C S L / 1 0 0 0

PROGRAM LIBRARY
OF USER-CONTRIBUTED SOFTWARE
FOR HP1000 SYSTEMS

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RELEASE TAPE 2533

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N O T I C E

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G E N E R A L I N T R O D U C T I O N

CSL/1000 is the program library of user software for the HP 1000 computer systems. This is a collection of software contributed by users of HP 1000 systems.

Many of the programs contributed to the library are general usage programs, others are oriented to a particular purpose. These contributions provide a good source of problem-solving tools. They may be used directly in an application, or they may give examples of problem-solving methods.

The application programs in the library are supplemented by a large number of system programming utilities, as well as by a few demonstrations and games.

The success of the contributed library rests on two factors:

(1) The quality of the contributions, and
(2) The efficient operation of the library itself.

(1) The quality of a contribution is in the hands of the contributor. Complete testing, good documentation, and general carefulness by the user will increase the value and usefulness of a contribution.

(2) The efficient operation of the library invloves two major responsibilities:

Maintenance - Accepting new contributions, updating the library with revisions to existing contributions, and maintaining a catalog.

Distribution - Accepting orders, maintaining subscriptions, and duplicating & distributing the library, the catalog, and periodic releases.

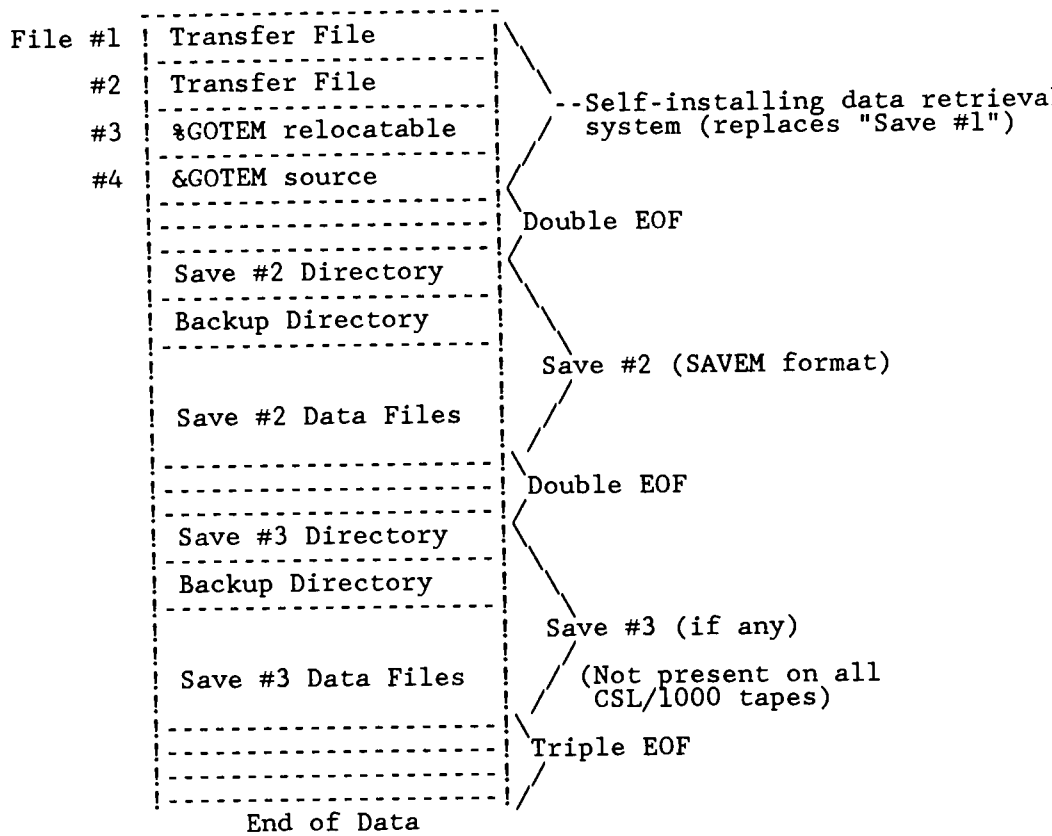
These responsibilities for the CSL/1000 library lie with Interex.

C S L / 1 0 0 0 T A P E F O R M A T

The CSL/1000 Release is contained on a single magnetic tape. The tape holds all contributions being released at this time. Your tape will be in one of two formats, as decribed below:

Standard 1/2" Computer Tape

The standard 1/2 " mag tape is written in the following format:



The first 4 files, which contain the self-installing data retrieval system, are stored in FMGR 'ST' format. These files replace what would normally be Save #1 on a 'SAVEM' tape. A double-EOF separates each 'Save' on the tape and a triple-EOF terminates the last 'Save'. Each 'Save' contains a directory file, followed by an arbitrary number of data files. The directory files and data files are all stored in a packed binary format (by program SAVEM) and must be retrieved using either program GOTEM. All data files are in FMGR format with 6-character names (see section on File-Naming Conventions).

Besides the contribution files, the CSL/1000 tape contains a full catalog for the release in file #CATLG and a skeleton CSL/1000 submission file in 'SUBMT (see 'How to Submit a Contribution').

LINUS Tape Cartridge

All CSL/1000 LINUS (CS-80) tapes are written in TF format. Data is retrieved using the HP-supported TF program. All data files are in FMGR format with 6-character names (see section on File-Naming Conventions).

F I L E - N A M I N G C O N V E N T I O N S

Each CSL/1000 contribution is assigned a unique 4-character identifier to identify all the associated files for that contribution on the CSL/1000 tape. This identifier is listed under "CONTRIBUTION NUMBER" in the index and is prominently displayed in the "PROGRAM ABSTRACTS" section of the catalog. All files associated with a given contribution have the "CONTRIBUTION NUMBER" as the first 4-characters of their names.

The file-naming algorithm is simple. File names are of the form:

'ANNNMM' where: ANNN is the contribution number.
'A' is a letter code indicating the CSL/1000 release number. Each new release is given a new letter ('J' for release 2533).
'NNN' is the serial number within the release.
MM is the number of the file within the contribution.

The file 'ANNN00' is always a 'Rename Transfer File' which can be used to rename the files within a contribution to their original names. In FMGR, this is done by ':TR,ANNN00,<cart>' where <cart> is the FMGR cartridge reference on which the files to be renamed reside. Under CI, the files are copied from a FMGR cartridge to a CI directory and renamed to their original CI names; this is done by TR,ANNN00,<cart>,<directory> where <cart> is the FMGR crn where the files reside and <directory> is the CI destination directory. (See File-Renaming Instructions for further information.)

The file 'ANNN01' is always the standard submission file that describes the contribution in detail.

Example: The CSL/1000 release J 35th contribution with 6 files is named:
J03500 ,J03501, J03502, J03503, J03504, J03505
(where J03500 is the 'Rename Transfer File' and J03501 is the 'Submission File')

D A T A - R E T R I E V A L I N S T R U C T I O N S

Standard 1/2" Computer Tape (SAVEM format)

Mount the mag tape on Logical Unit <mtlu> and then type (under FMGR):

:TR,<mtlu>,<mtlu>,<cart>

where <cart> is the FMGR cartridge to be used for temporary scratch disk files. Further instructions will be given automatically.

The data-retrieval system will retrieve file #3 (%GOTEM) from the mag tape and store it on the scratch disk. Then GOTEM will be loaded (using LINK or LOADR) and scheduled for execution. [If the load attempt fails, file #4 (&GOTEM) will be retrieved and an attempt made to compile (first FTN7X, then FTN4X, then FTN4) and load (first LINK, then LOADR).] Upon execution, GOTEM is automatically instructed to position to Save #2 (see CSL/1000 Tape Format). The user will then be able to retrieve any or all data files from the release.

Sample GOTEM Session

Program GOTEM is self-instructing and simple to use. The following is an example session with GOTEM to restore a single contribution. Multiple contributions may be restored simultaneously simply by specifying them in the restore list. User entries are underscored, comments in (parenthesis):

```
:RU,GOTEM                              \
 Enter mag tape lu: 9                   >(done automatically from transfer file)
 Enter Save# to be accessed: 2         /
 (GOTEM positions tape)
 Tape positioned to start of Save#  2
 Save date (Y:D:H:M): 1985:202:18: 0
 Header: CSL/1000 REV 2533

 Valid commands are:
   DL    - directory list of current 'Save'
   RF    - restore files to disc from current 'Save'
   SA,n  - position tape to Save#n (currently in Save#  2)
   ::    - terminate and rewind tape
 Command? DL
 Enter lu for directory listing: 1

 '-' may be used as wildcard character in file name.
 Enter namr of desired file: J019--

 Save#  2
 Save date (Y:D:H:M): 1985:202:18: 0
 Header: CSL/1000 REV 2533
  Name    Scode    Cart    Type    Size
 J01900:      0:    -61:      4:      2
 J01901:      0:    -61:      4:     18
 J01902:      0:    -61:      4:     82
    3 files found matching J019--

 Command? RF            (Restore files)
 Enter destination FMGR cartridge for restored files: SC
```

```
Enter list of file names to be restored.
   '-' may be used as wildcard:  for example, 'C023--' will
     restore all files which have 'C023' as the first 4 characters.
   Enter '::' to terminate list of files to be restored.
   Enter '++' at any time to list files currently in 'restore' list.
   Enter '/A' to abort and return to command mode.

Enter (wildcard) namr to be restored: J019--
...(Enter others as desired)...
....('------' restores all)....
Enter (wildcard) namr to be restored: ++     (list current restore list)
                Enter lu for listing: 1

Files currently in the 'restore' list --
 Name    Scode   Cart   Type   Size
J01900:      0:   -61:     4:     2
J01901:      0:   -61:     4:    18
J01902:      0:   -61:     4:    82
   3 files to be restored
Enter (wildcard) namr to be restored: ::   (end restore list)
   3 files to be restored
Override security codes of restored files? (Y/N) Y   (if you wish)
Enter security code: AW
Ready to proceed with file restore? (Y/N) Y
          Name   Scode   Cart   Type   Size
Searching
Creating  J01900:    AW:    SC:     4:     1
Writing   J01900:    AW:    SC:     4:     1
Searching
Creating  J01901:    AW:    SC:     4:     9
Writing   J01901:    AW:    SC:     4:     9
Searching
Creating  J01902:    AW:    SC:     4:    41
Writing   J01902:    AW:    SC:     4:    41
Normal end
   3 files restored

Command? ::                (Terminate GOTEM and rewind tape)
```

LINUS Tape Cartridge

LINUS cartridge tapes are supplied in standard TF format. The HP instruction manual for TF should be followed. CSL/1000 data files may be restored either to a FMGR cartridge or CI directory. A simple example which restores two contributions may be instructive (user entries underscored):

```
CI.xx>TF                                    (run TF)
TF:  CO 24{J019--,J057--} ::RT              (copy to cart/dir RT)
TF:  EX                                     (terminate)
```

Contributions J019 and J057 will be copied from the LINUS tape (assumed lu 24) to cartridge/directory 'RT'. The files now must be renamed to their original names (see next section).

FILE-RENAMING INSTRUCTIONS

Once the desired data files have been restored, they must be renamed to their original names before use. This is the purpose of the 'Rename Transfer File', which is always named 'ANNN00', where 'ANNN' is the contribution number (see File-Naming Conventions). The 'Rename Transfer File' will be in one of two formats, depending on whether the original contribution files were in FMGR or CI format. The original format of the data files for a particular contribution can be determined by examining the file names as listed in the submission file ('ANNN01' or see listing of abstracts).

Original Files are FMGR Format

In this case the files must simply be renamed. The files are assumed to be restored to a FMGR cartridge. Renaming is done by issuing the command (under FMGR):

:TR,ANNN00,<cart>

where <cart> is the FMGR cartridge on which the files reside. The files will be renamed to their original names. File 'ANNN00' is a FMGR transfer file and will work properly only under FMGR.

Original Files are CI Format

In this case the Rename Transfer File will copy the restored files to the specified CI directory and rename them. The files may have been restored either to a FMGR cart (using GOTEM or TF) or to a CI directory (TF only). Under CI, issue the command:

TR,ANNN00,<cart>,<directory>

where <cart> is the FMGR cartridge or CI directory where the files reside and <directory> is the CI destination directory (not sub-directory). The original files will not be purged. In this case, file 'ANNN00' is a CI command file and will work properly only under CI. The files will be copied to the CI directory and renamed to their original names.

DEFINITION OF A LIBRARY CONTRIBUTION

A contribution to the CSL/1000 library consists entirely of documentation and program files supplied by the contributor on computer-readable media of 2 or more files. These files are of three different types:

Submission File	- One file containing standardized documentation for the contribution. This file is created through use of the FMGR file 'SUBMT (See section HOW TO SUBMIT A CONTRIBUTION TO THE LIBRARY').
Program File(s)	- One or more files composed of program sources, transfer files, data files, etc.; i.e. the programs and everything needed to use them.
Extended Documentation	- An optional file consisting of documentation considered too lengthy to be placed into the submission file.

H O W T O S U B M I T A C O N T R I B U T I O N

The process of submitting a program to the CSL/1000 is:

Step 1) Use the editor to fill out the blank file titled 'SUBMT
- The file 'SUBMT resides on each CSL/1000 release tape and is shown below. This file enables the user to easily prepare information about his contribution. This information should be stored in a file whose name begins with ' (under FMGR) or has an extent of .SBMT (under CI).

I N T E R E X
C O N T R I B U T E D S O F T W A R E L I B R A R Y
C S L / 1 0 0 0

PROGRAM SUBMISSION FORM

```
Contribution Name.....:   [16 characters maximum]
   Title..............:   [64 characters maximum]
   File Names.........:00. Rename Transfer File   [see Note 1.]
                      :01. ' or .SBMT Submission File [see Note 2.]
                      :02. first file name [see Note 3.]
                      :03. second file name
                           [see Note 4.]
   Operating System...:
   Language(s)........:
   External Support Req'd...:
   If Re-submission, Reason.:
   Keywords...........:01. [Choose from suggested keyword list]
                      :02.
                      :03.
                      :04.
                      :05.
   External Support Req'd...:
   If Re-Submission, Reason.:
Contributor's Name.....:
              Company..:
              Street...:
              City.....:
              State....:
              Country..:
              Zip Code.:
              Phone Number..:
              Telex Number..:
Program Abstract.....:
Additional Documentation....:
```

Note 1. This line should appear as is. The CSL librarian will create the rename file.

Note 2. SUBMIT files (and only SUBMIT files) should begin with an ' (apostrophe) if in FMGR format or use a .SBMT extent if in hierarchical (CI) file format.

Note 3. It is very helpful if file names use the standard HP file naming conventions (& or .FTN for source, % or .REL for relocateables, #, .CMD, or .LOD for command files, etc.). Directory names or CRNs should not be used; all CI files should be on the same directory. FMGR files should not contain the characters / or . (slash or period).

Note 4. Any line without a : (colon) will be treated as a comment line.
- Example of proper 'File Names' section

```
File:00. Rename transfer file (Prepared by
         CSL/1000 Library committee)
    :01. 'XYZ   - Submission file (Prepared by
                  user, using blank 'SUBMT file)
    :02. &XYZ   - XYZ source code  [or XYZ.FTN]
                  Comments if desired
    :03. %XYZ   - XYZ relocatable  [or XYZ.REL]
    :04. ^XYZ   - XYZ LOADR command file [XYZ.LOD]
    :05. "XYZ   - Manual for XYZ   [or XYZ.DOC]
```

Step 2) Make a listing of the 'SUBMT file just made and sign the disclaimer.
- A copy of this listing (including the disclaimer) must be submitted with the contribution. If no line printer is available to the contributor, copy the following, sign it, and submit with the contribution.

DISCLAIMER:

To the best of my knowledge, this contributed program is free of any proprietary information belonging to any person or organization and is not licensed by any person or organization. I am making this program information available to Interex, The International Association of Hewlett-Packard Computer Users. I hereby agree that Interex may reproduce, publish, and use this program, and authorize others to do so, without obligations or liability of any kind.

_____ _____

(SIGNATURE) (DATE)

Step 3) Place submission file and all contribution files onto tape.
- The tape should contain the submission file (copy of the 'SUBMT), all sources, transfer files., etc, along with any additional documentation required. Contributions will be accepted in SAVEM, READR/SAVER, TF or FC format. It is preferable to have the files on mag tape or mini-cartridge, but they may be placed on LINUS (CS-80) tape if necessary. The tape , plus the listing of the submission file with the signed disclaimer, constitute the whole contribution. No additional paper documentation is to be submitted, e.g. a user manual.

Step 4) Mail the contribution to Interex
- The tape containing the submission file and all source files, transfer files, etc., plus the signed disclaimer, should be mailed to Interex:

CSL/1000 Chairman
Interex
2570 El Camino Real West, 4th Floor
Mountain View, California 94022
U.S.A.
(415) 941-9960

W H E R E T O G E T T H E ' S U B M T F I L E

The 'SUBMT file is included on every CSL/1000 mag tape. See the section 'CSL/1000 Tape Format' for details on the format of the tape.

ANY QUESTIONS?

If you have any further problems or questions concerning contributions in the library, the library itself, the catalog, submitting contributions, ordering the library, or anything about the INTEREX, please contact:

Interex
2570 El Camino Real West, 4th Floor
Mountain View, California 94022
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List of Current Keywords

9825
ABSOLUTE
ACCOUNTING
AI
ALGEBRA
ALGOL
ANALOG/DIGITAL
ANALYZER
APPLE
ARCHIVE
ARRAY
ASCII
ASSEMBLER
ASYNCHRONOUS
ATS
BACI
BACKUP
BAR_CODE
BASIC
BATCH
BCD
BENCHMARK
BINARY
BIT
BOOT-UP
BYTE
C
CALCOMP
CALCULATOR
CALENDAR
CAMAC
CARTRIDGE
CASSETTE
CDC
CENTRONICS
CHARACTER
CI
CLASS_NUMBER
CODE
COMPARE
COMPILER
COMPLEX
CONVERSION
COPY
CROSS-REFERENCE
DATA_BASE
DATA_COMM
DATA_MGMT
DATE
DEBUG
DEC
DECIMAL
DECODE
DEMO
DIAGNOSTIC
DIGITIZER
DIRECTORY
DISC
DISPLAY
DMA
DOCUMENTATION
DRIVER
DS
DUMP
EBCDIC
EDITOR
EMA/VMA
EMULATOR
ENGINEERING
ENTRY_POINTS
EQT
ERROR
EXPERT_SYSTEMS
EXTENTS
FAIRCHILD
FIGURES
FILES
FILTER
FINANCE
FLOATING_POINT
FLOWCHART
FMGR
FONT
FORMATTING
FORMS
FORTRAN
FOURIER
GAMES
GENERATION
GEOMETRY
GLOBALS
GRAPHICS
HELP
HPIB
I/O
IBM
ID_SEGMENTS
IMAGE
INITIALIZE
INPUT
INTEGER
INTEL
INTERACTIVE
INTERFACE
INTERPRETER
INVERSE
LABEL
LANGUAGE
LIBRARY
LINEAR_EQNS
LINK
LIST
LOADER
MACRO
MAGNETIC_TAPE
MAIL
MAINTENANCE
MANAGEMENT
MAP
MATHEMATICS
MATRIX
MEASUREMENT
MEMORY
MERGE
MESSAGE
MICROCODE
MISCELLANEOUS
MODEM
MODIFY
MONITOR
MOTOROLA
MOVE
MULTI-PROGRAM
MULTI-TERMINAL
PACK
PAPER_TAPE
PARSE
PARTITION
PASCAL
PAYROLL
PC
PERFORMANCE
PHYSICS
PLOTTING
PLUS/1000
POLYNOMIAL
PRE-PROCESSOR
PRECISION
PRINTER
PRIVILEGED
PROCEDURES
PROM
PURGE
RANDOM
RELOCATABLE
REPORTS
RESOURCE_NUMBER
RJE
SAVE/RESTORE
SCANNER
SCHEDULING
SCRATCH
SEARCH
SECURITY
SEGMENTATION
SESSION
SHELL
SIMULATOR
SNAP
SOFTKEYS
SORT
SPEECH
SPL
SPOOLING
STACK
STATISTICS
STATUS
STORAGE
STRINGS
SYSTEM
SYSTEM_TABLES
TEKTRONIX
TERMINAL
TEST
TEXT
TIME
TOOLS
TRANSFORM
TRANSLATOR
TRANSPORTABLE
TRIGONOMETRY
UNIX
UPDATE
UTILITY
VAX
WCS
WINDOWS
WORD
WORD_PROCESSING

SECTION II

CSL/1000 Release 2533

PROGRAM INDEX

Listings with an asterisk ('*') following the program description indicate that the files for that contribution were contributed in CI format.

