEM REQUIREMENTS	
Mainframe: HP-83/85	
ROMs:	
Memory:	
Peripherals:	
ADDITIONAL INFORMATION	

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## HP USE ONLY

I.D. Code:

Application Code: 90.32002

Expiration Date:

Product Name:	Mainframe(s):
BASIC Training Pac	HP-86/87

## Software Description:

Retail Price: \$95.00

The BASIC Training Pac includes a disc, instruction manual and a supplement containing a dictionary of BASIC terms and a HELP section. The software features a flexible, self-paced, self-teaching approach with a strong emphasis on learning by doing. The comprehensive tutorial manual emphasizes hands-on familiarity with the HP-86/87 and a step-by-step workbook approach teaches machine operation and features. The software pac also demonstrates the concept of a computer program, programming language, vocabulary and syntax.

Some of the topics covered are: writing BASIC program; controlling program execution; programming calculations and outputs; planning programs and flowcharts and programming the computer to make decisions. The user is shown keys to press and the resulting CRT displays that he should see. Conversational prompts, explanations and instructions help the user to understand what is happening, step-by-step.

The BASIC Training Pac is also a friendly guide to the HP-86/87 computer keyboard operation and BASIC language. It is a self-teaching course that is more slowly paced than the BASIC Programming Guide in the Series 80 owner's handbook and one which can be effectively studied for an hour or so at a time.

The BASIC Training Pac for the HP-86/87 is based on the HP-83/85 BASIC Training Pac, and takes advantage of the 80-column display size available on the HP-86/87 personal computers.

Hewlett-Packard product number \_\_\_\_00087-13004

SYSTEM REQUIREMENTS
Mainframe: HP-86/87
ROMs:
Memory:
Peripherals: 82901M/82902M/9130A Disc Drive, 82905B Printer
ADDITIONAL INFORMATION

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## HP USE ONLY

I.D. Code:

Application Code: 90.32003

Expiration Date:

Product Name:

Games Application Pac



Mainframe(s):

Series 80

## Software Description:

The 19 programs of the Games Pac are designed primarily to provide fun. Included are card games, board games, dynamic action games, word games, and pattern generation programs. Some of the programs included in the Games Pac are:

-Blackjack - the game of 21, designed to be played by as many as 6 players.

-Slot Machine - A graphical presentation of the familiar one-armed bandit.

-Poker Solitaire - where the computer plays the same cards as you.
Good strategy game.

-Sea Skirmish - a video game for one or two players with the object to sink the ship!

-Race Track - played on a randomly generated track and up to 4 players can race.

<u>-Hangman</u> - the familiar word guessing game. Try to guess one of the computer's words or a word someone else has entered.

-Maze Generator - generates random mazes to solve.

<u>-Cribbage</u> - an electronic version of the English game which pits you against the computer. The characteristic cribbage board for scoring is used on the graphics screen.

-Reversi - a game developed originally in England involving complex strategies.

<u>-Race</u> - a car racing game in which you, the driver, try to get the fastest time while keeping your car on the track.

 $-{\rm Nim}$  - a classic computer game in which you compete against the computer to see who takes the last star from several piles.

<u>-Birthday Plot</u> - this program will design your very own birthday plot based on the date of your birth.

NOTE: HP-86/87 software offers larger display graphics.

Retail Price: \$95.00 Hewlett-Packard product number 00085-13010

SYSTEM REQ	UIREMENTS
Mainframe:	HP-83/85/86/87
ROMs:	
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Memory:	
Peripherals:	
ADDITIONAL	INFORMATION

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## **HP USE ONLY**

I.D. Code:

Application Code: 90.32004

**Expiration Date:** 

ĺ	Product Name:	Mainframe(s):
	GAMES II APPLICATION PAC	HP-83/85

## Software Description:

The 12 programs of the Games II Pac are a set of action games which are heavily dependent on CRT graphics and the usage of the special function keys. The programs included in the Games II Pac are:

 $\overline{\text{FATCAT}}$  - You control the mouse and eat all the cheese before the cat catches you.

TANK - You try to knock out a set of targets while under fire.

ASTEROIDS - You try to destroy enemy spacecraft with missiles.

RATPAK - Try to exterminate rabid rats that are constantly after you.

DODGE - An electronic dodge game while moving through a maze.

BULLPEN - Move blocks around to pen in the bulls before they get you.

MOON LANDER - Simulates the landing of a lunar lander on a random terrain.

SPACE WARS - As commander of a spaceship, your mission is to stop an enemy invasion.

BARRAGE - You must fend off the attacking aliens.

BATS - Avoid swooping bats and knock them out.

 $\overline{\text{GNOME}}$  - A treasure seeking game of adventure.

GOLFER - A graphic simulation of a nine-hole golf course.

Retail Price: \$95.00	Hewlett-Packard product number00085-13057
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SYSTEM REQUIREMENTS		
Mainframe: HP-83/85		
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ROMs:		
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Memory:		
Peripherals:		
ADDITIONAL INFORMATION	 	 *
ADDITIONAL IN ORIGINATION		
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