INDEX BY CONTRIBUTION NAME

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INDEX BY CONTRIBUTION NAME

PROGRAM NAME	PROGRAM DESCRIPTION	REV.	CONT. NO.	KEYWORDS
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IPRIS	CALCULATE MOMENT OF INERTIA OF PRISMATIC BEAM		2533 J094	ENGINEERING, GEOMETRY
IVLIB	GENERAL-PURPOSE LIBRARY		2533 J111	LIBRARY
JBINF	DISPLAY GASP INITIALIZATION INFORMATION		2533 J020	HELP, SPOOLING
JCALC	ARITHMETIC CALCULATOR FOR DATA IN AN ANNOTATED FILE		2533 J047	CALCULATOR
KEEP	PROGRAM RP'ER AND ID-SEGMENT TWIDDLER		2533 J048	ID SEGMENTS
KEYS	FUNCTION KEY DEFINITIONS	*	2533 J133	SOFTKEYS
LISP	LISP INTERPRETER FROM STUG TOY'S TAPE	*	2533 J013	INTERPRETER, LANGUAGE
LISP	LISP INTERPRETER		2533 J081	INTERPRETER, LANGUAGE, AI
LIST	LIST CI FILES WITH MASKED FILE NAMES	*	2533 J124	LIST, CI
LIST	PRINT TEXT-FILES	*	2533 J130	LIST
M2240	HP2240 EXERCISER		2533 J091	HPIB, MEASUREMENT
M6942	HP6942 EXERCISER		2533 J096	MULTI-PROGRAM
MAIL	ELECTRONIC MAIL SYSTEM		2533 J049	MAIL, MESSAGE, DATA COMM
MED	EDIT WITH FILE MASK CAPABILITY	*	2533 J135	EDITOR
META	IMAGE-II DECLARATION GENERATOR FOR PASCAL	*	2533 J132	DATA BASE, IMAGE, PASCAL
MSAM	MONITOR RUNNING OUT OF S.A.M		2533 J050	MONITOR, SYSTEM TABLES
NEWSKI	TERMINAL SKI GAME		2533 J051	GAMES
NGLIB	FILE ERROR REPORTING ROUTINES		2533 J052	ERROR, MESSAGE, HELP
NKEYS	USER KEYS PROGRAMMING FOR 262X CRTS		2533 J053	SOFTKEYS
NL	FILE LISTING WITH LINENUMBERS IN CI-SYSTEM	*	2533 J134	LIST
NYQUIST PLOT	BASIC PLOTTING ROUTINES		2533 J112	ENGINEERING, MATHEMATICS, PLOTTING
ORCAM	DIS-ASSEMBLER FOR FILES IN NEW FORMAT		2533 J003	INVERSE
PASCM	AUTOMATIC COMPILING/EDITING/LINKING		2533 J107	PRE-PROCESSOR, PASCAL
PATRN	SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS	*	2533 J016	COMPARE, WORD PROCESSING, EDITOR, TEXT
PLIB	GENERAL PURPOSE LIBRARY MANAGEMENT		2533 J123	DOCUMENTATION, DATA MGMT
POST	ELECTRONIC MAILBOX		2533 J092	MAIL, MESSAGE, DATA COMM
PRFTN	FORTRAN SOURCE PREPROCESSOR		2533 J108	FORTRAN, PRE-PROCESSOR
PRIME	PRINT PRIME NUMBERS BETWEEN LIMITS ENTERED	*	2533 J010	DATA BASE, MATHEMATICS
PSWD	CHANGE PASSWORDS IN @+CCT!		2533 J056	SESSION, SECURITY
QBASE	IMAGE REPORT PROGRAM		2533 J057	REPORTS, IMAGE
QSPOL	EASY SPOOLER INTERFACE		2533 J034	SPOOLING
QXREF	RELOCATABLE-FILE CROSS-REFERENCER		2533 J087	RELOCATABLE, CROSS-REFERENCE
RC	1984 RC, RAT77, RATP1, RATP2 & 1980 RAT4	*	2533 J012	PRE-PROCESSOR, TOOLS, COMPILER
RJESY	DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT		2533 J097	RJE, IBM, DS, DATA COMM
ROFF1	TEXT FORMATTER STUG 1980 ROFF(FORMAT)	*	2533 J014	WORD PROCESSING, TEXT, FORMATTING
ROGUE	ROGUE GAME FILES FROM VAX		2533 J028	GAMES, VAX
ROI	CALCULATE INTERNAL RATE OF RETURN AND PROFITABILITY		2533 J001	ACCOUNTING, FINANCE
RPCHK	CHECK FOR NON-RP'ABLE TYPE 6 FILES		2533 J058	FILES, ID SEGMENTS, TRANSPORTABLE, SYSTEM
SC	MAC/ICD SUBCHANNEL MODIFIER		2533 J088	DISC, SYSTEM TABLES, MODIFY
SCAN	HP 264X HARDCOPY PRINTOUT		2533 J059	TERMINAL, PRINTER
SCAN	MEMORY OCCUPATION		2533 J103	SYSTEM, MEMORY, ANALYZER

INDEX BY CONTRIBUTION NAME

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
SEARCH	FILE SEARCH PROGRAM WITH MASKED FILE NAMES	*	2533	J125	SEARCH, TEXT
SEE	FILE WINDOWS FOR HP-232X TERMINALS		2533	J060	WINDOWS, GRAPHICS, TERMINAL
SESSION	RTE-A SESSION UTILITIES	*	2533	J137	MAIL, MESSAGE, SESSION
SMERGE	SORT - MERGE FROM 1980 STUG BASIC TAPE	*	2533	J015	SORT, MERGE
SNOOP	EXAMINE SWAPPED PROGRAM		2533	J061	DEBUG, SYSTEM, UTILITY
SPELLR	SPELLING CHECKER		2533	J004	WORD PROCESSING
SPINT	SPOOL INTERFACE LIBRARY		2533	J062	SPOOLING
SPINW	LETTER-QUALITY PRINTER SETUP UTILITY		2533	J063	PRINTER, UTILITY, WORD PROCESSING
SPLUM	USER ACCESS TO SYSTEM SPOOL FILES		2533	J064	SYSTEM, SPOOLING
SPOOL	CI SPOOLING FOR RTE-6/VM		2533	J065	CONVERSION, SPOOLING
STIPP	SOFTWARE TOOLS IN PASCAL PRIMITIVES	*	2533	J009	UTILITY, TOOLS, PASCAL
SUPERUSER	MAKE USER SUPERUSER OR NON-SUPERUSER FOR SESSION		2533	J066	SESSION, SECURITY
TASC1	RTE TASK MONITOR PROGRAM		2533	J002	STATUS, DEBUG, PERFORMANCE
TEXED	TEXT EDITOR		2533	J114	TEXT, EDITOR, WORD PROCESSING
TIME	ANOTHER OP-SYS TIME-SETTING PROGRAM	*	2533	J007	TIME
TIME	SET SYSTEM TIME AND TEACH ABOUT SOFTKEYS		2533	J067	TIME, SOFTKEYS
TOOLS	TOOLKIT FOR STANDARD DATA FILE (SDF) HANDLING		2533	J099	TOOLS, FILES
TOULB	HP150 TOUCH SCREEN SUBROUTINE LIBRARY		2533	J068	PC, LIBRARY
TPLOT	TRANSPARENCY PLOTTER (GRAPHICS 1000/II VERSION OF BRUNO)		2533	J069	GRAPHICS, PLOTTING
TRBL	HELP FILE FOR SPECIFIC TOPICS		2533	J076	DOCUMENTATION, HELP
TREE	OVERVIEW OF DIRECTORIES		2533	J105	DIRECTORY
TRINT	INTERPRET IMAGE-2 LOG FILE TRANSACTIONS		2533	J070	IMAGE, DATA BASE
TRKCX	CHECK DISC MAP FOR MAC AND ICD DISCS		2533	J022	SYSTEM TABLES, DISC
TSUBS	TIME SUBROUTINES		2533	J071	TIME
TYPE6	DISPLAY TYPE 6 FILE INFORMATION		2533	J072	FILES, SYSTEM
UDOCU	FORMATTED DOCUMENTATION PROGRAM		2533	J109	DOCUMENTATION, FORMATTING
UPDIR	MOVE UP ONE OR MORE LEVELS IN CI DIRECTORY TREE	*	2533	J126	DIRECTORY, CI
USE OF VMAIO.SUB	TREAT VAM/EMA AS DISK FILES	*	2533	J127	FILES, EMA/VMA
VERIFY	FMGR CARTRIDGE VERIFICATION PROGRAM		2533	J073	DIRECTORY, REPORTS, DATA MGMT, STATUS
VIEW	VIEWSCREEN HANDLING PROGRAM		2533	J074	DOCUMENTATION, HELP, TERMINAL
VOICE	SPEECH SYNTHESIS USING HP6942 MULTIPROGRAMMER		2533	J095	MULTI-PROGRAM, SPEECH
VTALK	PROGRAMMATIC INTERFACE FOR HP27201A VOICE SPEECH SYNTHESIZER		2533	J113	SPEECH, HELP
WDUP	GO BACK ONE STEP IN THE DIRECTORY		2533	J101	DIRECTORY, CI
WHO	WHO'S ON LINE ON WHAT NUMBER		2533	J077	MODEM, ACCOUNTING
WOLF	WORD ORIENTED LINE FORMATTER	*	2533	J128	TEXT, WORD PROCESSING

SECTION III

CSL/1000 Release 2533

KEYWORD CROSS-REFERENCE INDEX

Listings with an asterisk ('*') following the program description indicate that the files for that contribution were contributed in CI format.

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION	REV.	CONT. NO.	KEYWORDS
ACCOUNTING				
CPUSE	24 HOUR CPU USAGE WITH PRINTOUT	2533	J036	ANALYZER, ACCOUNTING, REPORTS, PERFORMANCE
ROI	CALCULATE INTERNAL RATE OF RETURN AND PROFITABILITY	2533	J001	ACCOUNTING, FINANCE
WHO	WHO'S ON LINE ON WHAT NUMBER	2533	J077	MODEM, ACCOUNTING
AI				
EXPER	SMALL EXPERT SYSTEM	2533	J093	EXPERT_SYSTEMS, AI
LISP	LISP INTERPRETER	2533	J081	INTERPRETER, LANGUAGE, AI
ANALYZER				
CMMA	RTE-A SYSTEM ANALYZER	2533	J033	SYSTEM, SYSTEM_TABLES, ANALYZER
CPUSE	24 HOUR CPU USAGE WITH PRINTOUT	2533	J036	ANALYZER, ACCOUNTING, REPORTS, PERFORMANCE
SCAN	MEMORY OCCUPATION	2533	J103	SYSTEM, MEMORY, ANALYZER
APPLE				
APPLE	DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE	2533	J023	APPLE, MODEM, DATA_COMM, PC
ARF	TERMINAL EMULATION WITH APPLE IIC	2533	J115	DATA_COMM, TERMINAL, EMULATOR, APPLE, PC
ARCHIVE				
AR	SOFTWARE TOOLS 'ARCHIVER'	* 2533	J011	ARCHIVE, MAINTENANCE
BAKUP	DAILY FC SYSTEM BACKUP	2533	J026	BACKUP, ARCHIVE
ARRAY				
DIMPN	ARRAY INITIALIZING PROGRAM	2533	J106	ARRAY, INITIALIZE, PRE-PROCESSOR
IBITS	BIT VECTOR MANIPULATION SUBROUTINE	2533	J078	BIT, ARRAY
ASCII				
CONV	ASCII TO NUMERIC CONVERSION	2533	J032	ASCII, CONVERSION
BACKUP				
BAKUP	DAILY FC SYSTEM BACKUP	2533	J026	BACKUP, ARCHIVE
BATCH				
BATCH	BATCH INPUT FROM DISC OR LU	2533	J027	BATCH, INPUT
BENCHMARK				
B1D	B1D WHETSTONE BENCHMARK FOR HP 1000	2533	J019	BENCHMARK, FORTRAN
BINARY				
BLI	BINARY FILE-LIST PROGRAM	* 2533	J008	LIST, BINARY

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
BIT					
IBITS	BIT VECTOR MANIPULATION SUBROUTINE		2533	J078	BIT, ARRAY
C					
HP/C LIBRARIES	HP/C COMPILER RUNTIME AND I/O LIBRARIES		2533	J031	LIBRARY, C, COMPILER
CALCULATOR					
JCALC	ARITHMETIC CALCULATOR FOR DATA IN AN ANNOTATED FILE		2533	J047	CALCULATOR
CALENDAR					
AGEN	ELECTRONIC AGENDA		2533	J104	CALENDAR
CI					
CIPRE	CI PROGRAM PREPROCESSORS		2533	J030	PRE-PROCESSOR, CI, COMPILER
CLINK	CONDITIONAL LINK	*	2533	J119	LINK, CI, UTILITY
DIRSIZE	DIRECTORY CAPACITY INFORMATION	*	2533	J116	CI, DIRECTORY
E	EDIT UTILITY WITH CI FILE MASK CAPABILITY	*	2533	J118	EDITOR, CI
FIXFMGR	FIX ODD BYTE COUNT FMGR RECORDS		2533	J043	TRANSPORTABLE, FMGR, CI
LIST	LIST CI FILES WITH MASKED FILE NAMES	*	2533	J124	LIST, CI
UPDIR	MOVE UP ONE OR MORE LEVELS IN CI DIRECTORY TREE	*	2533	J126	DIRECTORY, CI
WDUP	GO BACK ONE STEP IN THE DIRECTORY		2533	J101	DIRECTORY, CI
COMPARE					
CMPAR	COMPARE PARAMETERS IN FORTRAN SUBROUTINES		2533	J021	COMPARE, FORTRAN, DEBUG, CROSS-REFERENCE
PATRN	SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS	*	2533	J016	COMPARE, WORD_PROCESSING, EDITOR, TEXT
COMPILER					
C	COMPILE UTILITY	*	2533	J138	COMPILER, PRE-PROCESSOR
CIPRE	CI PROGRAM PREPROCESSORS		2533	J030	PRE-PROCESSOR, CI, COMPILER
HP/C LIBRARIES	HP/C COMPILER RUNTIME AND I/O LIBRARIES		2533	J031	LIBRARY, C, COMPILER
RC	1984 RC, RAT77, RATP1, RATP2 & 1980 RAT4	*	2533	J012	PRE-PROCESSOR, TOOLS, COMPILER
CONVERSION					
CONV	ASCII TO NUMERIC CONVERSION		2533	J032	ASCII, CONVERSION
FMPLB	FMGR CALLS FOR CI FILES		2533	J044	CONVERSION, LIBRARY, EMULATOR, FILES
SPOOL	CI SPOOLING FOR RTE-6/VM		2533	J065	CONVERSION, SPOOLING
CROSS-REFERENCE					
CMPAR	COMPARE PARAMETERS IN FORTRAN SUBROUTINES		2533	J021	COMPARE, FORTRAN, DEBUG, CROSS-REFERENCE
QXREF	RELOCATABLE-FILE CROSS-REFERENCER		2533	J087	RELOCATABLE, CROSS-REFERENCE

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
DATA_BASE					
DBEXP	EXPLAIN DATA-BASE FORMAT		2533	J017	HELP, IMAGE, DATA_BASE
DBMOD	DATA BASE MODIFIER		2533	J038	IMAGE, DATA_BASE, MODIFY
DBMOX	DATA BASE MODIFY PROGRAM		2533	J039	DATA_BASE, IMAGE, MODIFY
META	IMAGE-II DECLARATION GENERATOR FOR PASCAL	*	2533	J132	DATA_BASE, IMAGE, PASCAL
PRIME	PRINT PRIME NUMBERS BETWEEN LIMITS ENTERED	*	2533	J010	DATA_BASE, MATHEMATICS
TRINT	INTERPRET IMAGE-2 LOG FILE TRANSACTIONS		2533	J070	IMAGE, DATA_BASE
DATA_COMM					
APPLE	DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE		2533	J023	APPLE, MODEM, DATA_COMM, PC
ARF	TERMINAL EMULATION WITH APPLE IIC		2533	J115	DATA_COMM, TERMINAL, EMULATOR, APPLE, PC
IBMPC	TRANSFER DATA FROM IBM PC TO HP 1000		2533	J054	PC, DUMP, DATA_COMM
MAIL	ELECTRONIC MAIL SYSTEM		2533	J049	MAIL, MESSAGE, DATA_COMM
POST	ELECTRONIC MAILBOX		2533	J092	MAIL, MESSAGE, DATA_COMM
RJESY	DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT		2533	J097	RJE, IBM, DS, DATA_COMM
DATA_MGMT					
ANNN01	DATA ENTRY / SAVING / PLOTTING PACKAGE		2533	J055	PLOTTING, GRAPHICS, STORAGE, DATA_MGMT
DSTAT	DISC STATUS REPORT		2533	J084	DISC, DATA_MGMT
PLIB	GENERAL PURPOSE LIBRARY MANAGEMENT		2533	J123	DOCUMENTATION, DATA_MGMT
VERIFY	FMGR CARTRIDGE VERIFICATION PROGRAM		2533	J073	DIRECTORY, REPORTS, DATA_MGMT, STATUS
DEBUG					
CMPAR	COMPARE PARAMETERS IN FORTRAN SUBROUTINES		2533	J021	COMPARE, FORTRAN, DEBUG, CROSS-REFERENCE
FERR	FORTRAN ERROR EXPLANATION	*	2533	J122	ERROR, HELP, DEBUG, MESSAGE
SNOOP	EXAMINE SWAPPED PROGRAM		2533	J061	DEBUG, SYSTEM, UTILITY
TASC1	RTE TASK MONITOR PROGRAM		2533	J002	STATUS, DEBUG, PERFORMANCE
DIRECTORY					
DE	DIRECTORY END LIST		2533	J085	DISC, DIRECTORY
DI	LIST DIRECTORY TREE AND CHANGE WORKING DIRECTORY	*	2533	J131	DIRECTORY, LIST
DIRSIZE	DIRECTORY CAPACITY INFORMATION	*	2533	J116	CI, DIRECTORY
TREE	OVERVIEW OF DIRECTORIES		2533	J105	DIRECTORY
UPDIR	MOVE UP ONE OR MORE LEVELS IN CI DIRECTORY TREE	*	2533	J126	DIRECTORY, CI
VERIFY	FMGR CARTRIDGE VERIFICATION PROGRAM		2533	J073	DIRECTORY, REPORTS, DATA_MGMT, STATUS
WDUP	GO BACK ONE STEP IN THE DIRECTORY		2533	J101	DIRECTORY, CI
DISC					
CS80	TRACK MAP DVT TABLE		2533	J075	SYSTEM_TABLES, DISC, GENERATION
CSDEF	DEFINE CS/80 DISC TRACK MAP		2533	J018	SYSTEM_TABLES, DISC
DE	DIRECTORY END LIST		2533	J085	DISC, DIRECTORY
DSTAT	DISC STATUS REPORT		2533	J084	DISC, DATA_MGMT
SC	MAC/ICD SUBCHANNEL MODIFIER		2533	J088	DISC, SYSTEM_TABLES, MODIFY
TRKCX	CHECK DISC MAP FOR MAC AND ICD DISCS		2533	J022	SYSTEM_TABLES, DISC

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PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
DISPLAY					
FORM	MENU EDITING PROGRAM	*	2533	J129	INTERACTIVE, HELP, DISPLAY
DMA					
CPIC	DIRECT, DMA, PRIVILEGED MODE I/O EXAMPLES		2533	J035	I/O, DMA, PRIVILEGED
DOCUMENTATION					
PLIB	GENERAL PURPOSE LIBRARY MANAGEMENT		2533	J123	DOCUMENTATION, DATA_MGMT
TRBL	HELP FILE FOR SPECIFIC TOPICS		2533	J076	DOCUMENTATION, HELP
UDOCU	FORMATTED DOCUMENTATION PROGRAM		2533	J109	DOCUMENTATION, FORMATTING
VIEW	VIEWSCREEN HANDLING PROGRAM		2533	J074	DOCUMENTATION, HELP, TERMINAL
DRIVER					
D2225	DGL DEVICE HANDLER FOR THINKJET		2533	J100	GRAPHICS, DRIVER
DVP12	LINEPRINTER DRIVER AND SUPPORT SOFTWARE		2533	J040	DRIVER, PRINTER
DS					
RJESY	DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT		2533	J097	RJE, IBM, DS, DATA_COMM
DUMP					
DUFI	DUMP FILE PROGRAM	*	2533	J120	SOFTKEYS, DUMP
IBMPC	TRANSFER DATA FROM IBM PC TO HP 1000		2533	J054	PC, DUMP, DATA_COMM
EDITOR					
E	EDIT UTILITY WITH CI FILE MASK CAPABILITY	*	2533	J118	EDITOR, CI
MED	EDIT WITH FILE MASK CAPABILITY	*	2533	J135	EDITOR
PATRN	SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS	*	2533	J016	COMPARE, WORD_PROCESSING, EDITOR, TEXT
TEXED	TEXT EDITOR		2533	J114	TEXT, EDITOR, WORD_PROCESSING
EMA/VMA					
USE_OF_VMAIO.SUB	TREAT VAM/EMA AS DISK FILES	*	2533	J127	FILES, EMA/VMA
EMULATOR					
ARF	TERMINAL EMULATION WITH APPLE IIC		2533	J115	DATA_COMM, TERMINAL, EMULATOR, APPLE, PC
FMPLB	FMGR CALLS FOR CI FILES		2533	J044	CONVERSION, LIBRARY, EMULATOR, FILES
ENGINEERING					
IPRIS	CALCULATE MOMENT OF INERTIA OF PRISMATIC BEAM		2533	J094	ENGINEERING, GEOMETRY
NYQUIST PLOT	BASIC PLOTTING ROUTINES		2533	J112	ENGINEERING, MATHEMATICS, PLOTTING

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
ENTRY_POINTS					
ENMAP	ENTRY POINT MAPPING UTILITY		2533	J082	RELOCATABLE, ENTRY_POINTS
EQT					
DATA	EQUIPMENT TABLE PRINT OUT		2533	J037	SYSTEM_TABLES, EQT
DVT	GET DVT & IFT INFO	*	2533	J136	SYSTEM_TABLES, EQT
EQTS	EQUIPMENT TABLE ACCESS		2533	J041	SYSTEM_TABLES, EQT
ERROR					
DCIEC	INPUT ROUTINES W/ERROR CHECKING FOR THE HP1000		2533	J080	ERROR, INPUT, INTERACTIVE
FERR	FORTRAN ERROR EXPLANATION	*	2533	J122	ERROR, HELP, DEBUG, MESSAGE
NGLIB	FILE ERROR REPORTING ROUTINES		2533	J052	ERROR, MESSAGE, HELP
EXPERT_SYSTEMS					
EXPER	SMALL EXPERT SYSTEM		2533	J093	EXPERT_SYSTEMS, AI
EXTENTS					
CLEAN	FMGR CARTRIDGE CLEAN UP PROGRAM		2533	J029	EXTENTS, FILES
FILES					
CLEAN	FMGR CARTRIDGE CLEAN UP PROGRAM		2533	J029	EXTENTS, FILES
ERASE	ERASE A FMGR CARTRIDGE		2533	J042	PURGE, FILES, INITIALIZE
FMPLB	FMGR CALLS FOR CI FILES		2533	J044	CONVERSION, LIBRARY, EMULATOR, FILES
RPCHK	CHECK FOR NON-RP'ABLE TYPE 6 FILES		2533	J058	FILES, ID_SEGMENTS, TRANSPORTABLE, SYSTEM
TOOLS	TOOLKIT FOR STANDARD DATA FILE (SDF) HANDLING		2533	J099	TOOLS, FILES
TYPE6	DISPLAY TYPE 6 FILE INFORMATION		2533	J072	FILES, SYSTEM
USE_OF_VMAIO.SUB	TREAT VAM/EMA AS DISK FILES	*	2533	J127	FILES, EMA/VMA
FINANCE					
ROI	CALCULATE INTERNAL RATE OF RETURN AND PROFITABILITY		2533	J001	ACCOUNTING, FINANCE
FMGR					
FCOM	ISSUE FMGR COMMANDS FROM A PROGRAM		2533	J110	FMGR, PROCEDURES
FIXFMGR	FIX ODD BYTE COUNT FMGR RECORDS		2533	J043	TRANSPORTABLE, FMGR, CI
FONT					
FONT & JULIAN	SWEDISH-FINNISH AGP FONTS; TIME-RELATED ROUTINES	*	2533	J117	FONT, TIME
GFONT	INTERACTIVE FONT GENERATOR		2533	J045	FONT, TEXT, INTERACTIVE
FORMATTING					
ROFF1	TEXT FORMATTER STUG 1980 ROFF(FORMAT)	*	2533	J014	WORD_PROCESSING, TEXT, FORMATTING
UDOCU	FORMATTED DOCUMENTATION PROGRAM		2533	J109	DOCUMENTATION, FORMATTING

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
FORTRAN					
B1D	B1D WHETSTONE BENCHMARK FOR HP 1000		2533	J019	BENCHMARK, FORTRAN
CMPAR	COMPARE PARAMETERS IN FORTRAN SUBROUTINES		2533	J021	COMPARE, FORTRAN, DEBUG, CROSS-REFERENCE
PRFTN	FORTRAN SOURCE PREPROCESSOR		2533	J108	FORTRAN, PRE-PROCESSOR
GAMES					
NEWSKI	TERMINAL SKI GAME		2533	J051	GAMES
ROGUE	ROGUE GAME FILES FROM VAX		2533	J028	GAMES, VAX
GENERATION					
CS80	TRACK MAP DVT TABLE		2533	J075	SYSTEM_TABLES, DISC, GENERATION
GEOMETRY					
IPRIS	CALCULATE MOMENT OF INERTIA OF PRISMATIC BEAM		2533	J094	ENGINEERING, GEOMETRY
GRAPHICS					
ANNN01	DATA ENTRY / SAVING / PLOTTING PACKAGE		2533	J055	PLOTTING, GRAPHICS, STORAGE, DATA_MGMT
BACKS	INDEXES FOR BINDER BACKS		2533	J025	TEXT, LABEL, GRAPHICS
BNOAL	BRUNO COMPATIBLE PLOT PROGRAM		2533	J098	GRAPHICS
D2225	DGL DEVICE HANDLER FOR THINKJET		2533	J100	GRAPHICS, DRIVER
EPLOT	INTERACTIVE PLOTTING PROGRAM		2533	J102	PLOTTING, GRAPHICS, INTERACTIVE
GRPHX	INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 1 OF 2		2533	J089	GRAPHICS, INTERACTIVE
GRPHX	INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 2 OF 2		2533	J090	GRAPHICS, INTERACTIVE
SEE	FILE WINDOWS FOR HP-232X TERMINALS		2533	J060	WINDOWS, GRAPHICS, TERMINAL
TPLOT	TRANSPARENCY PLOTTER (GRAPHICS 1000/II VERSION OF BRUNO)		2533	J069	GRAPHICS, PLOTTING
HELP					
ADDIX, LIST	HIGH-SPEED HELP-FILE FACILITY	*	2533	J006	HELP, LIST
DBEXP	EXPLAIN DATA-BASE FORMAT		2533	J017	HELP, IMAGE, DATA_BASE
FERR	FORTRAN ERROR EXPLANATION	*	2533	J122	ERROR, HELP, DEBUG, MESSAGE
FORM	MENU EDITING PROGRAM	*	2533	J129	INTERACTIVE, HELP, DISPLAY
HOW	USER HELP PROGRAM		2533	J046	HELP, MESSAGE
JBINF	DISPLAY GASP INITIALIZATION INFORMATION		2533	J020	HELP, SPOOLING
NGLIB	FILE ERROR REPORTING ROUTINES		2533	J052	ERROR, MESSAGE, HELP
TRBL	HELP FILE FOR SPECIFIC TOPICS		2533	J076	DOCUMENTATION, HELP
VIEW	VIEWSCREEN HANDLING PROGRAM		2533	J074	DOCUMENTATION, HELP, TERMINAL
VTALK	PROGRAMMATIC INTERFACE FOR HP27201A VOICE SPEECH SYNTHESIZER		2533	J113	SPEECH, HELP
HPIB					
M2240	HP2240 EXERCISER		2533	J091	HPIB, MEASUREMENT
I/O					
CPIC	DIRECT, DMA, PRIVILEGED MODE I/O EXAMPLES		2533	J035	I/O, DMA, PRIVILEGED

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
IBM					
RJESY	DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT		2533	J097	RJE, IBM, DS, DATA_COMM
ID_SEGMENTS					
IDCHK	ID SEGMENT CHECKER		2533	J086	SYSTEM, ID_SEGMENTS
KEEP	PROGRAM RP'ER AND ID-SEGMENT TWIDDLER		2533	J048	ID_SEGMENTS
RPCHK	CHECK FOR NON-RP'ABLE TYPE 6 FILES		2533	J058	FILES, ID_SEGMENTS, TRANSPORTABLE, SYSTEM
IMAGE					
DBEXP	EXPLAIN DATA-BASE FORMAT		2533	J017	HELP, IMAGE, DATA_BASE
DBMOD	DATA BASE MODIFIER		2533	J038	IMAGE, DATA_BASE, MODIFY
DBMOX	DATA BASE MODIFY PROGRAM		2533	J039	DATA_BASE, IMAGE, MODIFY
META	IMAGE-II DECLARATION GENERATOR FOR PASCAL	*	2533	J132	DATA_BASE, IMAGE, PASCAL
QBASE	IMAGE REPORT PROGRAM		2533	J057	REPORTS, IMAGE
TRINT	INTERPRET IMAGE-2 LOG FILE TRANSACTIONS		2533	J070	IMAGE, DATA_BASE
INITIALIZE					
DIMPN	ARRAY INITIALIZING PROGRAM		2533	J106	ARRAY, INITIALIZE, PRE-PROCESSOR
ERASE	ERASE A FMGR CARTRIDGE		2533	J042	PURGE, FILES, INITIALIZE
INPUT					
BATCH	BATCH INPUT FROM DISC OR LU		2533	J027	BATCH, INPUT
DCIEC	INPUT ROUTINES W/ERROR CHECKING FOR THE HP1000		2533	J080	ERROR, INPUT, INTERACTIVE
INTERACTIVE					
DCIEC	INPUT ROUTINES W/ERROR CHECKING FOR THE HP1000		2533	J080	ERROR, INPUT, INTERACTIVE
EPLOT	INTERACTIVE PLOTTING PROGRAM		2533	J102	PLOTTING, GRAPHICS, INTERACTIVE
FORM	MENU EDITING PROGRAM	*	2533	J129	INTERACTIVE, HELP, DISPLAY
GFONT	INTERACTIVE FONT GENERATOR		2533	J045	FONT, TEXT, INTERACTIVE
GRPHX	INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 1 OF 2		2533	J089	GRAPHICS, INTERACTIVE
GRPHX	INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 2 OF 2		2533	J090	GRAPHICS, INTERACTIVE
INTERPRETER					
LISP	LISP INTERPRETER FROM STUG TOY'S TAPE	*	2533	J013	INTERPRETER, LANGUAGE
LISP	LISP INTERPRETER		2533	J081	INTERPRETER, LANGUAGE, AI
INVERSE					
DCODE	DECODE RELOCATABLE RECORDS		2533	J079	INVERSE, RELOCATABLE
ORCAM	DIS-ASSEMBLER FOR FILES IN NEW FORMAT		2533	J003	INVERSE
LABEL					
BACKS	INDEXES FOR BINDER BACKS		2533	J025	TEXT, LABEL, GRAPHICS

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
LANGUAGE					
LISP	LISP INTERPRETER FROM STUG TOY'S TAPE	*	2533	J013	INTERPRETER, LANGUAGE
LISP	LISP INTERPRETER		2533	J081	INTERPRETER, LANGUAGE, AI
LIBRARY					
ASUBS	ASSEMBLY LANGUAGE SUBROUTINES		2533	J024	LIBRARY
FMPLB	FMGR CALLS FOR CI FILES		2533	J044	CONVERSION, LIBRARY, EMULATOR, FILES
HP/C LIBRARIES	HP/C COMPILER RUNTIME AND I/O LIBRARIES		2533	J031	LIBRARY, C, COMPILER
IVLIB	GENERAL-PURPOSE LIBRARY		2533	J111	LIBRARY
TOULB	HP150 TOUCH SCREEN SUBROUTINE LIBRARY		2533	J068	PC, LIBRARY
LINK					
CLINK	CONDITIONAL LINK	*	2533	J119	LINK, CI, UTILITY
CPLK	AUTOMATIC COMPILE AND LINK PROCEDURE	*	2533	J121	LINK, PROCEDURES
LIST					
ADDIX, LIST	HIGH-SPEED HELP-FILE FACILITY	*	2533	J006	HELP, LIST
BLI	BINARY FILE-LIST PROGRAM	*	2533	J008	LIST, BINARY
DI	LIST DIRECTORY TREE AND CHANGE WORKING DIRECTORY	*	2533	J131	DIRECTORY, LIST
LIST	LIST CI FILES WITH MASKED FILE NAMES	*	2533	J124	LIST, CI
LIST	PRINT TEXT-FILES	*	2533	J130	LIST
NL	FILE LISTING WITH LINENUMBERS IN CI-SYSTEM	*	2533	J134	LIST
MAIL					
MAIL	ELECTRONIC MAIL SYSTEM		2533	J049	MAIL, MESSAGE, DATA_COMM
POST	ELECTRONIC MAILBOX		2533	J092	MAIL, MESSAGE, DATA_COMM
SESSION	RTE-A SESSION UTILITIES	*	2533	J137	MAIL, MESSAGE, SESSION
MAINTENANCE					
AR	SOFTWARE TOOLS 'ARCHIVER'	*	2533	J011	ARCHIVE, MAINTENANCE
MATHEMATICS					
NYQUIST PLOT	BASIC PLOTTING ROUTINES		2533	J112	ENGINEERING, MATHEMATICS, PLOTTING
PRIME	PRINT PRIME NUMBERS BETWEEN LIMITS ENTERED	*	2533	J010	DATA_BASE, MATHEMATICS
MEASUREMENT					
M2240	HP2240 EXERCISER		2533	J091	HPIB, MEASUREMENT
MEMORY					
SCAN	MEMORY OCCUPATION		2533	J103	SYSTEM, MEMORY, ANALYZER

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
MERGE					
SMERGE	SORT - MERGE FROM 1980 STUG BASIC TAPE	*	2533	J015	SORT, MERGE
MESSAGE					
FERR	FORTRAN ERROR EXPLANATION	*	2533	J122	ERROR, HELP, DEBUG, MESSAGE
HOW	USER HELP PROGRAM		2533	J046	HELP, MESSAGE
MAIL	ELECTRONIC MAIL SYSTEM		2533	J049	MAIL, MESSAGE, DATA_COMM
NGLIB	FILE ERROR REPORTING ROUTINES		2533	J052	ERROR, MESSAGE, HELP
POST	ELECTRONIC MAILBOX		2533	J092	MAIL, MESSAGE, DATA_COMM
SESSION	RTE-A SESSION UTILITIES	*	2533	J137	MAIL, MESSAGE, SESSION
MODEM					
APPLE	DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE		2533	J023	APPLE, MODEM, DATA_COMM, PC
WHO	WHO'S ON LINE ON WHAT NUMBER		2533	J077	MODEM, ACCOUNTING
MODIFY					
DBMOD	DATA BASE MODIFIER		2533	J038	IMAGE, DATA_BASE, MODIFY
DBMOX	DATA BASE MODIFY PROGRAM		2533	J039	DATA_BASE, IMAGE, MODIFY
SC	MAC/ICD SUBCHANNEL MODIFIER		2533	J088	DISC, SYSTEM_TABLES, MODIFY
MONITOR					
MSAM	MONITOR RUNNING OUT OF S.A.M		2533	J050	MONITOR, SYSTEM_TABLES
MULTI-PROGRAM					
M6942	HP6942 EXERCISER		2533	J096	MULTI-PROGRAM
VOICE	SPEECH SYNTHESIS USING HP6942 MULTIPROGRAMMER		2533	J095	MULTI-PROGRAM, SPEECH
PARSE					
CMDSTACK	COMMAND STACK SUBROUTINES	*	2533	J005	STACK, STRINGS, PARSE
PASCAL					
META	IMAGE-II DECLARATION GENERATOR FOR PASCAL	*	2533	J132	DATA_BASE, IMAGE, PASCAL
PASCM	AUTOMATIC COMPILING/EDITING/LINKING		2533	J107	PRE-PROCESSOR, PASCAL
STIPP	SOFTWARE TOOLS IN PASCAL PRIMITIVES	*	2533	J009	UTILITY, TOOLS, PASCAL
PC					
APPLE	DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE		2533	J023	APPLE, MODEM, DATA_COMM, PC
ARF	TERMINAL EMULATION WITH APPLE IIC		2533	J115	DATA_COMM, TERMINAL, EMULATOR, APPLE, PC
IBMPC	TRANSFER DATA FROM IBM PC TO HP 1000		2533	J054	PC, DUMP, DATA_COMM
TOULB	HP150 TOUCH SCREEN SUBROUTINE LIBRARY		2533	J068	PC, LIBRARY

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
PERFORMANCE					
CPUSE	24 HOUR CPU USAGE WITH PRINTOUT		2533	J036	ANALYZER, ACCOUNTING, REPORTS, PERFORMANCE
TASC1	RTE TASK MONITOR PROGRAM		2533	J002	STATUS, DEBUG, PERFORMANCE
PLOTTING					
ANNN01	DATA ENTRY / SAVING / PLOTTING PACKAGE		2533	J055	PLOTTING, GRAPHICS, STORAGE, DATA_MGMT
EPLOT	INTERACTIVE PLOTTING PROGRAM		2533	J102	PLOTTING, GRAPHICS, INTERACTIVE
NYQUIST PLOT	BASIC PLOTTING ROUTINES		2533	J112	ENGINEERING, MATHEMATICS, PLOTTING
TPLOT	TRANSPARENCY PLOTTER (GRAPHICS 1000/II VERSION OF BRUNO)		2533	J069	GRAPHICS, PLOTTING
PRE-PROCESSOR					
C	COMPILE UTILITY	*	2533	J138	COMPILER, PRE-PROCESSOR
CIPRE	CI PROGRAM PREPROCESSORS		2533	J030	PRE-PROCESSOR, CI, COMPILER
DIMPN	ARRAY INITIALIZING PROGRAM		2533	J106	ARRAY, INITIALIZE, PRE-PROCESSOR
PASCM	AUTOMATIC COMPILING/EDITING/LINKING		2533	J107	PRE-PROCESSOR, PASCAL
PRFTN	FORTRAN SOURCE PREPROCESSOR		2533	J108	FORTRAN, PRE-PROCESSOR
RC	1984 RC, RAT77, RATP1, RATP2 & 1980 RAT4	*	2533	J012	PRE-PROCESSOR, TOOLS, COMPILER
PRINTER					
DVP12	LINEPRINTER DRIVER AND SUPPORT SOFTWARE		2533	J040	DRIVER, PRINTER
SCAN	HP 264X HARDCOPY PRINTOUT		2533	J059	TERMINAL, PRINTER
SPINW	LETTER-QUALITY PRINTER SETUP UTILITY		2533	J063	PRINTER, UTILITY, WORD_PROCESSING
PRIVILEGED					
CPIC	DIRECT, DMA, PRIVILEGED MODE I/O EXAMPLES		2533	J035	I/O, DMA, PRIVILEGED
PROCEDURES					
CPLK	AUTOMATIC COMPILE AND LINK PROCEDURE	*	2533	J121	LINK, PROCEDURES
FCOM	ISSUE FMGR COMMANDS FROM A PROGRAM		2533	J110	FMGR, PROCEDURES
PURGE					
ERASE	ERASE A FMGR CARTRIDGE		2533	J042	PURGE, FILES, INITIALIZE
RELOCATABLE					
DCODE	DECODE RELOCATABLE RECORDS		2533	J079	INVERSE, RELOCATABLE
ENMAP	ENTRY POINT MAPPING UTILITY		2533	J082	RELOCATABLE, ENTRY_POINTS
EXMAP	EXTERNAL REFERENCE MAPPING UTILITY		2533	J083	RELOCATABLE
QXREF	RELOCATABLE-FILE CROSS-REFERENCER		2533	J087	RELOCATABLE, CROSS-REFERENCE
REPORTS					
CPUSE	24 HOUR CPU USAGE WITH PRINTOUT		2533	J036	ANALYZER, ACCOUNTING, REPORTS, PERFORMANCE
QBASE	IMAGE REPORT PROGRAM		2533	J057	REPORTS, IMAGE
VERIFY	FMGR CARTRIDGE VERIFICATION PROGRAM		2533	J073	DIRECTORY, REPORTS, DATA_MGMT, STATUS

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
RJE					
RJESY	DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT		2533	J097	RJE, IBM, DS, DATA_COMM
SEARCH					
SEARCH	FILE SEARCH PROGRAM WITH MASKED FILE NAMES	*	2533	J125	SEARCH, TEXT
SECURITY					
PSWD	CHANGE PASSWORDS IN @+CCT!		2533	J056	SESSION, SECURITY
SUPERUSER	MAKE USER SUPERUSER OR NON-SUPERUSER FOR SESSION		2533	J066	SESSION, SECURITY
SESSION					
PSWD	CHANGE PASSWORDS IN @+CCT!		2533	J056	SESSION, SECURITY
SESSION	RTE-A SESSION UTILITIES	*	2533	J137	MAIL, MESSAGE, SESSION
SUPERUSER	MAKE USER SUPERUSER OR NON-SUPERUSER FOR SESSION		2533	J066	SESSION, SECURITY
SOFTKEYS					
DUFI	DUMP FILE PROGRAM	*	2533	J120	SOFTKEYS, DUMP
KEYS	FUNCTION KEY DEFINITIONS	*	2533	J133	SOFTKEYS
NKEYS	USER KEYS PROGRAMMING FOR 262X CRTS		2533	J053	SOFTKEYS
TIME	SET SYSTEM TIME AND TEACH ABOUT SOFTKEYS		2533	J067	TIME, SOFTKEYS
SORT					
SMERGE	SORT - MERGE FROM 1980 STUG BASIC TAPE	*	2533	J015	SORT, MERGE
SPEECH					
VOICE	SPEECH SYNTHESIS USING HP6942 MULTIPROGRAMMER		2533	J095	MULTI-PROGRAM, SPEECH
VTALK	PROGRAMMATIC INTERFACE FOR HP27201A VOICE SPEECH SYNTHESIZER		2533	J113	SPEECH, HELP
SPOOLING					
JBINF	DISPLAY GASP INITIALIZATION INFORMATION		2533	J020	HELP, SPOOLING
QSPOL	EASY SPOOLER INTERFACE		2533	J034	SPOOLING
SPINT	SPOOL INTERFACE LIBRARY		2533	J062	SPOOLING
SPLUM	USER ACCESS TO SYSTEM SPOOL FILES		2533	J064	SYSTEM, SPOOLING
SPOOL	CI SPOOLING FOR RTE-6/VM		2533	J065	CONVERSION, SPOOLING
STACK					
CMDSTACK	COMMAND STACK SUBROUTINES	*	2533	J005	STACK, STRINGS, PARSE
STATUS					
TASC1	RTE TASK MONITOR PROGRAM		2533	J002	STATUS, DEBUG, PERFORMANCE
VERIFY	FMGR CARTRIDGE VERIFICATION PROGRAM		2533	J073	DIRECTORY, REPORTS, DATA_MGMT, STATUS

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
STORAGE					
ANNN01	DATA ENTRY / SAVING / PLOTTING PACKAGE		2533	J055	PLOTTING, GRAPHICS, STORAGE, DATA_MGMT
STRINGS					
CMDSTACK	COMMAND STACK SUBROUTINES	*	2533	J005	STACK, STRINGS, PARSE
SYSTEM					
CMMA	RTE-A SYSTEM ANALYZER		2533	J033	SYSTEM, SYSTEM_TABLES, ANALYZER
IDCHK	ID SEGMENT CHECKER		2533	J086	SYSTEM, ID_SEGMENTS
RPCHK	CHECK FOR NON-RP'ABLE TYPE 6 FILES		2533	J058	FILES, ID_SEGMENTS, TRANSPORTABLE, SYSTEM
SCAN	MEMORY OCCUPATION		2533	J103	SYSTEM, MEMORY, ANALYZER
SNOOP	EXAMINE SWAPPED PROGRAM		2533	J061	DEBUG, SYSTEM, UTILITY
SPLUM	USER ACCESS TO SYSTEM SPOOL FILES		2533	J064	SYSTEM, SPOOLING
TYPE6	DISPLAY TYPE 6 FILE INFORMATION		2533	J072	FILES, SYSTEM
SYSTEM_TABLES					
CMMA	RTE-A SYSTEM ANALYZER		2533	J033	SYSTEM, SYSTEM_TABLES, ANALYZER
CS80	TRACK MAP DVT TABLE		2533	J075	SYSTEM_TABLES, DISC, GENERATION
CSDEF	DEFINE CS/80 DISC TRACK MAP		2533	J018	SYSTEM_TABLES, DISC
DATA	EQUIPMENT TABLE PRINT OUT		2533	J037	SYSTEM_TABLES, EQT
DVT	GET DVT & IFT INFO	*	2533	J136	SYSTEM_TABLES, EQT
EQTS	EQUIPMENT TABLE ACCESS		2533	J041	SYSTEM_TABLES, EQT
MSAM	MONITOR RUNNING OUT OF S.A.M		2533	J050	MONITOR, SYSTEM_TABLES
SC	MAC/ICD SUBCHANNEL MODIFIER		2533	J088	DISC, SYSTEM_TABLES, MODIFY
TRKCX	CHECK DISC MAP FOR MAC AND ICD DISCS		2533	J022	SYSTEM_TABLES, DISC
TERMINAL					
ARF	TERMINAL EMULATION WITH APPLE IIC		2533	J115	DATA_COMM, TERMINAL, EMULATOR, APPLE, PC
SCAN	HP 264X HARDCOPY PRINTOUT		2533	J059	TERMINAL, PRINTER
SEE	FILE WINDOWS FOR HP-232X TERMINALS		2533	J060	WINDOWS, GRAPHICS, TERMINAL
VIEW	VIEWSCREEN HANDLING PROGRAM		2533	J074	DOCUMENTATION, HELP, TERMINAL
TEXT					
BACKS	INDEXES FOR BINDER BACKS		2533	J025	TEXT, LABEL, GRAPHICS
GFONT	INTERACTIVE FONT GENERATOR		2533	J045	FONT, TEXT, INTERACTIVE
PATRN	SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS	*	2533	J016	COMPARE, WORD_PROCESSING, EDITOR, TEXT
ROFF1	TEXT FORMATTER STUG 1980 ROFF(FORMAT)	*	2533	J014	WORD_PROCESSING, TEXT, FORMATTING
SEARCH	FILE SEARCH PROGRAM WITH MASKED FILE NAMES	*	2533	J125	SEARCH, TEXT
TEXED	TEXT EDITOR		2533	J114	TEXT, EDITOR, WORD_PROCESSING
WOLF	WORD ORIENTED LINE FORMATTER	*	2533	J128	TEXT, WORD_PROCESSING

INDEX BY KEYWORD

PROGRAM NAME	PROGRAM DESCRIPTION		REV.	CONT. NO.	KEYWORDS
TIME					
FONT & JULIAN	SWEDISH-FINNISH AGP FONTS; TIME-RELATED ROUTINES	*	2533	J117	FONT, TIME
TIME	ANOTHER OP-SYS TIME-SETTING PROGRAM	*	2533	J007	TIME
TIME	SET SYSTEM TIME AND TEACH ABOUT SOFTKEYS		2533	J067	TIME, SOFTKEYS
TSUBS	TIME SUBROUTINES		2533	J071	TIME
TOOLS					
RC	1984 RC, RAT77, RATP1, RATP2 & 1980 RAT4	*	2533	J012	PRE-PROCESSOR, TOOLS, COMPILER
STIPP	SOFTWARE TOOLS IN PASCAL PRIMITIVES	*	2533	J009	UTILITY, TOOLS, PASCAL
TOOLS	TOOLKIT FOR STANDARD DATA FILE (SDF) HANDLING		2533	J099	TOOLS, FILES
TRANSPORTABLE					
FIXFMGR	FIX ODD BYTE COUNT FMGR RECORDS		2533	J043	TRANSPORTABLE, FMGR, CI
RPCHK	CHECK FOR NON-RP'ABLE TYPE 6 FILES		2533	J058	FILES, ID_SEGMENTS, TRANSPORTABLE, SYSTEM
UTILITY					
CLINK	CONDITIONAL LINK	*	2533	J119	LINK, CI, UTILITY
SNOOP	EXAMINE SWAPPED PROGRAM		2533	J061	DEBUG, SYSTEM, UTILITY
SPINW	LETTER-QUALITY PRINTER SETUP UTILITY		2533	J063	PRINTER, UTILITY, WORD_PROCESSING
STIPP	SOFTWARE TOOLS IN PASCAL PRIMITIVES	*	2533	J009	UTILITY, TOOLS, PASCAL
VAX					
ROGUE	ROGUE GAME FILES FROM VAX		2533	J028	GAMES, VAX
WINDOWS					
SEE	FILE WINDOWS FOR HP-232X TERMINALS		2533	J060	WINDOWS, GRAPHICS, TERMINAL
WORD_PROCESSING					
PATRN	SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS	*	2533	J016	COMPARE, WORD_PROCESSING, EDITOR, TEXT
ROFF1	TEXT FORMATTER STUG 1980 ROFF(FORMAT)	*	2533	J014	WORD_PROCESSING, TEXT, FORMATTING
SPELLR	SPELLING CHECKER		2533	J004	WORD_PROCESSING
SPINW	LETTER-QUALITY PRINTER SETUP UTILITY		2533	J063	PRINTER, UTILITY, WORD_PROCESSING
TEXED	TEXT EDITOR		2533	J114	TEXT, EDITOR, WORD_PROCESSING
WOLF	WORD ORIENTED LINE FORMATTER	*	2533	J128	TEXT, WORD_PROCESSING

SECTION IV

CSL/1000 Release 2533

PROGRAM ABSTRACTS

ROI J001

CALCULATE INTERNAL RATE OF RETURN AND PROFITABILITY

```
 Contribution Name.....: ROI
    Title..............: Calculate Internal Rate of Return and Profitability
    File Names.........:00. Rename Transfer File
                       :01. 'ROI     Submission file
                       :02. &ROI  -- ROI SOURCE
                       :03. #ROI     LOADER COMMANDS
    Operating System...: RTE-IVB
    Language(s)........: FTN4
    Keywords...........: ACCOUNTING
                       : FINANCE
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: McCabe, John J.
               Company..: Hewlett-Packard - SPD
               Street...: 1501 Page Mill Road
               City.....: Palo Alto
               State....: CA
               Country..: U.S.A.
               Zip Code.: 94304
               Phone Number..: (415) 857-3153
 Program Abstract.....:
```

The ROI, Return On Investment, program will calculate the internal rate of return and profitibility index on capital equipment purchases.

The internal rate of return or return on investment is the interest rate that makes the Net Present Value of the investment zero.

The Profitability Index is the ratio of the Net Present Value (at a given Cost of Capital) of the Operating Advantages to the Initial Investment. The Profitability Index will be greater than one if the investment returns more than the cost of capital.

The program allows one to print the results on a line printer in case one's terminal does not have a printer.

```
 Additional Documentation....:
Use transfer file /ROI
Enter RU,ROI   --   The program is interactive.
The program is currently hardcoded to LU 6 for an HP2610 line printer
and LU 56 for an HP7310 line printer;  these are easily changed.
```

TASC1

J002

RTE TASK MONITOR PROGRAM

Contribution Name.....: TASC1
Title.....: RTE TASK MONITOR PROGRAM
File Names.....:00. Rename Transfer File
:01. 'TASC Submission file
:02. &TASC1
:03. &TASC2
:04. &TASC3
Operating System.....: RTE-IVB
Language(s).....: ASMB
: FTN4(X)
Keywords.....: STATUS
: DEBUG
: PERFORMANCE
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: MILLER, BRADFORD W.
Company.....: ACCESS CORPORATION
Street.....: 4815 PARA DR.
City.....: CINCINNATI
State.....: OH
Country.....: USA
Zip Code.....: 45237
Phone Number..: (513) 242-4220
Program Abstract.....:

PROGRAMS TASC1,TASC2 AND TASC3 MONITOR THE STATE OF UP TO TEN TASKS RUNNING UNDER THE RTE-IVB SYSTEM. TASC2 DIRECTLY ACCESSES THE ID SEGMENTS AND OTHER ENTRY POINTS IN TABLE AREA I AND II TO DETERMINE EXACT PROGRAM STATE. THIS STATE IS KEPT IN A TABLE WHICH TASC3 WILL ANALYZE AND REPORT ON.

Additional Documentation....:

TASC2 MUST BE NORMAL BG, WITH TABLE AREA II ACCESS.
TASC1 AND TASC3 HAVE NO SPECIAL LOAD REQIREMENTS.
RU,TASC1,P1 WHERE P1 IS INPUT LU.
THIS WILL BOOT TASC2.
RU,TASC3,P1 WHERE P1 IS INPUT LU WILL PRODUCE REPORT.
TASC1 WILL PROMPT USER FOR A DISK FILE TO STORE TASC2'S PERFOMANCE TABLE. THIS WILL ALSO BE NEEDED BY TASC3 TO PRODUCE THE REPORT.
TASC2 RUNS CONTINUOUSLY. BR,TASC2 WILL CAUSE TASK2 TO OUTPUT ITS INTERNAL TABLE TO THE DISK FILE. THIS CAN BE DONE ON A CONTINUING BASIS, OR TASC2 CAN BE OFF'D AFTERWARD.
EACH PROGRAM ENTERED TO TASC1 IS MONITORED BY TASC2. TASC2 WILL KEEP A TABLE OF THE STATE IT FINDS EACH PROGAM IN AT INTERVALS WHICH ARE DEFINED BY THE USER IN TASC1. TASC3 WILL OUTPUT A REPORT OF THE STATES ENCOUNTERED AND THE PERCENTAGE OF THE ENTIRE TIME THE PROGRAM WAS FOUND IN THIS STATE.
NOTE:: THIS INCLUDES STATE 0 (DORMANT), SO THIS PROGRAM SHOULD BE USED ON A COMPARATIVE BASIS ONLY. ACTUAL EFFICIENCY SHOULD BE DETERMINED BY USING THE HP PERFORMANCE MONITOR.
SHOULD TASC2 BE UNABLE TO DETERMINE A PROGRAM'S STATE, A SIMPLE DIAGNOSTIC WILL BE OUTPUT TO LU 1.

ORCAM J003

DIS-ASSEMBLER FOR FILES IN NEW FORMAT

```
Contribution Name.....: ORCAM
   Title..............: Dis-assembler for files in new format
   File Names.........:00. Rename Transfer File
                      :01. 'ORCAM   Submission file
                      :02. &ORCAM
                      :03. %ORCAM
                      :04. &ABSOL
                      :05. %ABSOL
                      :06. %FF4.F
                      :07. #ORCAM
                      :08. ORCCOM  COMMON BLOCK
                      :09. CORCAM  COMPILE AND LOAD
                      :10. INFORC  INFORMATION ON ORCAM
   Operating System...: RTE-6, RTE-A
   Language(s)........: MACRO
   Keywords...........: 1. INVERSE
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: John Evans
            Company....: Smiths Industries
            Street.....: Winchester Rd.
                       :
            City.......: Basingstoke
            State......: Hampshire
            Country....: England
            Zip Code...:
            Phone Number..:
Program Abstract.......: RU,ORCAM to see the required
                         run string parameters.
Additional Documentation....:
```

SPELLR J004

SPELLING CHECKER

```
Contribution Name.....:  SPELLR
   Title..............:  Spelling checker
   File Names.........: 00. Rename Transfer File
                      : 01. 'SPELR   Submission file
                      : 02. "SPELR   documentation and hints
                      : 03. #SPELR   link command file
                      : 04. &SPELR   source code in FTN7X
                      : 05. %SPELR   relocatable
                      : 06. &SPELB   lib or reqd subr's
                      : 07. %SPELB   relocatable subr's
                      : 08. &IBTWN   required subr's
                      : 09. %IBTWN   relocatable
                      : 10. DICFIL    the dictionary (600 blocks)
   Operating System...:  RTE-6/VM, RTE-A
   Language(s)........:  FORTRAN 77, requires C.83 or later
   Keywords...........: 1. WORD PROCESSING
   External Support Req'd...: C.83 or later, EMA
   If Re-submission, Reason.:
Contributor's Name.....:  F. Stephen Gauss
            Company....:  U.S. Naval Observatory
            Street.....:  34th St. and Massachusetts Ave. NW
            City.......:  Washington
            State......:  DC
            Country....:  U.S.A.
            Zip Code...:  20390
            Phone Number..:  (202) 653-1510
Program Abstract.......:  This is a fast spelling checker.  It allows
                          you to correct words interactively and
                          to add them to the dictionary.  A
                          dictionary of over 3000 words is supplied
                          and space is allocated for over 10000 words.
                          EMA and C.83 are required.  The program
                          reads the dictionary into EMA and then
                          processes text at about 250 words per
                          second on an A-900.
Additional Documentation....:  See the "SPELR file.
```

COMMAND STACK SUBROUTINES

Contribution Name.....: CMDSTACK
Title.....: COMMAND STACK Subroutines
File Names.....:00. Rename Transfer Fileis file
:01. CMDSTACK.SBMT Submission file
:02. CMDSTACK.MAC - Command Stack Mgr
:03. LEFTJUSTIFY.MAC - Delete Lead Spaces
:04. PUTINCOMMAS.MAC - Smaller & Better
:05. APPEND.FTN - Append Strings
Operating System.....: RTE-A, RTE-6, perhaps more
Language(s).....: MACRO, FTN77
Keywords.....: 1. STACK
: 2. STRINGS
: 3. PARSE
External Support Req'd...:
If Re-submission, Reason.:

Contributor's Name.....: Donald A. Wright
Company.....: Interactive Computer Technology
Street.....: 2069 Lake Elmo Avenue North
City.....: Lake Elmo
State.....: MN
Country.....: USA
Zip Code.....: 55042
Phone Number..: 612/770-3728

Program Abstract.....:

CMDSTACK is a subroutine which can be used to give a program a command-stack capability almost exactly the same as that found in EDIT and CI. It has these properties:

1. It allows the same /, /n, and //-/ commands.
2. It can go to any specified, LU, using XLUEX for its I/O.
3. The stack is a character variable passed in by the calling program, and may be any length.
4. Stack entries are variable-length to conserve stack space.
5. There is no fixed limit on the number of saved stack entries.

LEFTJUSTIFY is a subroutine which must somehow have been inadvertently omitted from the Relocatable Library. It has the simple function of deleting leading blanks from a character variable, a very handy function when analyzing keyboard-input strings. It is called by CMDSTACK.

PUTINCOMMAS is just over 1/3 as large as the HP Relocatable Library subroutine of the same name (which got bigger at the A.85 release). It has the same specifications, but works slightly better: it has no limitations on parameter length and it does not delete a trailing comma. Use it when space is tight.

APPEND is a subroutine which appends the nonblank characters of a string to the nonblank characters in another, placing a specified number of blanks between. It does this with no danger of a runtime error regardless of the value or length of either string. It is very handy when generating readable text with strings having variable nonblank lengths.

Additional Documentation....:

Each subroutine is sufficiently documented within its source code.

HIGH-SPEED HELP-FILE FACILITY

Contribution Name	ADDIX, LIST
Title	High-Speed Help-File Facility
File Names	00. Rename Transfer Filee 01. ADDIX.SBMT Submission file 02. ADDIX.FTN - File-indexing Program 03. LIST.FTN - Help-Display Subroutines
Operating System	RTE-A, RTE-6, New File System
Language(s)	FTN77
External Support Req'd	CI
Keywords	1. HELP 2. INSTRUCTION
If Re-submission, Reason	
Contributor's Name	Donald A. Wright
Company	Interactive COmputer Technology
Street	2069 Lake Elmo Avenue North
City	Lake Elmo
State	MN
Country	USA
Zip Code	55042
Phone Number	612/770-3728
Program Abstract	

ADDIX and LIST comprise a mechanism for providing a HELP facility in an interactive program. These characteristics are provided:

1. HELP text file can be extremely large, or very small.
2. HELP text file can also be the manual for the program or system, with no changes whatever.
3. Access to help is VERY fast, using binary search on ordered index.
4. HELP is listed in screenfuls with pauses (same operation as the LI program).
5. Not much program space is required.

ADDIX takes an input file prepared with marked HELP keywords and copies it to a new file with an ASCII index appended. ADDIX is well documented and explains the preparation of the HELP text file.

LIST is called by the program using the HELP facility. It opens the HELP file (first entry only), performs the binary search on the index, then goes directly to the keyword and lists the text following. LIST actually consists of two subroutines, and is well documented.

This is the same HELP facility as is used in the commercial package called CONNECT.

TIME

J007

ANOTHER OP-SYS TIME-SETTING PROGRAM

```
Contribution Name.....: TIME
   Title..............: Another Op-Sys Time-Setting Program
   File Names.........:00. Rename Transfer File
                      :01. TIME.SBMT  Submission file
                      :02. TIME.FTN - Time-setting program
   Operating System...: RTE-A, RTE-6, New File System
   Language(s)........: FTN77
   Keywords...........: 1. TIME
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Donald A. Wright
              Company..: Interactive Computer Technology
              Street...: 2069 Lake Elmo Avenue North
              City.....: Lake Elmo
              State....: MN
              Country..: USA
              Zip Code.: 55042
              Phone Number..: 612/770-3728
Program Abstract.....:
```

TIME is a handy program intended to be used to set the system time at bootup. It has these characteristics:

1. Entries are in ordinary time (no Julian dates, etc.)
2. Last-entered times are saved in a file for next time.
3. Time prompts for year, month, day, hour, and minute separately.
4. When TIME prompts for values, it shows the last-entered value as the default to be accepted of RETURN is entered with no data, often permitting most values to be defaulted.
5. TIME won't let a non-superuser (or non-MANAGER) run it.

Just put RU TIME in the WELCOM(x.CMD) file to have a high level of integrity in system time.

Additional Documentation....:

TIME is well documented in its source.

BINARY FILE-LIST PROGRAM

Contribution Name.....: BLI
Title.....: Binary File-List Program
File Names.....:00. Rename Transfer File
:01. BLI.SBMT Submission file
:02. BLI.FTN - Binary File Lister
Operating System.....: RTE-A, RTE-6, New File System
Language(s).....: FTN77
Keywords.....: 1. LIST
: 2. BINARY
External Support Req'd...:
If Re-submission, Reason.:

Contributor's Name.....: Donald A. Wright
Company.....: Interactive Computer Technology
Street.....: 2069 Lake Elmo Avenue North
City.....: Lake Elmo
State.....: MN
Country.....: USA
Zip Code.....: 55042
Phone Number..: 612/770-3728

Program Abstract.....:

Problem: The LI program provided with the New File System will not list binary files (or any files) to an LU other than the local terminal, nor will it list records longer than 256 characters.

BLI lists files in exactly the same binary format as is used by LI, but has these advantages:

1. It allows specification of the output device.
2. It permits reading and listing records of up to 8192 characters, expandable to over 30,000 characters per record if necessary.

BLI will read from a device (e.g. tape drive) as well as a file. It does permit specifying a start record and an end record for the source, whether a file or a device.

Additional Documentation....:

BLI is fairly well documented in its source. If invoked with no parameters it will display a USAGE: help line.

SOFTWARE TOOLS IN PASCAL PRIMITIVES

```
Contribution Name.....: stipp
   Title..............: Software Tools In Pascal Primitives.
   File Names.........: 00. Rename transfer file.
                      : 01. stipp.sbmt - Submission file.
                      : 02. &stipp - Pascal Primitives for HP-1000.
   Operating System...: RTE-6/VM rev: 2310.
   Language(s)........: Pascal rev: 2326.
   Keywords...........: 1. Utility
                      : 2. Tools
                      : 3. PASCAL
                      : 4.
                      : 5.
   External Support Req'd...: Copywritten material from Addison-Wesley.

                              The Book: Software Tools in Pascal
                                        Kernighan & Plauger
                                        Addison-Wesley, 1981
                                        ISBN: 0-201-10342-7
                              The Tape: Addison_Wesley part # 10343
                                        Cost is about $60.
   If Re-submission, Reason.:
Contributor's Name.....: Rich Drescher
             Company...: 3M - Imaging Systems Division
             Street....: 1999 Mt. Read Blvd.
                      :
             City......: Rochester,
             State.....: N. Y.,
             Country...:
             Zip Code..: 14615
             Phone Number..: (716)-458-2920
             Telex.....:
Program Abstract.....: Library of primitives with a driver.
```

Export version of Software Tools in Pascal Primitives.

All unmodified copywritten material has been removed. However, the headers to the code has been retained in order to help place the procedures & functions in their proper order once they are bought from Adison-Wesley.

This file contains the primitives needed to implement the copywritten Software Tools in Pascal on HP-1000.

```
Additional Documentation....: The book and tape from Addison-Wesley.
                              The origional Software Tools in ratfor.
```

PRINT PRIME NUMBERS BETWEEN LIMITS ENTERED

Contribution Name	Prime
Title	Print prime numbers between limits entered.
File Names	00. Rename transfer file.
	01. prime.sbmt Submission file.
	02. &prime Fortran source.
	03. %prime Relocatable.
Operating System	RTE-ALL
Language(s)	Fortran-77 + Mil-Std-1753.
Keywords	1. DATABASE
	2. Numeric
	3. Mathmatics
External Support Req'd	None
If Re-submission, Reason	
Contributor's Name	Rich Drescher
Company	3M
Street	1999 Mt. Read Blvd.
City	Rochester
State	N. Y.
Country	
Zip Code	14615
Phone Number	(716)-458-2920
Telex	
Program Abstract	

1. Utility
   For usage when creating an Image Master data set in order to set the 'capacity' to a prime number.
2. Usage
   Ru, prime
   Program prompts for min, max values & output LU nr.
   Enter min & max limits for approximent 'capacity' of Data Set.
   Accepts integer values 1..integer*4.
   Program prints all prime numbers between range given to the LU entered.
3. Bugs/Deficiencies
   Numbers must be positive.
   Not exactly blinding fast for large numbers.
   LU must be entered and must be in user SST.

Additional Documentation:

SOFTWARE TOOLS 'ARCHIVER'

Contribution Name	ar
Title	Software Tools 'archiver'
File Names	00. Rename transfer file. 01. ar.sbmt - Submissions file. 02. ar.ar - The ar archive. 03. ar.r - ratfor source. 04. ar.ftn fortran 05. ar.rel relocatable 06. ar.doc allready roff'ed documentation
Operating System	RTE-6, RTE-A rev: 2340
Language(s)	ratfor - STUG 1980 version.
Keywords	1. ARCHIVE 2. Maintenance 3. 4. 5.
External Support Req'd	
If Re-submission, Reason	CI & FMGR file compatable.
Contributor's Name	Rich Drescher
Company	3M - Imaging Systems Division
Street	1999 Mt. Read Blvd.
City	Rochester,
State	N. Y.,
Country	
Zip Code	14615
Phone Number	(716)-458-2920
Telex	
Program Abstract	Combines several files into one for housekeeping efficiency. Commonly used in a Software Tools shop.

link with libraries: fnewf.HP and rcl.r + fmp.r from the rc contribution.

Additional Documentation....: UNIX manuals on 'ar'.

1984 RC, RAT77, RATP1, RATP2 & 1980 RAT4

```
Contribution Name.....: rc
   Title..............: 1984 rc, rat77, ratp1, ratp2 & 1980 rat4
                        Joe Sventek's Beta ratfor from STUG Toy Tape
   File Names.........: 00. Rename transfer file.
                      : 01. rc.sbmt    - Submissions file.
                      : 02. rc.r       - 1984 STUG ratfor (Hollerith).
                      : 03. rc.f       -
                      : 04. rc.o       -
                      : 05. r77.r      - 1984 STUG ratfor (Character*77).
                      : 06. r77.f      -
                      : 07. r77.o      -
                      : 08. rp1.r      - 1984 STUG ratfor (Data array).
                      : 09. rp1.f      -      First pass of two.
                      : 10. rp1.o      -
                      : 11. rp2.r      - 1984 STUG ratfor (Data array).
                      : 12. rp2.f      -      Second pass of two.
                      : 13. rp2.o      -
                      : 14. rat4.r     - 1980 STUG ratfor (Hollerith).
                      : 15. rat4.f     -
                      : 16. rat4.o     -
                      : 17. rcl.ar     - rc library & primitives.
                      : 18. rcl.f      -
                      : 19. rcl.o      -
                      : 20. ds.ar      - /dsmem/ EMA library archive.
                      : 21. ds.f       -
                      : 22. ds.o       -
                      : 23. fmp.ar     - IO using CI FMP calls.
                      : 24. fmp.f      -    Currently used for my
                      : 25. fmp.o      -    AR tool only.
                      : 26. ratdef     - PUT ratdef in /Libraries.
                      : 27. common     - ratfor common blocks.
                      : 28. rat4.doc   - 1980 ratfor
                      : 29. rc.doc     - 1984 rc, rat77, rat_pass_1_&_2
                      : 30. primer     - ratfor tutorial.
                      : 31. libsym.r   - from the Toy's Tape. Not used.
                      : 32. remarksym.r "    "   "    "    "   "
                      : 33. rtsg.d     - LBL RTSG standard RATDEF file
                                       - for VAX, etc. Toy Tape file 2.
   Operating System...: RTE-6, RTE-A rev: 2340
   Language(s)........: ratfor is written in ratfor.
   Keywords...........: 1. Pre-processor
                      : 2. Tools
                      : 3. Compiler
   External Support Req'd...:
   If Re-submission, Reason.: These are new versions from the STUG Toy Tape
                              released in 1984. These versions have
                              enhanced capabilities and performance.
                            The re-submission of 1980 rat4 is both FMGR
                              and CI, RTE-6 and RTE-A compatable.
Contributor's Name.....: Rich Drescher
            Company....: 3M - Imaging Systems Division
            Street.....: 1999 Mt. Read Blvd.
                       :
            City.......: Rochester,
            State......: N. Y.,
            Country....:
            Zip Code...: 14615
            Phone Number..: (716)-458-2920
            Telex......:
Program Abstract.....:
```

Ratfor is a pre-processor that provides Fortran with control syntax and enhancements (such as macro expansion) similar to the language C. Of greater significance is it's proven ability as a language for the development of portable text-oriented software.

(cont)

The 1984 (Beta) versions of one of the following: rc, rat77, rat-pass1 and pass2 are required to compile the ratfor public domain versions of:

1. LISP - language.
2. LEX - lexical analyzer generator.
3. YACC - Yet Another Compiler-Compiler. Parser generator.

as well as the copywritten Columbia Univ. KERMIT protocol in ratfor.
Note: The copyright is to protect the protocol from those who would distribute KERMIT for profit.

While the above programs abe being submitted, none are ready for use on HP-1000. They are VAX and HP-3000 versions.

See the rc.doc file for an explanation of the different Beta versions of ratfor, primarally with regard to internally passing data and the resultant potential capabilities.

Also included is a FMGR and CI file compatable version of 1980 ratfor that is required for public domain programs on the STUG Basic tape (as I haven't been able to get RATFIX working.)

Ratfor was origionally introduced by Kernighan and Plauger in the book Software Tools, which has also been published in Pascal. In both cases the 'tools' concept advocates a programming structure, analysis and technique that transends the language.

Ratfor was developed and is implemented such that it is a portable language. It has been used to address the problem of people portability across heterogeneous computer enviroments. This work is in the public domain and available from the STUG for VAX/VMS, RSX-11M, Tops-20, UNIX 4.1 BSD, IBM/CMS, IBM/MVS, Univax 1100, Sel MPX, and HP-1000 IVB + 6/VM. Versions for HP-3000, CP/M and MS/DOS have been commercially introduced. People portability is addressed in that a UNIX like SHELL (OS) is usually implemented for the above systems togeather with as many as 50 common utilities.

See also: The LBL RTSG library rlib.ar in the LISP archive from the STUG Toy's Tape. This library contains many procedures that I have not yet added to my library. It also has many VAX VMS assembly language primitives.

The YACC and LEX support libraries for portable bit string routines, dynamic memory routines, and more.

CSL-2433 I055-- SWTOOL for the full STUG Basic Tape as files F1..F16 and Larry Dwyer's primitives, which are to be prefered over mine by those using only FMGR files or who do not have EMA.

Note:

1. I use the Hollerith versions of ratfor & rc. Programs compiled with rat77 or ratpass1 will need appropriate versions of REMARK.
2. Link all versions EB with libraries rcl.lib, ds.lib, fnewf.lib
3. Put RATDEF in /Libraries.
4. Type 'character' is Software Tools character. R1 format. Type 'CHARACTER' or 'Character' is Fortran-77 character*. All filenames must be of this type.
5. Maximun number of files open at the same time is 7 disk plus 3 LU's. Dynamic memory /dsmem/ is set to 30,000 in EMA.
6. Does not support random access file io. CSL-2433-I055-- does.
7. Is about as slow as the HP Pascal compiler.

(cont)

8. 1984 versions produce better Fortran than the 1980 version.
9. Contrary to statements within the documentation files, this version of rat77 does use /libraries/RATDEF for macros.
10. Do not use file extensions for RATDEF. That activates some undocumented logic regarding SUFFEX & PATH names.
11. The tools AR and ROFF(format) are pretty basic when working with material written in a Software Tools shop.

Additional Documentation....: Software Tools by Kernighan & Plauger from Addison-Wesley.

Documentation and tutorial files.

UNIX manuals (rc, file re-direction, etc).

Software Tools Users Group
140 Center St.
El Segundo, Calif. 90245
(213)-322-2574

Other fortran pre-processors: FLECS on CSL-2433-I044--
efl on UNIX systems

Pre-processors for any language: 'macro' in the Software Tools (like the ratfor & C macro expander.)
m4 on UNIX systems.

Other techniques for portability: KARRTN fortran primitives. public domain.
PFORT verifier.
These techniques were used for the development of the STAT-80 package and may be better than ratfor for the development of portable mathametical oriented software.

LISP INTERPRETER FROM STUG TOY'S TAPE

Contribution Name	lisp
Title	lisp interpreter from STUG Toy's Tape.
	This material is in the Public Domain.
	It will NOT run on the HP1000 as is.
File Names	00. Rename transfer file.
	01. lisp.sbmt - Submission file.
	02. lisp.ar - Lisp archive. Toy' Tape file 11.
	03. readme.lisp - File 1 on the Toy's Tape.
Operating System	VAX under VMS and Software Tools environment.
Language(s)	1984 (Beta version of) ratfor.
Keywords	1. Interpreter
	2. Language
	3.
	4.
	5.
External Support Req'd	Beta ratfor, ratfor library, AR, roff(format)
If Re-submission, Reason.	
Contributor's Name	Rich Drescher
Company	3M - Imaging Systems Division
Street	1999 Mt. Read Blvd.
City	Rochester,
State	N. Y.,
Country	
Zip Code	14615
Phone Number	(716)-458-2920
Telex	
Program Abstract	The language LISP.

Origionally developed on an HP-1000 by C. Doulan & D. Martin.
Since moved, modified for VAX/VMS and possably enhanced by unknown authors. This material is in the public domain.

Following is from the Toy' Tape readme file:

> FILE 11 -- LISP ARCHIVE
>
> And they said it couldn't be done! A reasonably well-endowed LISP interpreter written (almost) entirely in RatFor. Originally developed for an HP-1000 minicomputer (of all things), this LISP has been residing of late in the memory-rich VAX/VMS environment. The basic overlaying strategy from the HP has been retained, however, so porting it back down to a smaller machine shouldn't be too terrible. If you're not running on a VAX, you'll need to write equivalents for the recursion-handling routines in "rcrsv.mar". Since LISP requires quite a few primitives and library routines you may not have on your local system, we have included our entire runtime library as archive "rlib.ar" in the LISP archive. Note: Please don't become too attached to this particular dialect of LISP. When COMMON LISP becomes available, we plan to rework this one to be as compatible as possible.

Additional Documentation....:

TEXT FORMATTER STUG 1980 ROFF(FORMAT)

Contribution Name	roff1
Title	Text Formatter STUG 1980 roff(format).
File Names	00. Rename transfer file.
	01. roff1.sbmt - Submissions file.
	02. roff1.ar - Full archive.
	03. &roff1 - Fortran with include files.
	04. %roff1 - Relocatable
	05. "roff1 - Documentation allready roff'ed
Operating System	RTE-6, RTE-A
Language(s)	ratfor (1980 release)
Keywords	1. Word Process
	2. Text
	3. Formatting
External Support Req'd	ratfor library 'rcl'.
If Re-submission, Reason	FMGR & CI files compatable.
	Needed for printing STUG documentation.
Contributor's Name	Rich Drescher
Company	3M - Imaging Systems Division
Street	1999 Mt. Read Blvd.
City	Rochester,
State	N. Y.,
Country	
Zip Code	14615
Phone Number	(716)-458-2920
Telex	
Program Abstract	Text formatter used for STUG documentation.

Bugs/Deficiencies: Has problems with underlining and bold print.
Does not understand the 1984 roff2 tab command.

Advantages: Works better than my version of roff2.

Additional Documentation....: nroff on UNIX systems.

SORT - MERGE FROM 1980 STUG BASIC TAPE

```
Contribution Name.....: smerge
   Title..............: sort - merge from 1980 STUG Basic tape.
   File Names.........: 00. Rename transfer file.
                      : 01. smerge.sbmt   - Submission file.
                      : 02. smerge.ar - Full STUG archive.
                      : 03. smerge.f  - Fortran with include files.
                      : 04. smerge.o  - Relocatables
                      : 05. smerge.doc - Roff'ed documentation.
   Operating System...: RTE-6, RTE-A
   Language(s)........: ratfor (1980 version)
   Keywords...........: 1. sort
                      : 2. merge
                      : 3.
                      : 4.
                      : 5.
   External Support Req'd...: ratfor library 'rcl'
   If Re-submission, Reason.: FMGR and CI file system compatable.
                              Previous versions have not been ready to run.
Contributor's Name.....: Rich Drescher
              Company..: 3M - Imaging Systems Division
              Street...: 1999 Mt. Read Blvd.
                      :
              City.....: Rochester,
              State....: N. Y.,
              Country..:
              Zip Code.: 14615
              Phone Number..: (716)-458-2920
              Telex....:
Program Abstract.....:
```

This is the only sort program that I've been able to find
that runs on HP-1000 & sorts more that 32767 records.
It has been used with a dictionary of >42600 records.

ORIGIONAL NAME

sort - sort and/or merge text files

SYNOPSIS

```
sort [-bdfimr] [+sn] [file] ...
```

DESCRIPTION

Sort sorts lines of all the named files together and writes the result on the standard output. If no files are given or the filename '-' appears, standard input is read. The sort key is an entire line. Default ordering is alphabetic by characters as they are represented in ASCII format. The ordering is affected by the following flags, one or more of which may appear.

-b Leading blanks are not included in keys.
-d 'Dictionary' order: only letters, digits and blanks are significant in comparisons.
-f Fold all letters to a single case.
-i Ignore all nonprinting nonblank characters.
-m Merge only, the input files are already sorted.
-r Reverse the sense of the sort
+sn Sort according to the subfield starting on column n

link it EB with library 'rcl' in the 'rc' submission and fnewf.HP

```
Additional Documentation....: The book Software tools.
                              smerge.doc
                              'sort' - on UNIX systems
```

PATRN J016

SUB-LINEAR & LINEAR PATTERN MATCHING FUNCTIONS

Contribution Name.....	patrn
Title.....	Sub-linear & linear Pattern matching functions.
File Names.....	00. Rename transfer file.
	01. patrn.sbmt - Submission file.
	02. patrn.ar - Software Tools Archive of the - Boyer_Moore sub-linear search. - Knuth, Morris, Pratt search. - Driver to test the functions. - Documentation.
Operating System.....	RTE-6, RTE-A
Language(s).....	ratfor - 1984 beta version from STUG.
Keywords.....	1. Compare
	2. Word Process
	3. Editor
	4. Text
External Support Req'd...	Software Tools Enviroment. 1980 ratfor from CSL 2433 (FMGR only). 1980 or 1984 ratfor from STUG.
If Re-submission, Reason.:	
Contributor's Name.....	Rich Drescher
Company.....	3M - Imaging Systems Division
Street.....	1999 Mt. Read Blvd.
City.....	Rochester,
State.....	N. Y.,
Country.....	
Zip Code.....	14615
Phone Number..	(716)-458-2920
Telex.....	
Program Abstract.....	Fastest known pattern matching algorithms for non-binary alphabets. Excellent for writting a portable 'grep' and for use with 'find' commands within portable file listing programs.
Additional Documentation....	In the archive and literature referances.

DBEXP J017

EXPLAIN DATA-BASE FORMAT

```
Contribution Name.....: DBEXP
   Title..............: Explain data-base format
   File Names.........: 00. Rename transfer file
                      : 01. 'DBEXP Submission file
                      : 02. &DBEXP Source file
                      : 03. &DBERR Source file
                      : 04. #DBEXP Loader file
   Operating System...: RT6VM
   Language(s)........: FTN77
   Keywords...........: 1. Help
                      : 2. Image
                      : 3. DataBase
   External Support Req'd...: IMAGE/1000 92069 LIBRARY
   If Re-submission, Reason.:
Contributor's Name.....: HAL HARP
            Company....: NAVWPNSUPPCEN
                      : BLDG. 41NE
                      : CODE 70613
            City.......: CRANE
            State......: IN
            Country....: USA
            Zip Code...: 47522
            Phone Number..: 812-854-1034
Program Abstract.....: 7/26/84
```

THIS PROGRAM GIVES A COMPLETE EXPLANATION OF AN IMAGE/1000 DATA BASE.

EXAMPLE

TO RUN

```
  RU,DBEXP OR DBEXP

Enter data-base name:+sc  STAN:99
Enter level  MOM
```

THE LOADER FILE CONTAINS AN ENTRY LI,$DBMSY, THIS NAME MAY HAVE TO BE CHANGED OR OMITTED DEPENDING ON YOUR CONFIGURATION. $DBMSY IS A LINDXED VERSION OF THE IMAGE LIBRARY: %DBMS,%LOCAL,%NO\DS

THE PROGRAM &DBEXP AND COMPANION DATA BASE ERROR PROGRAM &DBERR WAS WRITTEN BY RICK CALENTINE ,NAVWPNSUPPCEN CRANE,IN.

```
Additional Documentation....: IMAGE/1000 92069 MANUALS
```

CSDEF J018

DEFINE CS/80 DISC TRACK MAP

Contribution Name	CSDEF
Title	DEFINE CS/80 DISC TRACK MAP
File Names	00. RENAME FILE
	01. 'CSDEF -SUBMISSION FILE
	02. &CSDEF -SOURCE (FTN7X)
	03. %CSDEF -RELOC.
Operating System	RTE-6
Language(s)	FORTRAN 77
Keywords	1. SYSTEM TABLES
	2. DISC
External Support Req'd	REV. 2340
If Re-submission, Reason	ENHANCEMENT
Contributor's Name	DONALD L. CLAPP
Company	ELI LILLY AND CO.
Street	307 E. MCCARTY ST.
City	INDIANAPOLIS
State	INDIANA
Country	US
Zip Code	46285
Phone Number	317-261-4458

Program Abstract:

THIS PROGRAM IS TO ASSIST THOSE PERSONS ADDING A CS/80 DISC TO THEIR SYSTEM ON A SECOND CONTROLLER. THE TRACK MAP TABLE MUST BE BUILT BY THE USER. THE STARTING BLOCK ON THE DISC MUST BE SPECIFIED AS 2 OR 3 WORD INTEGER VALUES. NEITHER THE ASSEMBLER NOR MACRO WILL DEFINE VALUES THIS WAY. THIS PROGRAM DOES THE ARITHMATIC AND DISPLAYS THE RESULTS IN OCTAL.
THIS EDITION OF THE PROGRAM WILL ALSO PRODUCE A MACRO SOURCE FILE OF THE LAYOUT THAT YOU DEFINE.

Additional Documentation....:

B1D WHETSTONE BENCHMARK FOR HP 1000

Contribution Name.....: B1D
Title.....: B1D Whetstone Benchmark for HP 1000
File Names.....: 00. Rename Transfer File
: 01. 'B1D77 Submission File
: 02. &B1D77
Operating System.....: RTE-6/VM and RTE IVB
Language(s).....: FORTRAN77, Easily modified for FTN4X
Keywords.....: 1. Benchmark
: 2. FORTRAN
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Glen A. Mortensen
Company.....: Intermountain Technologies Inc.
Street.....: P. O. Box 1604
: 1400 Benton Street
City.....: Idaho Falls
State.....: Idaho
Country.....: USA
Zip Code.....: 83403-1604
Phone Number..: 208-523-7255
Telex.....: None
Program Abstract.....: This is a FORTRAN77 version of the B1D Whetston Benchmark. The Whetstone Benchmark is a synthetic program that was developed by Harry J. Crunow in London in the middle 70's using data accumulated by Brian A. Whichmann. Article on this benchmark was published in the INTERFACE/1000 magazine in the December '83/January '84 issue. Output from the ITI computer is given here

```
BENCHMARK B1D EXEC TIME IS   2.2438 MINUTES
LOOP      =     1
COMPILER  =    FTN7X
OP SYSTEM = RTE-6/VM
COMPUTER  = 2100-MXE
SPEED =       7.43 THOUSANDS OF WHETSTONE INSTRUCTIONS/SEC
ALL DONE
```

Additional Documentation....: None

DISPLAY GASP INITIALIZATION INFORMATION

```
Contribution Name.....: JBINF
   Title..............: DISPLAY GASP INITIALIZATION INFORMATION
   File Names.........: 00. RENAME FILE
                      : 01. 'JBINF   -SUBMISSION FILE
                      : 02. &JBINF   -SOURCE   (FTN7X)
                      : 03. %JBINF   -RELOC.    (OLDRE)
   Operating System...: RTE-II --- RTE-6
   Language(s)........: FORTRAN 77
   Keywords...........: 1. HELP
                      : 2. SPOOLING
                      : 3. INSTRUCTION
                      : 4.
                      : 5.
   External Support Req'd...: NONE
   If Re-submission, Reason.:
Contributor's Name.....: DONALD L. CLAPP
              Company..: ELI LILLY AND CO.
              Street...: 307 E. MCCARTY ST.
                      :
              City.....: INDIANAPOLIS
              State....: INDIANA
              Country..: US
              Zip Code.: 46285
              Phone Number..: 317-261-4458
Program Abstract.....:
THIS PROGRAM IS TO ASSIST THOSE PERSONS WITH POOR MEMORYS THAT
CANNOT REMEMBER THE PARAMETERS THEY USED WHEN THEY INITIALIZED
THE SPOOLING SYSTEM WITH GASP.   THE PROGRAM DISPLAYS THE PARAMETERS
USED IN THE SAME FORM AS WHEN ORIGINALLY ENTERED.
Additional Documentation....:
```

CMPAR J021

COMPARE PARAMETERS IN FORTRAN SUBROUTINES

Contribution Name.....:CMPAR
Title.....:Compare Parameters in Fortran Subroutines
File Names.....:00. Rename Transfer File
:01. 'CMPAR Submission File
:02. &CMPAR Ftn7x Source
:03. &CMSUB Ftn7x Source
:04. &CHSUB Ftn7x Source
:05. #CMPAR Link Command File
Operating System.....:RTE-6/VM
Language(s).....:Fortran 77
Keywords.....: 1. COMPARE
: 2. Fortran
: 3. Debug
: 4. Cross Reference
External Support Req'd...:
If Re-submission, Reason.:

Contributor's Name.....:Robert E. DeNuto, Jr.
Company.....:GHA Lock Joint, Inc.
Street.....:150 N. Main St.
:PO Box 1000
City.....:Wharton
State.....:NJ
Country.....:
Zip Code.....:07885
Phone Number..:(201) 366-2400
Telex.....:

Program Abstract.....:

This submission is a utility to check the parameter passage between calling and called routines. It gets a data type listing from the Ftn7x compiler for both files, and performs a cross check.

Discrepancies in parameter passing between "main" and "subroutine" have been the cause of many debugging hours spent. This program checks both parameter name and parameter type, and produces a list stating each parameter and it's data type. This is performed for each call in a "main" to the "subroutine".

The program depends on the list file produced by Ftn7x to have the format of rev 2340.

Additional Documentation....:

Ftn7x must be "RP'ed" before running.

CHECK DISC MAP FOR MAC AND ICD DISCS

```
 Contribution Name.....: TRKCX
    Title..............: CHECK DISC MAP FOR MAC AND ICD DISCS
    File Names.........: 00. Rename Transfer File
                       : 01. 'TRKCX Submission File
                       : 02. &TRKCX   -SOURCE   (FTN7X)
                       : 03. %TRKCX   -RELOC.    (OLDRE)
                       : 04. &MOVEW   SOURCE     MACRO
                       : 05. %MOVEW   RELOC
                       : 06. &BRPLC   MACRO
                       : 07. %BRPLC   RELOC
                       : 08. &.BRP    MACRO
                       : 09. %.BRP    RELOC
    Operating System...: RTE-II --- RTE-6
    Language(s)........: FORTRAN 77
    Keywords...........: 1. TRACK MAP
                       : 2. DISC
                       : 3. SYSTEM TABLES
                       : 4.
                       : 5.
    External Support Req'd...: NONE
    If Re-submission, Reason.: ENHANCEMENTS
 Contributor's Name.....: DONALD L. CLAPP
               Company..: ELI LILLY AND CO.
               Street...: 307 E. MCCARTY ST.
                        :
               City.....: INDIANAPOLIS
               State....: INDIANA
               Country..: US
               Zip Code.: 46285
               Phone Number..: 317-261-4458
 Program Abstract.....:
C TRKCX IS A PROGRAM THAT ACCEPTS THE TRACK MAP ENTRIES FROM A
C    SYSTEM GENERATION LISTING AND THEN A SUMMARY OF THE DISK LAYOUT
C    TO THE TERMINAL OR A PRINTER.   IN ADDITION, THE TRACK MAP IS
C    CHECKED FOR CONFLICTS SUCH AS TOO MANY CYLINDERS USED FOR THE
C    DRIVE TYPE, TOO MANY HEADS OR OVERLAPPING SPARES OR DISK AREAS.
C
C THE PROGRAM ALLOWS ENTERING UP TO 64 ENTRIES (MAXIMUM FOR A SYSGEN)
C    AND THEN ALLOWS CHECKING/EDITING OF THE MAP.  IN ADDITION, THE
C    ACTUAL SYSTEM LU'S MAY BE ADDED SO THE LISTING IS RELATIVE TO
C    DISK LU'S AND NOT JUST SUBCHANNELS.
C    THIS EDITION OF THE PROGRAM WILL READ A GENERATOR ANSWER FILE
C    FOR THE INITIAL DEFINITIONS OF THE DISC.
 Additional Documentation....:
```

APPLE J023

DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE

```
Contribution Name.....: APPLE
   Title..............: DOWN-LOAD FILE AND RECOGNIZE XON/XOFF HANDSHAKE
   File Names.........: 00. Rename Transfer
                      : 01. 'APPLE      - SUBMISSION FILE
                      : 02. *APPLE      - COMPILE AND LOAD TRANSFER F
                      : 03. &APPLE      - SOURCE FILE
                      : 04. "APPLE      - ADDITIONAL DOCUMENTAION
   Operating System...: RTE-6/VM
   Language(s)........: FTN77
   Keywords...........: 1.  DOWN-LOADING
                      : 2.  MODEM
                      : 3.  COMMUNICATIONS
                      : 4.  PC
   External Support Req'd...: DVW00 AND BACI CARD (12966A)
   If Re-submission, Reason.:
Contributor's Name.....: GEORGE SANTEE
            Company....: INTERMOUNTAIN TECHNOLOGIES, INC.
            Street.....: 1400 BENTON STREET
                      : P.O. BOX 1604
            City.......: IDAHO FALLS
            State......: IDAHO
            Country....: USA
            Zip Code...: 83403-1604
            Phone Number..: (208) 523-7255
            Telex......:
Program Abstract.....: THE APPLE PROGRAM ALLOWS DOWN-LOADING A FILE
FROM THE HP1000 TO A PC WHOSE TERMINAL EMULATION PROGRAM USES THE XON/XOFF
HANDSHAKE.  A MODEM CONNECTED TO THE HP1000 WITH A BACI CARD USING DRIVER
DVW00 IS REQUIRED.
Additional Documentation....: "APPLE
```

ASUBS J024

ASSEMBLY LANGUAGE SUBROUTINES

```
Contribution Name.....: ASUBS
   Title..............: Assembly Language Subroutines
   File Names.........: 00. Rename Transfer File.
                      : 01. 'ASUBS - Submission file.
                      : 02. &ASUBS - Source file.
                      : 03. $ASUBS - Lindxed library.
   Operating System...: RTE-6/VM
   Language(s)........: MACRO
   Keywords...........: 1. Subroutine
                      : 2. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: WQEC Code 331
            City.......: Seal Beach
            State......: CA.
            Country....: USA
            Zip Code...: 90740
            Phone Number..: (213) 594-7351
            Telex......:
Program Abstract.....:
```

This package of subroutines have appeared before in these pages but since they are needed by other contributions I have submitted they are included here. Some of the routines are new and some have been revised. Look at the source listing to see what's here.

Note: you will probably have to extract the module you want, rather than trying to assemble the whole library at once.

Additional Documentation....:

INDEXES FOR BIND — J025

BACKS

Contribution Name	Indexes for binder backs
Title	Backs
File Names	00. Rename Transfer File
	01. 'BACKS Submission File
	02. &BACKS
	03. %BACKS
	04. #BACKS
	05. "BACKS
Operating System	RTE-6/VM
Language(s)	Fortran77
Keywords	1. Text
	2. Label
	3. Graphics
External Support Req'd	Graphics/1000-II (DGL), Plotter HP-9872X
If Re-submission, Reason	
Contributor's Name	JUHA KOLJONEN & KARI KESKIIVARI
Company	NESTE OY , RESEARCH CENTRE
Street	
City	SF-06850 KULLOO
State	
Country	FINLAND
Zip Code	
Phone Number	358-15-693400
Program Abstract	
Additional Documentation	See program listing or file "BACKS

DAILY FC SYSTEM — J026

BAKUP

Contribution Name	Daily FC system backup
Title	BAKUP
File Names	00. Rename Transfer Fileile
	01. 'BAKUP Submission file
	02. &BAKUP Program source
	03. "BAKUP Documentation file
Operating System	RTE-6VM
Language(s)	FTN7X
Keywords	1. BACKUP
	2. ARCHIVE
External Support Req'd	
If Re-submission, Reason	
Contributor's Name	John A. Price
Company	Hershey Foods Corporation Technical Center
Street	1025 Reese Ave PO Box 805
City	Hershey
State	PA
Country	USA
Zip Code	17033-0805
Phone Number	(717) 534-5239
Program Abstract	This is a time-scheduled program which automatically backs up selected LUs each working day.
Additional Documentation	See file "BAKUP

BATCH INPUT FROM DISC OR LU

Contribution Name	BATCH
Title	BATCH INPUT FROM DISC OR LU
File Names	00. Rename Transfer File 01. 'BATCH Submission file 02. &BOPEN 03. &BDONE 04. &BSKIP 05. &BREAD 06. &BINIT 07. [BCOM INCLUDE file 08. *BATCH Merge command file
Operating System	RTE-IVB or RTE-6/VM
Language(s)	ASMB, FTN4X
Keywords	1. BATCH 2. INPUT
External Support Req'd	'NGLIB' LIBRARY
If Re-submission, Reason	
Contributor's Name	R. Niekamp
Company	Hewlett Packard Company
Street	1001 E. 101st Terrace
City	Kansas City
State	Missouri
Country	USA
Zip Code	64131
Phone Number	(816) 941-0411
Program Abstract	A collection of routines to provide an easy method of modifing interactive programs to run without an operator.
Additional Documentation	Use MERGE with the .BATCH file to create a library $BATCH. [BCOM is an Include file for the Fortran routines. It must match the space reserved in &BINIT.

ROGUE J028

ROGUE GAME FILES FROM VAX

Contribution Name.....	ROGUE
Title.....	ROGUE game files from VAX
	Rogue, in Vax Fortran with braindamaged files:
File Names.....	00. Rename Transfer File
	01. 'ROGUE Submission file
	02. ATACK 11 size
	03. COMMON 20
	04. DAMAGE 5
	05. DESC 12
	06. DIG3 21
	07. DRAWCO 23
	08. DRAWMF 6
	09. DRAWMP 8
	10. ERROR 1
	11. FID 20
	12. GETMAP 22
	13. IMP6 22
	14. INIT 33
	15. INVEN 8
	16. LIB 33
	17. LOCATE 4
	18. MAIN 1
	19. MONS 27
	20. MOVE 11
	21. OLDRAW 8
	22. OLDSCR 12
	23. PICKUP 14
	24. POTION 9
	25. PUTMON 11
	26. RIP 7
	27. ROGUE 4 <-- The README file
	28. ROGUEC 1
	29. ROGUEF 55
	30. SAVE 15
	31. SCR 12
	32. SCROLL 26
	33. SLEEP 1
	34. STICKS 27
	35. T 11
	36. TALLY 3
	37. TEMP 12
	38. TERMIO 35
	39. TTYOUT 1
	40. WER 1
Operating System.....	VAX
Language(s).....	VAX Fortran
Keywords.....	1. Games
	2. VAX
External Support Req'd...	You will need to rework these routines
If Re-submission, Reason.:	
Contributor's Name.....	JACK MCALISTER
Company.....	TDC
	621 Six Flags Drive
City.....	Arlington
State.....	Texas
Country.....	USA
Zip Code.....	76011
Phone Number..:	817-861-7447
Program Abstract.....	ROGUE game captured from VAX
Additional Documentation....	See file ROGUE.

FMGR CARTRIDGE CLEAN UP PROGRAM

```
Contribution name.....: CLEAN
   Title..............: FMGR cartridge clean up program.
   File Names.........: 00. Rename Transfer File.
                      : 01. 'CLEAN - Submission file.
                      : 02. &CLEAN - Source file.
                      : 03. #CLEAN - Link command file.
   Operating System...: RTE-6/VM, RTE-A
   Language(s)........: MACRO
   Keywords...........: 1. Extents
                      : 2. Files
                      : 3. Clean Up
   External Support Req'd...: $FMP6 library.
   If Re-submission, Reason.: Made compatible with CI file system.
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: WQEC Code 331
            City.......: Seal Beach
            State......: CA.
            Country....: USA
            Zip Code...: 90740
            Phone Number..: (213) 594-7351
Program Abstract.......:
```

This program will perform the following disc clean-up operations on FMGR cartridges from the options selected in the run string:

1. Purge files with zero security codes.
2. Purge compiler list files. (Starts with single quote)
3. Remove extents from type 3 and up files.
4. Reclaim unused disc space in type 3 & 4 files.
5. Change the file size of type 3 and up for speed.

All mounted cartridges will be processed unless a negative logical unit number is given in the run string.

Additional Documentation....:

Example run string:

```
CI> Clean,UN,PU,PL,RE,-25
```

The 'PU' option will ask if you want to purge the file name displayed. Answer 'Y' or 'N' or /E to terminate the option for that cartridge. The 'AP' will purge all files with zero security codes without asking. 'PU' and 'AP' are mutually exclusive.

Compiler list files are purged with the 'PL' option if a corresponding source file is found (i.e. starting with an &). If files beginning with a single quote are found without a matching source file, an informative message is printed out so you can find those list files created by mistake from errors in the run string when compiling.

The 'RE' option allows you to reclaim unused disc space in type 3 & 4 files by reading the file and releasing used space at the end. The final number of blocks in the file is rounded up to be disvisable by 4 for more efficient access using larger DCB's. Processing is very fast taking less than a second to handle a 100 block file.

The 'UN' option removes extents from files by copying them into a file that is the original size times the number of extents. Unused disc is released as in the 'RE' option.

The 'EX' option will round a file size up like the unextend option until it is divisable by 4. If the file size is divisable by 4 already nothing is done to the file. 'EX' and 'UN' are mutually exculsive.

The program accepts both lower and upper case letters. The break command can be given at any time and will stop processing the file it was currenting working on. Also options can be disabled for a given cartridge and re-enabled for the next cartridge.

FMGR CARTRIDGE CLEAN UP PROGRAM (cont)

The program is very efficient making use of multiple track reads of both the directory tracks and data tracks. FMGR DCB's are about 100 blocks in size. Extensive use of system MACROS are used making it very difficult to try to use the program with RTE-4B. The new file system doesn't need this kind of utility.

Error reporting and file descriptions now use CI format for consistancy. The FSTAT call may need to be changed for RTE-A.

CI PROGRAM PREPROCESSORS

```
Contribution Name.....: CIPRE
   Title..............: CI program preprocessors.
   File Names.........: 00. Rename Transfer File.
                      : 01. 'CIPRE - Submission file.
                      : 02. &ASMB  - Assembler preprocessor.
                      : 03. #ASMB  - Link command file.
                      : 04. &FTN4X - FORTRAN 4x preprocessor.
                      : 05. #FTN4X - Link command file.
                      : 06. &MICRO - Microprogramming preprocessor.
                      : 07. #MICRO - Link command file.
                      : 08. &MXREF - Micro cross ref. preprocessor.
                      : 09. #MXREF - Link command file.
   Operating System...: RTE-6/VM, RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. Pre-processor
                      : 2. CI
                      : 3. Compiler
   External Support Req'd...: CI file system.
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: WQEC Code 331
            City.......: Seal Beach
            State......: CA.
            Country....: USA
            Zip Code...: 90740
            Phone Number..: (213) 594-7351
            Telex......:
Program Abstract.......:
```

This package of preprocessors allows older HP products to use the new CI file system. Some things don't work the same in FTN4X and FTN7X so I wanted FTN4X to used the new file system. Bugs in MACRO have also forced me to go back and use ASMB at times. The method used is simple and will work for many programs. If the source is in a CI file, then it is copied to a FMGR scratch file. FMGR list and object files are set up as needed. Then the real compiler is called using these scratch files. If all is well, then the list and object files are copied back to the CI files system and the temporary scratch files are purged. Error checking is also done passing the status back to the calling program. The process is fast using FmpCopy usually taking only a few seconds of extra processing. WARNING: Due to a bug in C.83 FmpCopy, do not size up the programs to more than 30 pages.

Additional Documentation....:

File naming conventions:

Preprocessor	Compiler name
FTN4X.RUN::PROGRAMS	FTN66.RUN::PROGRAMS
ASMB.RUN::PROGRAMS	ASMB4.RUN::PROGRAMS
MICRO.RUN::PROGRAMS	MICXE.RUN::PROGRAMS
MXREF.RUN::PROGRAMS	MICXF.RUN::PROGRAMS

HP/C LIBARIES J031

HP/C COMPILER RUNTIME AND I/O LIBRARIES

Contribution Name	HP/C Libraries
Title	HP/C Compiler Runtime and I/O Libraries
File Names	00. Rename Transfer File
	01. 'CLIB Submission file
	02. $NCLIB New file system library
	03. $OCLIB Old file system library
Operating System	RTE-IVB, RTE-XL, RTE-6/VM, RTE-A.1, RTE-A
Language(s)	HP/C, MACRO
Keywords	1. Library
	2. C
	3. Compiler
External Support Required	
If Re-submission, Reason.	
Contributor's Name	David A. Boskey
Company	Corporate Computer Systems, Inc.
Street	33 West Main Street
City	Holmdel
State	New Jersey
Country	USA
Zip Code	07733
Phone Number	(201) 946-3800
Telex	642672
Program Abstract	
Additional Documentation	See the HP/C Reference Manual from CCS

CONV J032

ASCII TO NUMBERIC CONVERSION

Contribution Name	CONV
Title	ASCII to numeric conversion
File Names	00. Rename Transfer File
	01. 'CONV Submission file
	02. &CONV Program source
Operating System	RTE-6VM
Language(s)	FTN4X, FTN7X
Keywords	1. ASCII
	2. CONVERSION
External Support Req'd	
If Re-submission, Reason.	
Contributor's Name	John A. Price
Company	Hershey Foods Corporation Technical Center
Street	1025 Reese Ave PO Box 805
City	Hershey
State	PA
Country	USA
Zip Code	17033-0805
Phone Number	(717) 534-5239
Program Abstract	A library of FTN4X and FTN7X conversion routines to convert ASCII to numeric.
Additional Documentation	Routines included: KVTAS: Convert ASCII to INTEGER (FTN4X) CVTAS: Convert ASCII to REAL (FTN4X) LVTAS: Convert ASCII to INTEGER (FTN7X) SVTAS: Convert ASCII to REAL (FTN7X)

RTE-A SYSTEM ANALYZER

```
Contribution Name.....: CMMA
   Title..............: RTE-A System Analyzer
   File Names.........: 00. Rename Transfer File
                      : 01. 'CMMA  Submission file
                      : 02. "CMMA  Execution notes
                      : 03. #CMMA  LINK command file
                      : 04. &ADDSK Add to command stack source
                      : 05. %ADDSK Add to command stack relocatable
                      : 06. &BYTES Byte manipulation source
                      : 07. %BYTES Byte manipulation relocatable
                      : 08. &CKMOR Check for more output source
                      : 09. %CKMOR Check for more output relocatable
                      : 10. &CMMA  CMMA main program source
                      : 11. %CMMA  CMMA main program relocatable
                      : 12. &COMMA Command reader source
                      : 13. %COMMA Command reader relocatable
                      : 14. &CVT   Convert ascii to binary source
                      : 15. %CVT   Convert ascii to binary relocatable
                      : 16. &DLPK  List disc sectors source
                      : 17. %DLPK  List disc sectors relocatable
                      : 18. &DM    Modify disc location source
                      : 19. %DM    Modify disc location relocatable
                      : 20. &DP    Display parameters soure
                      : 21. %DP    Display parameters soure
                      : 22. &DRPK  List LU table entries source
                      : 23. %DRPK  List LU table entries relocatable
                      : 24. &DS    Search disc track source
                      : 25. %DS    Search disc track relocatable
                      : 26. &FI    Find value - user map source
                      : 27. %FI    Find value - user map relocatable
                      : 28. &IDPK  List ID segments source
                      : 29. %IDPK  List ID segments relocatable
                      : 30. &INPK  List interrupt table source
                      : 31. %INPK  List interrupt table relocatable
                      : 32. &LI    List a system entry point source
                      : 33. %LI    List a system entry point relocatabl
                      : 34. &LISTP Output in packed format source
                      : 35. %LISTP Output in packed format relocatable
                      : 36. &LMPK  List memory - user map source
                      : 37. %LMPK  List memory - user map relocatable
                      : 38. &LUPK  Display lu tables source
                      : 39. %LUPK  Display lu tables relocatable
                      : 40. &OUT   Write the output records source
                      : 41. %OUT   Write the output records relocatable
                      : 42. &PM    Modify memory - user map source
                      : 43. %PM    Modify memory - user map relocatable
                      : 44. &RDREC Read a command source
                      : 45. %RDREC Read a command relocatable
                      : 46. &XF    Find a value - system map source
                      : 47. %XF    Find a value - system map relocatabl
                      : 48. &XLPK  List memory - system map source
                      : 49. %XLPK  List memory - system map relocatable
                      : 50. &XP    Modify memory - system map source
                      : 51. %XP    Modify memory - system map relocatable
   Operating System...: RTE-A
   Language(s)........: HP/C, FTN7X, MACRO
   Keywords...........: 1. System
                      : 2. System tables
                      : 3. Analyzer
   External Support Required:
   If Re-submission, Reason.:
Contributor's Name....: David A. Boskey
             Company..: Corporate Computer Systems, Inc.
             Street...: 33 West Main Street
             City.....: Holmdel
             State....: New Jersey
             Country..: USA
             Zip Code.: 07733
             Phone Number..: (201) 946-3800
```

(cont)

CMMA J033

RTE-A SYSTEM ANALYZER (cont)

Program Abstract.....:

CMMA is a program which facilitates the analysis of problems in an RTE-A system. CMMA is a stripped-down version of previous versions of CMMx. This version does not have the facility to run in a different computer; i.e. you cannot examine a remote RTE-A from another node in a DS/1000 network.

CMMA provides the following commands:

DL lu track sector #sectors	list disc sectors
DM lu track sector word value [flag]	modify a word on the disc
DP value [operator value]	display parameters
DR lu [lu]	display lu table
DS lu track wd1 [wd2] [wd3] [wd4] [wd5]	search disc tracks
EC	echo tr file commands
EP	issue top of form to output
EX	exit from CMMA
FI value start-address #words	find value in the user map
ID number/name	display id segments
IN start_sect-code [end-select-code]	display interrupt table entries
LE	list all entry points
LI entry-point [#words]	list an entry point
LL file/lu	change output file/lu
LM address #words	list memory in the user map
LU lu	display dvt and ift
PM address value [flag]	patch a word in the user map
TR file	get commands from a file
XF value start-address #words	find value in the system map
XL address #words	list memory in the system map
XP address value [flag]	patch a word in the system map

Additional Documentation....:

QSPOL J034

EASY SPOOLER INTERFACE

Contribution Name.....: QSPOL
Title.....: EASY SPOOLER INTERFACE
File Names.....: 00. Rename Transfer File
: 01. 'QSPOL Submission file
: 02. &QSPOL
Operating System.....: RTE-IVB or RTE-6/VM
Language(s).....: FTN4X
Keywords.....: 1. Spooling
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: R. Niekamp
Company.....: Hewlett Packard Company
Street.....: 1001 E. 101st Terrace
City.....: Kansas City
State.....: Missouri
Country.....: USA
Zip Code.....: 64131
Phone Number..: (816) 941-0411
Program Abstract.....: Easy interface to the spooler package.
Contains two (2) options:
1) Setup programmatic spool files.
2) Transaction logging, weekly cycle, retains file till following week then reuses.
Additional Documentation....:

DIRECT, DMA, PRIVILEGED MODE I/O EXAMPLES

Contribution Name	CPIC
Title	DIRECT, DMA, PRIVILEGED MODE I/O EXAMPLES
File Names	00. Rename Transfer File 01. 'CPIC Submission File 02. &CPIC 03. &ASIC 04. &CASIC 05. &HPIB 06. &CHPIB 07. &PICCW 08. &LOOKH 09. &HLOOK 10. &LOOK 11. &LOOKM 12. &CNO 13. &PICIO 14. &IBCOM
Operating System	RTE-A.1
Language(s)	FORTRAN77, MACRO/1000
Keywords	1. I/O 2. DMA 3. privileged
External Support Req'd	NONE
If Re-submission, Reason	
Contributor's Name	Avery Davis
Company	GEORGIA INSTITUTE OF TECHNOLOGY
Street	Electromagnetics Laboratory Millimeter Wave Technology Division
City	Atlanta
State	GA
Country	USA
Zip Code	30332
Phone Number	(404)894-3505
Telex	
Program Abstract	These programs are examples of direct, privileged mode DMA I/O on an A-series HP1000. They have only been tested on an A700 under RTE-A.1. Some of the programs are FORTRAN which call privileged assembly language subroutines, and other are accessory utilities.
Additional Documentation	Comment lines at the beginning of each source code file describe the use and loading of that file. A tutorial may be found in the paper, "Direct privileged Mode DMA I/O on the A700 Under RTE A.1", Avery Davis, INTEREX Technical Computer Conference Proceedings, 1984 HP 1000 International Conference, San Jose, CA, September 9-13, 1984, pp14-1 to 14-8.

CPUSE J036

24 HOUR CPU USAGE WITH PRINTOUT

```
Contribution Name.....: CPUSE
   Title..............: 24 HOUR CPU USAGE WITH PRINTOUT
   File Names.........: 00. Rename Transfer File
                      : 01. 'CPUSE          -SUBMISSION FILE
                      : 02. &CPUSE          -SOURCE CODE FOR CPUSE
                      : 03. %CPUSE          -RELOCATABLE FOR CPUSE
                      : 04. %WAIT           -RELOCATABLE FOR WAIT
   Operating System...: RTE 6VM
   Language(s)........: FTN77
   Keywords...........: 1. Analyzer
                      : 2. Accounting
                      : 3. Reports
                      : 4. Performance
   External Support Req'd...: NONE
   If Re-submission, Reason.: N/A
Contributor's Name.....: DAN FOGER/JOE BOSWELL
            Company....: FAA
            Street.....: 5400 DAVIS HYWY
                       :
            City.......: ANCHORAGE
            State......: ALASKA
            Country....:
            Zip Code...: 99506
            Phone Number..: 907-269-1189
Program Abstract.......:
```

A program to satisfy managers who aren't impressed by flashing lights and have learned the buzz words "HOWS YOUR CPU USAGE?". Data is gathered from the S register via the CU,ON command and creats a reasonable piece of paper to hand them 24 hours later. Samples at .5 second intervals are stored and a file created with output to specified printer lu with some percentages like the 'CPU WAS BUSY 100% OF THE TIME FOR XX% OF THE HOUR'. %WAIT is included in case you dont have the old ISALB around.

DATA J037

EQUIPMENT TABLE PRINT OUT

```
Contribution Name.....: DATA
   Title..............: EQUIPMENT TABLE PRINT OUT
   File Names.........: 00. Rename Transfer File
                      : 01. 'DATA           -SUBMISSION FILE
                      : 02. &DATA           -SOURCE CODE FOR CPUSE
                      : 03. %DATA           -RELOCATABLE FOR CPUSE
                      : 04. %ASINT          -RELOCATABLE FOR ASCII
   Operating System...: RTE 6VM
   Language(s)........: FTN77   ASINT IS IN ASSEMBLER
   Keywords...........: 1. System tables
                      : 2. Eqt
   External Support Req'd...: NONE
   If Re-submission, Reason.: N/A
Contributor's Name.....: DAN FOGER/JOE BOSWELL
            Company....: FAA
            Street.....: 5400 DAVIS HYWY
                       :
            City.......: ANCHORAGE
            State......: ALASKA
            Country....:
            Zip Code...: 99506
            Phone Number..: 907-269-1189
Program Abstract.......:
```

A program to SEE what is in the equipment table. Seems you need to see all of the words in table if your having trouble with an lu. To run the program just type in DATA,equipment number. Other option is to direct the output listing with ipram 2; DATA,equipment number,output lu number %ASINT is included to load the program.

DBMOD J038

DATA BASE MODIFIER

Contribution Name	DBMOD
Title	Data Base modifier
File Names	00. Rename Transfer File
	01. 'DBMOD SUBMISSION FILE
	02. ?DBMOD PROGRAM HELP FILE
	03. #DBMOD LINK COMMAND FILE
	04. &DBMOD SOURCE CODE
	05. %DBMOD COMPILED CODE
Operating System	RTE-6VM
Language(s)	FTN7X
Keywords	1. IMAGE
	2. DATA BASE
	3. MODIFY
External Support Req'd	IMAGE 1000
If Re-submission, Reason	
Contributor's Name	CARL RAPSON
Company	DOWELL SCHLUMBERGER
Street	PO BOX 2710
City	TULSA
State	OKLAHOMA
Country	USA
Zip Code	74101
Phone Number	(918)250-4288
Telex	
Program Abstract	

This program allows you to modify the values of items in a data base. Both regular and key items can be changed. The items can be character, real, or integer types. The program is kind of slow, but it gets the job done much more easily than doing it by hand. DBMOD opens the data base in mode 3 (exclusive), so no other activity is allowed while it is working. See the file ?DBMOD for more details.

Additional Documentation....:
IMAGE 1000 REFERENCE MANUAL

DATA BASE MODIFY PROGRAM

Contribution Name.....: DBMOX
Title.....: Data base modify program
File Names.....: 00. Rename Transfer File
: 01. 'DBMOX submission file
: 02. &DBMOX source file
: 03. #DBMOX loader file
Operating System.....: RTE6VM,RTE4B
Keywords.....: 1. Data base
: 2. IMAGE
: 3. Modify
Language(s).....: FTN4X
External Support Req'd...: 92069 IMAGE LIBRARY
If Re-submission, Reason.:
Contributor's Name.....: HAL HARP
Company.....: NAVWPNSUPPCEN
Street.....: BLDG. 41NE CODE 70613
City.....: CRANE
State.....: IN.
Country.....: USA
Zip Code.....: 47522
Phone Number..: 812-854-1034
Program Abstract.....: JUNE 1, 1981

THIS PROGRAM IS USED TO MODIFY A 92069 DATA BASE. IT WILL ADD ,DELETE AND MODIFY A SINGLE RECORD INCLUDING KEY ITEMS.

THE LOADR FILE CONTAINS A REFERENCE TO LI,$DBMSY, THIS NAME MAY HAVE TO BE CHANGED OR OMITTED DEPENDING ON THE PARTICULAR INSTALLATION OF IMAGE/1000 AT YOUR SITE.

TO OPERATE PROPERLY THIS PROGRAM EXPECTS A 26XX TYPE TERMINAL.

EXAMPLE:
TO RUN:

```
RU,DBMOX

    Enter data-base name:+sc STAN:99
    Enter level MOM
    Enter data-set TRANS
```

A MENU WILL THEN BE PRINTED ON THE SCREEN WITH THE NAMES OF THE DATA ITEMS AND THE LENGTH OF THE ITEM WILL BE IN PARENTHESES.

THIS PROGRAM USES A DBINF CALL TO GET THE DATA SET INFORMATION THEN CREATES A SCREEN AND ALLOWS THE USER TO FILL IN THE SCREEN WITH DATA. THE USER THEN SAVES THE INFORMATION ON THE SCREEN WITH A /S.

DBMOX WAS MODIFIED FROM A PROGRAM WRITTEN BY DAN LASKOWSKI, HP INDY.

Additional Documentation....: IMAGE/1000 92069 MANUALS

LINEPRINTER DRIVER AND SUPPORT SOFTWARE

Contribution Name	DVP12
Title	Lineprinter driver and support software.
File Names	00. Rename Transfer File.
	01. 'DVP12 - Submission file.
	02. &DVP12 - Driver source.
	03. &UPIT - Up downed Lu's.
	04. &CC - Space page up.
	05. *UPIT - LOADR command file.
	06. #CC - Link command file.
Operating System	RTE-6/VM only.
Language(s)	MACRO
Keywords	1. Driver
	2. Printer
External Support Req'd	Spooling system must be system generation.
If Re-submission, Reason	
Contributor's Name	John L. Anderson Jr.
Company	U.S. Naval Station
Street	WQEC Code 331
City	Seal Beach
State	CA.
Country	USA
Zip Code	90740
Phone Number	(213) 594-7351
Telex	
Program Abstract	

This line printer driver is a modification of DVC12 which supports HP 2767A, 26xx and Dataproducts line printers. No vertical forms control is needed because the driver does it all. Lower case letters can be shifted to upper case automatically by specifing the right subchannel. The paper width can be set to 80 or 132 columns. Non printing characters can be diplayed as an @ sign or ignored. If the printer is at the top of form, no futher form feeds are allowed until something is printed unless a control 15b request is given. This saves a lot of paper.

The support programs make life a little easier. UPIT run every 3 seconds and checks for any printers that are down. If one is found, it's hardware status is checked to see if it is ready again. When ready, GASP is scheduled to restart the spool file and up the printer. If the printer is not spooled, then it is just upped. The CC program spaces the the paper on a Dataproducts B300/600 for tearoff.

Additional Documentation....:

EQTS J041

EQUIPMENT TABLE ACCESS

```
Contribution Name.....: EQTS
   Title..............: EQUIPMENT TABLE ACCESS
   File Names.........: 00. Rename Transfer File
                      : 01. 'EQTS        -SUBMISSION FILE
                      : 02. &EQTS        -SOURCE CODE
                      : 03. %EQTS        -RELOCATABLE
   Operating System...: RTE 6 VM
   Language(s)........: FORTRAN 77
   Keywords...........: 1. SYSTEM TABLES
                      : 2. EQT
   External Support Req'd...: NONE
   If Re-submission, Reason.: N/A
Contributor's Name.....: JOE BOSWELL
            Company....: FAA
            Street.....: 5400 DAVIS HYWY
            City.......: ANCHORAGE
            State......: ALASKA
            Country....:
            Zip Code...: 99506
            Phone Number..: 907-269-1157
            Telex......:
Program Abstract.......:
```

Have you got one of those mux handlers that use the exec 12 call and you would like to use clones of only one program on each port, but each has a different baud rate so you dont know how long to delay before you terminate the buffer? Or are you using some exotic driver that you would love to get to the eqt. table if only you knew the starting address?? EQTS will get you started if you have RTE6v/m.

Additional Documentation....:

ERASE J042

ERASE A FMGR CARTRIDGE

```
Contribution Name.....: ERASE
   Title..............: Erase a FMGR Cartridge.
   File Names.........: 00. Rename Transfer File.
                      : 01. 'ERASE - Submission file.
                      : 02. &ERASE - FORTRAN Source.
                      : 03. #ERASE - Link command file.
   Operating System...: RTE-6/VM
   Language(s)........: FTN7X
   Keywords...........: 1. PURGE
                      : 2. FILES
                      : 3. INITIALIZE
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: WQEC Code 331
            City.......: Seal Beach
            State......: CA.
            Country....: USA
            Zip Code...: 90740
            Phone Number..: (213) 594-7351
            Telex......:
Program Abstract.......:
```

This program provides a way of clearing all the files from a FMGR disc cartridge leaving nothing but the label intact. Zeros are written every everywhere on the Lu except the label. This provides both security and a quick way to purge all files on a cartridge. The cartridge must be mounted and no files can be open. The Lu is locked to prevent access by others while it is being cleared. Only the owner who mounted the disc can erase it. The program display label information and asks if you really want to erase this cartridge. Once it starts, there is no way to get any files back.

FIX ODD BYTE COUNT FMGR RECORDS

Contribution Name	FIXFMGR
Title	Fix Odd Byte Count FMGR Records
File Names	00. Rename Transfer File
	01. 'FIXFM Submission file
	02. &FIXFM Record length word fixer - source
	03. %FIXFM Record length word fixer - relocatabe
Operating System	RTE-6/VM, RTE-A
Language(s)	HP/C
Keywords	1. TRANSPORTABLE
	2. COMPATIBILITY
External Support Required	
If Re-submission, Reason	
Contributor's Name	David A. Boskey
Company	Corporate Computer Systems, Inc.
Street	33 West Main Street
City	Holmdel
State	New Jersey
Country	USA
Zip Code	07733
Phone Number	(201) 946-3800
Telex	642672

Program Abstract:

There is an incompatibility between RTE systems that have the new file system available and those that do not. This can cause problems when transporting files from either an RTE-6/VM or RTE-A system to a system that does not have the new file system available.

Since the new file system allows for the writing of records with an odd number of bytes, the record length word for type 3 format files has changed for those odd length records. The record length word in non-new file system systems is always a positive word length. In the new file system, the record length word is negative for odd length records. This is interpreted by READF as an end of file, so the first odd length record terminates the file. For example, a record with 5 bytes in the new file system would have a length word of 0100002 octal while in the old file system this would be a record with a length of 3 words.

To solve this problem, a program has been written which is available on any system with the new file system available which will modify these incompatible record length words. This program should be run on the files that will be transported to an incompatible system just prior to storing them onto tape. The program is run by using the command:

fixfmgr,<filedescriptor>

This program should only be run against type 3 format files. These include type 3, 4, and any user-defined file types > 7 with a type 3 format.

Additional Documentation....:

FMGR CALLS FOR CI FILES

Contribution Name.....	FMPLB
Title.....	FMGR calls for CI files.
File Names.....	00. Rename Transfer File.
	01. 'FMPLB - Submission file.
	02. &FMPLB - Source files.
	03. $FMPLB - Lindxed library.
	04.)FMPLB - Merge file.
	05. %CRETS - Create scratch from %BMPG3.
Operating System.....	RTE-6/VM, RTE-A
Language(s).....	MACRO
Keywords.....	1. Conversion
	2. Library
	3. Emulator
	4. Files
External Support Req'd...	CI file system.
If Re-submission, Reason.	
Contributor's Name.....	John L. Anderson Jr.
Company.....	U.S. Naval Station
Street.....	WQEC Code 331
City.....	Seal Beach
State.....	CA.
Country.....	USA
Zip Code.....	90740
Phone Number..	(213) 594-7351
Telex.....	
Program Abstract.....	

This set of library routines allows programs using FMGR file calls to use the new CI file system without modification. For example a call to OPEN reformats the data and calls FmpOpen. All files exist on the new CI file system giving the user most of the advantages that come with the new system. There are limitations of course. File names are still limited to 6 characters and the special characters used by CI are not allowed. The security code is ignored and the CRN must be 1 or 2 ascii characters. Numbers are not allowed for CRN's. There is also a price to pay. It takes about 1 to 1.5k more words of program space. The package has been tested with a number of HP software packages. For example, BASIC/1000D can use the new system by setting the desired working directory before running BASIC and just specifing file names up to 6 characters. Unfortunately the new file system doesn't handle FMGR type zero files properly so they cannot be used by BASIC. But for programs for which you have no source, this package allows you to start getting rid of your old FMGR cartridges.

Additional Documentation....:

Just add LIB,$FMPLB to your LINK command files to use this package. %CRETS was extracted from the C.83 RTE-6/VM library so it would call the ECRET subroutine in this package instead of the one in the system. Undocumented calls are also supported in this package.

INTERACTIVE FONT GENERATOR

Contribution Name	GFONT
Title	Interactive Font Generator
File Names	00. Rename Transfer File
	01. 'GFONT Submission file
	02. &GFONT Source file
	03. %GFONT Relocatable
	04. #GFONT Loadr/Link command file
	05. "GFONT Info file
Operating System	RTE-6/VM, IVB
Language(s)	FTN7X
Keywords	1. Font
	2. Text
	3. Interactive
External Support Req'd	92841 DGL Library
If Re-submission, Reason	
Contributor's Name	Juan A. Codagnone
Company	ATEC S.A.
Street	Cerrito 866 Piso 7
City	Buenos Aires
State	
Country	ARGENTINA
Zip Code	1336
Phone Number	01 45-4001
Telex	21-466 ATEC AR

Program Abstract:

GFONT is a program that will allow you to generate and maintain your own, customized Font Files. Using simple, two-letter commands you can design the characters or symbols that you wish, or draw them on a graphics device.

Additional Documentation....: See file "GFONT

USER HELP PROGRAM

```
Contribution Name.....: HOW
   Title..............: User help program
   File Names.........: 00. Rename Transfer File
                      : 01. 'HOW  Submission File
                      : 02. &HOW  ftn7x source
                      : 03. %HOW  ftn7x relocatable
                      : 04. ?HELP a sample help file
                      : 05. $HELP indexed version of ?HELP
   Operating System...: RTE 6-VM  (only!)
   Language(s)........: FORTRAN-77
   Keywords...........: 1.HELP
                      : 2.INSTRUCTION
                      : 3.MESSAGE
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Joel McClatchy & Paul Schumann
             Company...: E-Systems, Inc.
             Street....: P. O. Box 1056  CBN 101
             City......: Greenville
             State.....: Texas
             Country...: USA
             Zip Code..: 75401
             Phone Number..: 214 457-5363
             Telex.....:
Program Abstract.....: This submission is a type of on-line help
which has proven very useful in our environment (lots or unsophisticated
users).  The command "HOW,XXXX" will cause the information available on
"XXXX" to be displayed.  If the user enters just "HOW", the program will
interact with the user giving first top-level general help, then more
specific help on sub-topics, sub-sub-topics, and so on, until the user
gets whatever was needed.  NOTE -- ?HELP and $HELP have been provided as
examples only; the system manager should customize these files to his or
her system needs.

Loading:  use LINK,%HOW     -or-   LOADR,,%HOW

Help-file preparation:  The help file used by how must be named $HELP.
It is in "standard" help-file format as shown in the example ?HELP.  To
index it, use GENIX,?HELP,1,$HELP.  Of course, $HELP must reside on a
generally-accessible (system-mounted) cartridge.

Help-file keywords: may be one to 24 characters in one or more words
(separated by a SINGLE space).  Keywords are separated from each other
on a given line by two or more spaces.

Useful routines:
READ_LINE  reads the line the cursor is currently on
GET_KEY    returns the full keyword the cursor was on, or if the cursor
           was in the inter-keyword space, it returns the keyword to the
           right of the cursor, or if the cursor was past the last one
           on the line, it returns the last keyword.
GET_CURSOR returns the row and column of the cursor without moving it.
```

ARITHMETIC CALCULATOR FOR DATA IN AN ANNOTATED FILE

```
Contribution Name.....: JCalc
   Title..............: Arithmetic calculator for data in an annotated file
   File Names.........: 00. Rename Transfer File
                      : 01. 'jcalc   Submission File
                      : 02. &jcalc   Source
                      : 03. [jcalc   Inlcude file
                      : 04. %jcalc   Reloc
                      : 05. #jcalc   Load file
                      : 06. "jcalc   Help file
   Operating System...: RTE-6, RTE-A
   Language(s)........: Ftn7x
   Keywords...........: 1. Calculator
   External Support Req'd...: Hierarchical file system
   If Re-submission, Reason.:
Contributor's Name.....: John D. Johnson
            Company....: JDJ Wordware
            Street.....: P.O. Box 345
                       :
            City.......: Cupertino
            State......: CA
            Country....: USA
            Zip Code...: 95015
            Phone Number..: (415)965-3245
            Telex......:
Program Abstract.....:
     JCalc does arithmetic on numbers and variables in
     an annotated file.  An at sign ('@') is used to flag
     the start of a command.   It is followed by a
     variable name which FileCalc puts into it's
     symbol table. Next comes one of 3 command characters.
     An equal sign ('=') followed by and expression
     terminated by a semicolon (';') assigns a value
     to the variable.  Expressions may use plus ('+'),
     minus ('-'), times ('*') and divide ('/') as
     operators and parenthesis. Normal operator precedence
     applies.
     A plus sign ('+') followed by a number adds the
     number to the current value of the variable.
     A number sign ('#') followed by format skeleton number
     causes FileCalc to replace the format skeleton with
     the current value of the variable. Example:

     @x = 3;
     @y = 4;
     @z = x*x + y*y;
     @z#    25.000
     @z+ 5
     @z# 30

Additional Documentation....:  From file "JCalc
```

JCalc is a data-reduction program that reads variables, expressions, and numbers from a file, evaluates the expressions and variables, and writes the results back into the file according to your format skeletons. Format skeletons are data templates (similar in concept to the PRINT USING statement found in some versions of BASIC). They are designed to facilitate running JCalc on the file more than once, as when getting intermediate results from a data-gathering program.

Usage: JCalc, fileName

Statements:
@ Start a command
# Print a variable's value
+ Add a number to a variable
= Assign an expression's value to a variable

(cont)

Expressions, in order of precedence
() Alter precedence
/ Divide
* Multiply
+ Add
- Subtract
; Terminate an expression

JCalc does arithmetic on numbers and variables in an annotated file. Commands in the file have the form:

@ variableName operationType operand

An at-sign (@) marks the beginning of a command.

variableName is a variable that JCalc remembers; new variables are created when they are first mentioned. Variable names start with a letter and can have numbers, underscores, and periods in them. Names can be of any length.

operationType is one of:

= Assign the value of an expression to the variable. Expressions may use / * + - () and are terminated with ;

+ Add a number to a variable; add a negative number to subtract ("@ var + 3" is shorthand for "@ var = var + 3;").

Print the current value of the variable using a format skeleton. The skeleton is overwritten with the current value of the variable. Format skeletons specify where to output the number on the line, and tell how many significant decimal digits to output.

Format skeletons use the characters:

.	Decimal point -- print the number around this.
digit	Overwrite this number.
blank	Print the value here.
*	Digit placeholder; numbers are right-justified in this field.

Example:
Given a file containing:

```
@x = 3;
@y = 4;
@z = x*x + y*y;
@z#      .***
@z + 5
@z#  *
```

JCalc will change the file to:

```
@x = 3;
@y = 4;
@z = x*x + y*y;
@z#    25.000
@z + 5
@z# 30
```

Hints:
JCalc ignores blanks except as a terminator for variable names. Thus, the line "@z + 5" could have been written "@ z + 5" or "@z+5".

Notice above that addition does not need a terminator. If there is no decimal point in the output skeleton, use a * to place the number in a specific spot.

When writing a file out, JCalc preserves the location of the decimal point in the line. It also preserves the number of digits after the decimal point.

If a value will not fit in its skeleton output field, JCalc outputs an equivalent format skeleton using decimal points and/or stars instead of the value. No error messages are produced.

When JCalc terminates, it prints the final value of all variables encountered in the file on your terminal. Variables are printed in the order in which they were defined.

(cont)

Another JCalc example:

```
    This file was produced be merging the output files from
    multiple runs of a simulator and using EDIT/1000 to delete
    the extra text.  JCalc is now used compute the number of cycle per
    execution and the total number of expansions.
    The JCalc annotations will be removed for the final report.

   cache    expansions    executions        cycles              cycles per
    size                                     total               execution
   -----   ----------   ----------        ------              ----------
      16   @n+   14285 @e=    78088; @c=  366989; @r=c/e;@r#          .**
      32   @n+   13511 @e=    78088; @c=  353003; @r=c/e;@r#          .**
      64   @n+   11787 @e=    78088; @c=  323277; @r=c/e;@r#          .**
     128   @n+    3666 @e=    78088; @c=  192065; @r=c/e;@r#          .**
     256   @n+    3666 @e=    78088; @c=  192065; @r=c/e;@r#          .**
     512   @n+    3464 @e=    78088; @c=  188608; @r=c/e;@r#          .**
    1024   @n+    3129 @e=    78088; @c=  182998; @r=c/e;@r#          .**
    2048   @n+     957 @e=    78088; @c=  144308; @r=c/e;@r#          .**
    4096   @n+     957 @e=    78088; @c=  144308; @r=c/e;@r#          .**

Total
Expansions=@n#      *
```

Running JCalc produces:

```
    This file was produced be merging the output files from
    multiple runs of a simulator and using EDIT/1000 to delete
    the extra text.  JCalc is now used compute the number of cycle per
    execution and the total number of expansions.
    The JCalc annotations will be removed for the final report.

   cache    expansions    executions        cycles              cycles per
    size                                     total               execution
   -----   ----------   ----------        ------              ----------
      16   @n+   14285 @e=    78088; @c=  366989; @r=c/e;@r#          4.70
      32   @n+   13511 @e=    78088; @c=  353003; @r=c/e;@r#          4.52
      64   @n+   11787 @e=    78088; @c=  323277; @r=c/e;@r#          4.14
     128   @n+    3666 @e=    78088; @c=  192065; @r=c/e;@r#          2.46
     256   @n+    3666 @e=    78088; @c=  192065; @r=c/e;@r#          2.46
     512   @n+    3464 @e=    78088; @c=  188608; @r=c/e;@r#          2.42
    1024   @n+    3129 @e=    78088; @c=  182998; @r=c/e;@r#          2.34
    2048   @n+     957 @e=    78088; @c=  144308; @r=c/e;@r#          1.85
    4096   @n+     957 @e=    78088; @c=  144308; @r=c/e;@r#          1.85

Total
Expansions=@n#  55422
```

PROGRAM RP'ER AND ID-SEGMENT TWIDDLER

```
Contribution Name.....: KEEP
   Title..............: Program RP'er and ID-Segment Twiddler
   File Names.........: 00. Rename Transfer File
                      : 01. 'KEEP  Submission file
                      : 02. &KEEP  Ftn4x source
                      : 03. %KEEP  New-style relocatable
   Operating System...: RTE-6, A (IVB and others, probably)
   Language(s)........: Ftn4x
   Keywords...........: 1. ID Segments
   External Support Req'd...: None.
   If Re-submission, Reason.:
Contributor's Name.....: Don Pottenger
              Company..: Hewlett-Packard Co.
              Street...: 11000 Wolfe Road
              City.....: Cupertino
              State....: CA
              Country..: USA
              Zip Code.: 95014
              Phone Number..: (408) 257-7000
              Telex....:
Program Abstract.......: KEEP does on RP on a type-6 file.  It is faster
than the RP command and handles CI files too, and the RP won't be undone when
you log off.  Additional options allow you to keep the program from being
cloned, detach the program from session, and make the program look as if it
were permanent (genned-in, or LOADR'd with the PE option).

Additional Documentation....: Run it without any parameters and you'll see:
Usage:  KEEP, type_6_file [,options]

KEEP will RP and clear the session ID word.
(ie. will RP as if the system manager did it.)

option = DC - set the don't copy bit(inhibit cloning)
       =-DC - clear the don't copy bit (allow cloning)
       = DE - detach this program from session
       = PE - make program 'look' permanent
       =-PE - make program 'look' temporary

Options may be specified in any order, and can be combined as in
  KEEP, SAM.RUN::PROGRAMS, PE, DC
```

ELECTRONIC MAIL SYSTEM

```
Contribution Name.....: MAIL
   Title..............: Electronic Mail System
   File Names.........: 00. Rename Transfer File
                      : 01. 'MAIL    - Submission File
                      : 02. &MAIL    - Source
                      : 03. %MAIL    - Relocatable
                      : 04. #MAIL    - LINK command file
                      : 05. $FNEWF   - Rev. 2341 (fixes bug in FmpOpen)
                      : 06. "MAIL    - help file for /HELP/ directory
   Operating System...: RTE-6VM Rev. C.83 or later
   Language(s)........: FTN77
   Keywords...........: 1. MAIL
                      : 2. MESSAGE
                      : 3. DATA COMM
   External Support Req'd...: 'CI' File System
                      : RTE-6VM Accounts System
   If Re-submission, Reason.: no
Contributor's Name.....: R. Arthur Gentry
            Company....: AT&T Communications
            Street.....: Rm 785
                      : 811 Main St.
            City.......: Kansas City
            State......: Mo.
            Country....: USA
            Zip Code...: 64141
            Phone Number..: (816) 391-2446
Program Abstract.....: This program is an electronic mail system
for RTE-6VM Rev. C.83 or later.  It uses a combination of the Session
Monitor package and the new 'CI' file system to create a message file
for each user recieving mail.  It requires a 'CI' file directory called
/MESSAGES/ with protection set to rw/rw.  The program will create files
with the name of +Mnnnn.TXT in that directory, wherer '+Mnnnn' is the
message file NAMR found in the Accounts System file +@CCT!.
     The message to be sent is created in a temporary scratch file on
directory /SCRATCH/, which is automaticly purged upon exiting the pro-
gram. If you want a copy for yourself, make one of the addressee's you!
     To send mail, a user enters 'mail s', the program will then prompt
the user for 'To:' which can take any of the following forms:
      USER[.@]      - send to this user in any group
      USER.GROUP    - send to this user in this group
      @.GROUP       - send to all users in this group
      @.@           - send to all users in the system
  You are also allowed to put multiple addresee's on the line, example:
      To: GENTRY @.SYS DAVIS.PRODUCTION PAUL
  (Note- delimiters can be 'spaces' or commas)
  The program will then automaticly insert the From: (you) and date/time
stamp (now).  The program will then ask for a Title: this can be anything,
up to 80 characters you may wish to call your message, enter a (return) if
no title is desired.
    The program will now start prompting for the message with '>'.  You
may now type in the message you wish to send.  There is no limit to the
length of the message.  When finished, enter a 'q' as the first and only
character on the line.  The program will now ask if you wish to Send,
List, Edit, Quit or Abandon the message. Enter:
  S(end) - the program will scan the accounts file @+CCT! file for ID's
           that match your To: addresses, listing the ones it found, and
           letting you know any it could not find.
  L(ist) - the program will list your message to your terminal, 24 lines
           at a time.  Hit the 'space bar' to see the next 24 lines.
  E(dit) - the program will schedule EDIT (EDIT/1000) on your message.
  Q(uit) - the program will stop, purging your message.
  A(bandon) - same a quit
    After issuing S, L or E it will always return to the 'what now'
  prompt, until you enter Q or A.
```

(cont)

MAIL J049

ELECTRONIC MAIL SYSTEM (cont)

After mail has been sent to a user, the next time he logs on, he will recieve a 'MESSAGES WAITING' prompt from the system. To pick up his mail, enter 'mail r [output lu]'. The program will then list out the messge file, 24 lines at a time. When finished, the program will ask if you wish to clear the message file. Enter Y or N. Whether you clear the file or not, once you have picked up your mail, the 'MESSAGES WAITING' prompt will be cleared untill you recieve more mail.

More enhancements are planned, such as a folder system, where you can file away messages; a calander system for reminders, and a bulletin board.

MSAM J050

MONITOR RUNNING OUT OF S.A.M

Contribution Name.....: MSAM
Title.....: Monitor running out of S.A.M.
File Names.....: 00. Rename Transfer File
: 01. 'MSAM Submission File
: 02. &MSAM - Main source
: 03. &.ICTL - Subroutine source
Operating System.....: RTE6, RTE4
Language(s).....: MACRO
Keywords.....: 1. MONITOR
: 2. SYSTEM TABLES
External Support Req'd...: Standard HP macro library
If Re-submission, Reason.:
Contributor's Name.....: Alan Monath
Company.....: Tymshare
Street.....: 6935 Wisconsin Ave
:
City.....: Chevy Chase
State.....: Maryland
Country.....: USA
Zip Code.....: 20815
Phone Number..: (301)951-0122
Telex.....:

Program Abstract.....:

MSAM will periodically monitor the availability of system memory in an RTE6 or an RTE4 system. If the largest contiguous block of SAM is less than a given threshold MSAM will release a previously allocated block of SAM and go into a tight loop waiting for its break flag to be set. Since SAM runs at priority 2 it effectively blocks out all other programs (except the OP system and any priority 1 programs you have defined). The freed block of sam now gives you enough SAM to run other programs to find out who ate all the memory. After freeing up the samjam, set the programs break flag and it will reallocate a block of S.A.M and go back to monitor mode.

Additional Documentation....:

NEWSKI J051

TERMINAL SKI GAME

```
Contribution Name.....: NEWSKI
   Title..............: TERMINAL SKI GAME
   File Names.........: 00. Rename Transfer File
                      : 01. 'NEWSK Submission File
                      : 02. SKIHLP  HELP & INSTRUCTIONS
                      : 03. #SKIDG  DGL LOAD CMD FILE
                      : 04. &SKIDG  DGL SOURCE FILE
                      : 05. #SKIAP  AGP LOAD CMD FILE
                      : 06. &SKIAP  AGP SOURCE FILE
                      : 07. #WSP    SAMPLE AGP WORK STATION
   Operating System...: RTE-6 VM
   Language(s)........: FTN77
   Keywords...........: 1. GAMES
   External Support Req'd...:
   If Re-submission, Reason.: PREVIOUS VERSION USED OLD GRAPHICS
                              SUBROUTINES. NEW VERSION UPDATED TO
                              USE GRAPHICS-1000/II SUBROUTINES
Contributor's Name.....: TONY WEST
            Company....: EATON CORPORATION
                         ENGINEERING & RESEARCH CENTER
            Street.....: P.O. BOX 766
            City.......: SOUTHFIELD
            State......: MICHIGAN
            Country....: USA
            Zip Code...: 48076
Program Abstract.......: NEWSKI IS AN UPDATED VERSION OF THE
OLD SKI GAME DATE CODE 2001. THIS IS AN INTERACTIVE GRAPHICS
PROGRAM THAT DISPLAYS A DOWNHILL RACE COURSE AND ALLOWS THE USER
TO CONTROL THE MOTION OF THE SKIER. THE GAME MAY BE PLAYED ON ANY
GRAPHICS TERMINAL AND A VERSION IS SUPPLIED FOR BOTH DGL AND AGP.

Additional Documentation....: GRAPHICS-1000/II MANUALS
```

NGLIB J052

FILE ERROR REPORTING ROUTINES

```
Contribution Name.....:  NGLIB
   Title..............:  File error reporting routines
   File Names.........: 00. Rename Transfer File
                      : 01. 'NGLIB  Submission file
                      : 02. &NGLOG
                      : 03. &NGF
                      : 04. &NBRK
                      : 05. &NGTRC
                      : 06. [NGCOM   INCLUDE file
                      : 07. *NGLIB  Merge command file
   Operating System...:  RTE-IVB or RTE-6/VM
   Language(s)........:  ASMB, FTN4X
   Keywords...........: 1. ERROR
                      : 2. MESSAGE
                      : 3. HELP
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  R. Niekamp
            Company....:  Hewlett Packard Company
            Street.....:  1001 E. 101st Terrace
            City.......:  Kansas City
            State......:  Missouri
            Country....:  USA
            Zip Code...:  64131
            Phone Number..:  (816) 941-0411
Program Abstract.......:  A collection of routines to provide an
                           easy method of reporting file errors
                           to the user.
Additional Documentation....:  Use MERGE with the .NGLIB file to
                               create a library $NGLIB.
                              [NCOM is an Include file for the
                               Fortran routines.  It must match
                               the space reserved in &NGLOG.
```

USER KEYS PROGRAMMING FOR 262X CRTS

Contribution Name	Nkeys
Title	User keys programming for 262x CRTs
File Names	00. Rename Transfer File 01. 'NKEYS - Submission File 02. #NKEYS - link file 03. #LOADK - link file 04. &NKEYS - source 05. %NKEYS - rel. 06. &LOADK - source 07. %LOADK - rel. 08. &SUBS - sources to library - merged 09. %SUBS - merged relocateables 10. $NKEYS - lindx'd subs 11. KEYFRM - form file 12. KEYINS - form file 13. DLKEYS - key set 14. SKEYS - key set 15. EKEYS - key set 16. OBSKEY
Operating System	RTE-6/VM,RTE-A,RTE-A.1
Language(s)	FORTRAN 77
Keywords	1. SOFTKEYS
External Support Req'd	$fnewf if new file system desired
If Re-submission, Reason	
Contributor's Name	Timothy V. Gill, Ph.D.
Company	R. J. Reynolds
Street	Bowman Gray Technical Center 611-12
City	Winston-Salem
State	NC
Country	USA
Zip Code	27102
Phone Number	(919)773-4849
Telex	
Program Abstract	Set of utilities for creating,modifying and programming user keys on 262x CRTS. Program Nkeys is used to define user key sets for HP 262x type terminals. It requires a block mode 2x crt to work. Definitions for user keys 1-8 and return and enter keys are allowed. Definitions are placed in a user specified file. Can be loaded with new file system routines to take advantage of them. File I/O is with fortran 77 i/o not fmp.

Program Loadk is a short program that will load a set of keys created by by Nkeys, given a type 2x crt.

Load_keys is a subroutine (used by Loadk) that performs the key loading task, given a valid Nkeys-produced file.

Several general purpose routines are included, most dealing with the handling of character data types. They are all in the indexed library $NKEYS contained with this submission.

Additional Documentation....:

TRANSFER DATA FROM IBM PC TO HP 1000

```
Contribution Name.....: IBMPC
   Title..............: Transfer data from IBM PC to HP 1000
   File Names.........: 00. Rename Transfer File
                      : 01. 'PCDOC Submission File
                      : 02. "PCDOC  - Additional Documentation
                      : 03. #INITL  - TR file to initialize line
                      : 04. &TRANS  - Basic source for IBM PC
                      : 05. &IBMPC - Fortran source program to read dat
   Operating System...: Rte A/VC+
   Language(s)........: Ftn7x
   Keywords...........: 1. PC
                      : 2. DUMP
                      : 3. DATA COMM
   External Support Req'd...: IBM PC Basic
   If Re-submission, Reason.: N/A
Contributor's Name.....: Donald R. Shapiro
            Company....: Logistics Systems
            Street.....: 199 Wells Avenue
            City.......: Newton Centre
            State......: Ma.
            Country....: U.S.A.
            Zip Code...: 02159
            Phone Number..: (617) 965-1111
Program Abstract.......:
   IBMPC allows data transfer from an IBM PC to an HP1000 using a serial
   port on the IBM PC and the HP12040B 8-channel mux card on the HP1000.
Additional Documentation....: See "PCDOC
```

DATA ENTRY / SAVING / PLOTTING PACKAGE

Contribution Name.....: ANNN01
Title.....: Data Entry / Saving / Plotting Package
File Names.....: 00. Rename Transfer File
: 01. 'PLTSV - Submission File
: 02. &PLTSV - Main Source File
: 03. &PLTS1 - Plotting Segment Source
: 04. &PLTS2 - Labeling Segment Source
: 05. &PLTS3 - Y-Axis Segment Source
: 06. &PLTS4 - Labeling Segment Source
: 07. &PLTS5 - Title Segment Source
: 08. <PLSUB - Plotting Library Source
: 09. <NPSUB - Non-Plotting Library Source
: 10. %PLTSV - Main Relocatable
: 11. %PLTS1 - Plotting Segment Relocatable
: 12. %PLTS2 - Labeling Segment Relocatable
: 13. %PLTS3 - Y-Axis Segment Relocatable
: 14. %PLTS4 - Labeling Segment Relocatable
: 15. %PLTS5 - Title Segment Relocatable
: 16. =PLSUB - Plotting Library Relocatable
: 17. =NPSUB - Non-Plotting Library Relocatable
: 18. *PLTSV - Compile Transfer File
: 19. ^PLTSV - Loader File
: 20. /PLTSV - Turn on Segments
: 21. \PLTSV - Turn off Segments
: 22. &DLTBL - Graphics Device Table Source
: 23. %DLTBL - Graphics Device Table Relocatable
: 24. &LDSEG - Segment Loader Source
: 25. =LDSEG - Segment Loader Relocatable
Operating System.....: RTE-IVB
Language(s).....: FTN4
Keywords.....: 1. Plotting
: 2. Graphics
: 3. Storage
: 4. Data mgmt
External Support Req'd...: Graphics/1000
: 9872 Plotter (Or any Graphics/1000 Device)
: 2648 Terminal (Or any Graphics/1000 Device)
If Re-submission, Reason.:

Contributor's Name.....: Jeffrey Sweet
Company.....: Air Force Avionics Lab
Street.....: AFWAL AARI-3
:
City.....: Wright-Patterson AFB
State.....: Ohio
Country.....: USA
Zip Code.....: 45433
Phone Number..: (513) 255-6361
Telex.....:

Program Abstract.....:

PLTSV is a system for Creating, Storing, and Plotting Data Files.
This is a quick and dirty utility for manipulating Data Plots.
These data files are assumed to be any quanity vs. time.
PLTSV is set up to plot to an HP 9872A and an HP 2648A graphics devices.
PLTSV only supports line plots, with one or two plots per page, and
up to 4 curves per plot, each with separate Y-axis. Data files can
be created and edited as type 3 files.

Additional Documentation....:

To Load: TR,*PLTSV,1G where 1G is the location of the Sources
It is necessary that the Graphics/1000 Library %GPS be available at
Load Time. If any Graphics devices other, than an HP 9872 Graphics
plotter, and an HP 2648A Graphics Terminal, are to be used, the
subroutine UPGPS in <PLSUB must be modified.

PSWD J056

CHANGE PASSWORDS IN @+CCT!

Contribution Name.....	PSWD
Title.....	Change passwords in @+CCT!
File Names.....	00. Rename Transfer File
	01. 'PSWD Submission File
	02. &PSWD - Source
	03. %PSWD - Relocatable
	04. #PSWD - LINK command file
	05. $FNEWG - Rev. 2341 (fixes bug in OPEN) (use if loading on C.83 or later) (really $FNEWF, but renamed)
	06. &GTSID - get session ID number
	07. %GTSID - relocatable
Operating System.....	RTE-6VM (should work under RTE-4B, but not tested)
Language(s).....	FTN77, MACRO
Keywords.....	1. session
	2. SECURITY
External Support Req'd...	Accounts System
If Re-submission, Reason.	no
Contributor's Name.....	R. Arthur Gentry
Company.....	AT&T Communications
Street.....	Rm 785
	811 Main St.
City.....	Kansas City
State.....	Mo.
Country.....	USA
Zip Code.....	64141
Phone Number..	(816) 391-2446

Program Abstract.....: This program creates 6 character random passwords for every ID in the accounts file, except MANAGER.SYS and stores them in the accounts file. See submission for further info.

IMAGE REPORT PROGRAM

```
Contribution Name.....:QBASE
   Title..............:Image report program
   File Names.........: 00. Rename Transfer File
                      : 01. 'QBASE SUBMISSION FILE
                      : 02. #QBASE LOADR FILE
                      : 03. $QBASE LIBRARY
                      : 04. %QBASE MAIN
                      : 05. %QBAS1 SEGMENT 1
                      : 06. %QBAS2 SEGMENT 2
                      : 07. %QBAS3 SEGMENT 3
                      : 08. %QBAS4 SEGMENT 4
                      : 09. %QBAS5 SEGMENT 5
                      : 10. %QBAS7 SEGMENT 7
                      : 11. %QBAS8 SEGMENT 8
                      : 12. %QBASR SEGMENT R
                      : 13. %QBASI SEGMENT I
                      : 14. SCCOST SAMPLE IMAGE SCHEMA
                      : 15. RPCOST SAMPLE REPORT PROCEDURE
                      : 16. RPORT  SAMPLE REPORT
                      : 17. >QBASE
                      : 18. >QBF1
                      : 19. >QBF2
                      : 20. >QBS1
                      : 21. >QBS2
                      : 22. >QBS3     MANUAL FOR QBASE ARE
                      : 23. >QBR1
                      : 24. >QBH1     BRUNO SLIDE FILES
                      : 25. >QBH2
                      : 26. >QBB1
                      : 27. >QBE1
                      : 28. >QBE2
   Operating System...: RT6VM
   Language(s)........: FTN7X,ASMB
   Keywords...........: 1. Reports
                      : 2. IMAGE
   External Support Req'd...: IMAGE 1000 92069
   If Re-submission, reason.:
Contributor's Name....: HAL HARP
             Company..: NAVWPNSUPPCEN
                      : CODE 70613
                      : BLDG. 41NE
             City.....: CRANE
             State....: IN.
             Country..: USA
             Zip Code.: 47522
             Phone Number..: 812-854-1034
Program Abstract......: SEPT. 1, 1984
```

THIS IS A PRELIMINARY VERSION OF AN IMAGE REPORTING PROGRAM.
SOME FEATURES ARE:

1. CROSSES DATA SETS AND DATA BASES USING A UNIQUE KEY NAME.
2. ALLOWS ITEM DATA TO BE PRINTED IN HEADER STATEMENTS.
3. SORTS 1,000,000 TIMES FASTER THAN QUERY.(ROUGH ESTIMATE)
4. TIME,DATE IN HEADER STATEMENTS.

THE LIBRARY $DMBSY IS A LINDEXED VERSION OF %DBMS,%LOCAL,%NO/DS, CONTAINED IN YOUR IMAGE/1000 92069 PACKAGE.

THE QBASE MANUAL IS CONTAINED IN FILES 17 THRU 29. THESE ARE TYPE 13 BRUNO SLIDE FILES. IF YOU DON'T USE BRUNO CONTACT ME AND I WILL SUPPLY A PRINTED MANUAL.

AS THIS IS A PRELIMINARY VERSION I AM SUBMITTING IT IN A WORKABLE RELOCATABLE FORMAT. SOME FEATURES DO NOT WORK: GROUPING,TOTALS,EDIT. AT SOME LATER DATE THE PACKAGE WILL BE RE-SUBMITTED INCLUDING SOURCE FILES.

QBASE USES VMA AND REQUIRES A 64 PAGE PARTITION. IT WILL PRESENTLY HANDLE 76,792 ITEMS WITH A POTENTIAL OF 2,147,483,647.

QBASE WAS WRITTEN BY RICK CALENTINE OF NAVWPNSUPPCEN CRANE.

RPCHK J058

CHECK FOR NON-RP'ABLE TYPE 6 FILES

```
Contribution Name.....: RPCHK
   Title..............: Check for Non-RP'able Type 6 Files
   File Names.........: 00. Rename Transfer File
                      : 01. 'RPCHK Submission file
                      : 02. &RPCHK Ftn7x source
                      : 03. %RPCHK New-style relocatable
   Operating System...: RTE-6, A
   Language(s)........: Ftn7x
   Keywords...........: 1. Files
                      : 2. ID Segment
                      : 3. Transportable
                      : 4. System
                      : 5.
   External Support Req'd...: CI file system.
   If Re-submission, Reason.:
Contributor's Name.....: Don Pottenger
            Company....: Hewlett-Packard Co.
            Street.....: 11000 Wolfe Road
            City.......: Cupertino
            State......: CA
            Country....: USA
            Zip Code...: 95014
            Phone Number..: (408) 257-7000
            Telex......:
Program Abstract.....: RPCHK checks the files specified by its first
argument, a file mask, to see if they will RP.  An optional parameter tells
RPCHK to purge old (non-RP'able) type-6 files.  This program is especially
handy after a gen, to eliminate those non-transportable dead program files
that lay around the filesystem.  The source code is a good example of how
to use the new FMP masking calls on a runstring-specified mask.

Additional Documentation....: Run it without any parameters for the usage.
Usage:  RPCHK, fileMask [,PU]
```

HP 264X HARDCOPY PRINTOUT

Contribution Name.....	SCAN
Title.....	HP 264x Hardcopy Printout.
File Names.....	00. Rename Transfer File.
	01. 'SCAN - Submission file.
	02. &SCAN - Source file.
	03. #SCAN - LINK command file.
Operating System.....	RTE-6/VM
Language(s).....	FTN7X
Keywords.....	1. Terminal
	2. Printer
External Support Req'd...	$FMP6 library, $ASUBS library.
If Re-submission, Reason..	Updated to work with CI.
Contributor's Name.....	John L. Anderson Jr.
Company.....	U.S. Naval Station
Street.....	WQEC Code 331
City.....	Seal Beach
State.....	CA.
Country.....	USA
Zip Code.....	90740
Phone Number..	(213) 594-7351
Telex.....	

Program Abstract.....:

SCAN is a FORTRAN program that supplies a terminal hard-copy function for Hewlett-Packard's RTE systems using the 264x terminals using a 12966A interface. SCAN emulates a terminal hard-copy device by interrogating the terminal's local memory and transmitting its contents to the standard system printer. To get a copy of all of the terminal's contents type: RU,SCAN. SCAN will automatically send the cursor to the home position and transfers the display information to the system printer (Lu 6). For a partial scan, type: RU,SCAN,,P (Move the cursor to the first line to be copied before typing "return"). SCAN will copy from that line up to but not including the line containing RU,SCAN,,P. in either case, a form feed is provided after the copy as an added convenience. The output is also spooled automatically for immediate print out. An Lu can be specified as the first parameter to output to a difference line printer.

Additional Documentation....:

$ASUBS library is in another contribution.

FILE WINDOWS FOR HP-232X TERMINALS

Contribution Name		See
Title		File windows for HP-232X terminals
File Names	00.	Rename Transfer File
	01.	'SEE Submission File
	02.	&SEE FORTRAN source file
	03.	%SEE Relocateable
	04.	$C2623 Relocatable library
	05.	&C2623 Library FORTRAN source
	06.	#SEE LINK command file
Operating System		RTE-6/VM
Language(s)		FORTRAN 77
Keywords	1.	Window
	2.	Graphics
	3.	Terminal
	4.	
	5.	
External Support Req'd		Library file $C2623
If Re-submission, Reason		
Contributor's Name		Wayne Bergeron
Company		General Electric
Street		210 Wynn Drive
City		Huntsville
State		Alabama
Country		USA
Zip Code		35805
Phone Number		

Program Abstract: Are you tired of people showing off their microprocessor's windowing capability, and asking how you can use a terminal without that capability ? Well, if the light isn't too bright, you too can amaze the uninitiated with 'windows' on you HP-2623A, and HP-2627 terminals. I wrote this program to have various parts of a program under development displayed on the graphics display of my terminal. I have been able to display up to 10 or so small modules in graphics, while editing in the alphanumeric display. Two keystrokes switch the two displays on or off. To use it, position the graphics cursor, turn on the graphics display, and 'RU,SEE,FILEX::CR'.

Additional Documentation: See the program listing.

SNOOP J061

EXAMINE SWAPPED PROGRAM

```
Contribution Name.....:  SNOOP
   Title..............:  Examine swapped program
   File Names.........: 00. Rename Transfer File
                      : 01. 'SNOOP  Submission file
                      : 02. &SNOOP  FTN4X Source
                      : 03. &SNOOA  ASMB Source
                      : 04. "SNOOP  Documentation file
   Operating System...:  RTE IVB
   Language(s)........:  FTN4X,ASMB
   Keywords...........: 1. Debug
                      : 2. System
                      : 3. Utility
                      : 4.
                      : 5.
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Carl Falstrom
            Company....:  ACCESS Corporation
            Street.....:  4815 Para Drive
                      :
            City.......:  Cincinnati
            State......:  Ohio
            Country....:  USA
            Zip Code...:  45237
            Phone Number..:  (513) 242-4220
            Telex......:
Program Abstract.....:  If you have ever had to resort to insert-
ing numerous write statements throughout a program you are debugging
because loading the DBUGR with your program causes memory overflow,
SNOOP can help.  By suspending the program under test (either pro-
gramatically or with 'SS,PROG') and forcing the program to swap
out you may use SNOOP to display program code and data.  Use the
load map and symbol tables to locate the addresses of interest and
SNOOP will display the contents.

Compile &SNOOP with FTN4 or FTN4X and assemble &SNOOA.  Load the
resulting relocatables as a BG program and you are ready to SNOOP.

Additional Documentation....:  See the documentation file "SNOOP for usage.

Filename Alterations for the Swap Tape:
Original file name &INVRS is now &SNOOA on this tape.
```

SPINT J062

SPOOL INTERFACE LIBRARY

```
Contribution Name.....: SPINT
   Title..............: Spool Interface Library
   File Names.........: 00. Rename Transfer File
                      : 01. 'SPINT  Submission file
                      : 02. &SPINT
                      : 03. &SPING
                      : 04. %SPINT
                      : 05. "SPINT  Paper from conference
   Operating System...: RTE 6/VM
   Language(s)........: FTN77
   Keywords...........: 1. SPOOLING
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Bob Hilton
            Company....: SunFlooring, Inc.
            Street.....: 7475 Chancellor Drive
            City.......: Orlando
            State......: Florida
            Country....: USA
            Zip Code...: 32809
            Phone Number..: 305-351-6440
            Telex......:
Program Abstract.......:
```

A set of routines for programmatic handling of spooling. Their usage can be instrumental in maintaining a high degree of printer utilization, and system and operator efficiency. See file "SPINT or the 1984 San Jose conference proceedings.

SPINW J063

LETTER-QUALITY PRINTER SETUP UTILITY

```
Contribution Name.....: SPINW
   Title..............: Letter-quality Printer Setup Utility
   File Names.........: 00. Rename transfer file
                      : 01. 'SPINW Submission File
                      : 02. &SPINW
                      : 03. %SPINW
   Operating System...: RTE-6VM
   Language(s)........: FTN7X
   Keywords...........: 1. Printer
                      : 2. Utility
                      : 3. Word Processing
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: William L. Steele
            Company....: Tobacco Institute Testing Laboratory
            Street.....: 2 Taft Court, Suite 201
            City.......: Rockville
            State......: MD
            Country....: USA
            Zip Code...: 20850
            Phone Number..: 301-294-8582
Program Abstract.......:
```

Spinw is a menu driven utility for setting margins, line spacing and pitch on letter-quality printers responding to Diablo control codes. It is especially handy to run from EDIT prior to listing text.

It works with a Model 7725 Spinwriter interfaced with 12966A card using driver DVF00, and should work with a Diablo 630. See source for more details or run program and select the information option from menu.

Change variable LUOUT in source code to printer lu number. Compile SPINW with FTN66 option only.

Additional Documentation....:

USER ACCESS TO SYSTEM SPOOL FILES

```
Contribution Name.....: SPLUM
   Title..............: User access to system SPOOL files.
   File Names.........: 00. Rename Transfer File.
                      : 01. 'SPLUM - Submission file.
                      : 02. &SPLUM - Spool Control Program.
                      : 03. &SPOLU - Spool setup program.
                      : 04. &SPLOT - Spool output program.
                      : 05. &IFMGR - FMGR error processor.
                      : 06. *SPLUM - LOADR command file.
   Operating System...: RTE-6/VM
   Language(s)........: MACRO
   Keywords...........: 1. System
                      : 2. Spooling
   External Support Req'd...: Spool system must be in system generation.
   If Re-submission, Reason.: Corrected problems with lost spool files.
Contributor's Name.....: John L. Anderson Jr.
             Company...: U.S. Naval Station
             Street....: WQEC Code 331
             City......: Seal Beach
             State.....: CA.
             Country...: USA
             Zip Code..: 90740
             Phone Number..: (213) 594-7351
Program Abstract.......:
```

This set of routines allows the user to access the system SPOOL files through simple program calls. All security checking is bypassed so any user may access the SPOOL files. The units to be spooled must be setup by GASP when the system is initialized for the first time. 'SPLUM' must be loaded as a permanent program by 'LOADR'. The JOBFIL is now locked when being updated to avoid multiuser contentions.

Additional Documentation....:

Program calls:

SPOLU schedules program SPLUM which sets up a spool request for a spool pool file. See &SPOLU listing for calling sequence.

SPLOT makes a call to EXEC to schedule SMP for a close spool and pass operation. See &SPLOT listing for calling sequence.

CI SPOOLING FOR RTE-6/VM

Contribution Name.....	SPOOL
Title.....	CI Spooling for RTE-6/VM.
File Names.....	00. Rename Transfer File.
	01. 'SPOOL - Submission file.
	02. &SPOOL - Spool Control Program.
	03. &ISPON - Spool setup program.
	04. #SPOOL - LINK command file.
Operating System.....	RTE-6/VM
Language(s).....	FTN7X, MACRO
Keywords.....	1. Conversion
	2. Spooling
External Support Req'd...	Spool system must be in system generation.
If Re-submission, Reason.:	
Contributor's Name.....	John L. Anderson Jr.
Company.....	U.S. Naval Station
Street.....	WQEC Code 331
City.....	Seal Beach
State.....	CA.
Country.....	USA
Zip Code.....	90740
Phone Number..	(213) 594-7351
Program Abstract.....	

This program allows RTE-6/VM CI user's to spool Lu's and files as RTE-A does. It is no longer necessary to go back to FMGR every time you want to change a spool setup. There are some limitations because of the way spooling is done in RTE-6. A blank cannot be inserted at the beginning of each line to suppress carriage control on lineprinters. Spool pool files are used in the same way the 'SL' command works under FMGR. The program must not be called 'SP' if it is on a FMGR cartridge. CI files cannot be spooled directly. Copy them to FMGR cartridges.

Additional Documentation....:

The following commands are available:

CI> Sp ON [Lu1] [Lu2]	Enables spooling to Lu1 or redirects spooling from Lu1 to Lu2.
CI> Sp OFf [Lu1]	Closes out spooling to Lu1.
CI> Sp STatus	Displays the status of all spools in the system.
CI> Sp KIll or KS [Lu1] or ['File']	Kills the spool file associated with the current Lu1 of the named file.
CI> Sp REstart 'File' or RS	Restarts the spool file from the beginning.
CI> Sp LIst 'File' [Lu1]	Queues the file for output to Lu1.

Note: The default for Lu1 is 6.

Note: $ASUBS is in another contribution.

SUPERUSER J066

MAKE USER SUPERUSER OR NON-SUPERUSER FOR SESSION

```
Contribution Name.....: SUPERUSER
   Title..............: Make user Superuser or non-Superuser for session
   File Names.........: 00. Rename Transfer File
                      : 01. 'SUPER Submission File
                      : 02. &SUPER
                      : 03. &ENERG
   Operating System...: RTE-A
   Language(s)........: FTN7X, MACRO
   Keywords...........: 1. Session
                      : 2. SECURITY
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: DALE S. GARCIA
            Company....: TECHNOLOGY DEVELOPMENT OF CALIFORNIA
                      : DEFENSE SYSTEMS GROUP
            Street.....: 624 SIX FLAGS DRIVE
                      :
            City.......: ARLINGTON
            State......: TEXAS
            Country....: USA
            Zip Code...: 76012
            Phone Number..: (817) 461-1242
            Telex......:
Program Abstract.....: This program can make the scheduling user a
                      : Superuser or make a Superuser a Normal user
                      : for the current session.
Additional Documentation....: The subroutine 'Energize' may be called to
                      : programatically make a user a Super/Non-super
                      : user.
```

TIME J067

SET SYSTEM TIME AND TEACH ABOUT SOFTKEYS

```
Contribution Name.....: TIME
   Title..............: Set System Time and teach about softkeys
   File Names.........: 00. Rename Transfer File
                      : 01. 'TIMEH Submission File
                      : 02. &TIMEH
                      : 03. %TIMEH
   Operating System...:  RTE-6 V/M
   Language(s)........:  FORTRAN 7X
   Keywords...........: 1. Time
                      : 2. Softkeys
   External Support Req'd...: none
   If Re-submission, Reason.: n/a
Contributor's Name.....: David Roggendorff
            Company....: General Electric Company
            Street.....: 110 Wynn Dr, NW.
                      :
            City.......: Huntsville
            State......: AL
            Country....: U.S.A.
            Zip Code...: 35801
            Phone Number..: 205-837-7701 X 140
Program Abstract.....: This submission is useful as the first
program in WELCOM to help the new or occasional operator get familier
with the use of the terminal in an interactive automatic operation.
Help is available for two types of prompts - 1) data entry and 2) soft-
key responsing.

Loading:  Use LINK,%TIMEH   or   LOADR,,%TIMEH

Additional Documentation....: Run TIME and press return at prompts.
```

TOULB J068

HP150 TOUCH SCREEN SUBROUTINE LIBRARY

Contribution Name	TOULB
Title	HP150 TOUCH SCREEN SUBROUTINE LIBRARY
File Names	00. Rename Transfer File
	01. 'TOULB Submission File
	02. &TOULB
Operating System	RTE-6VM, RTE-A.1, RTE-A
Language(s)	FTN7X
Keywords	1. PC
	2. Library
External Support Req'd	none
If Re-submission, Reason	
Contributor's Name	PETE BOWERS
Company	DOWELL SCHLUMBERGER
Street	PO BOX 2710
City	TULSA
State	OKLAHOMA
Country	USA
Zip Code	74101
Phone Number	(918)250-4286
Telex	
Program Abstract	A SERIES OF SUBROUTINES TO UTILIZE THE TOUCH SCREEN CAPABILITY OF THE HP150 FROM THE HP1000.
Additional Documentation	

TRANSPARENCY PLOTTER (GRAPHICS 1000/II VERSION OF BRUNO)

Contribution Name.....: TPLOT
Title.....: Transparency plotter (Graphics 1000/II version of BRUNO)
File Names.....: 00. Rename Transfer File
: 01. 'TPLOT SUBMISSION FILE
: 02. &UPSHF
: 03. &BLBRD
: 04. &BILBD
: 05. &TPLOT
: 06. &TPLT3
: 07. &TPLT4
: 08. &TPLT5
: 09. &TPLT6
: 10. &TPLT7
: 11. /TPLOT
: 12. #TPLOT
: 13. &TPLT0
: 14. $SKLIB
: 15. &TPLT2
: 16. &TPLT9
: 17. &TPLT8
: 18. &FORMA
: 19. &FORM6
: 20. %FORMA
: 21. %FORM6
: 22. %UPSHF
: 23. %BILBD
: 24. $SKLI2
: 25. &TPLT1
: 26. #BLBRD
: 27. %BLBRD
: 28. %TPLOT
: 29. %TPLT0
: 30. %TPLT1
: 31. %LIBRY
: 32. &LIBRY
: 33. $LIBRY
: 34. %TPLT2
: 35. %TPLT3
: 36. %TPLT4
: 37. %TPLT5
: 38. %TPLT6
: 39. %TPLT7
: 40. %TPLT8
: 41. %TPLT9
: 42. "TMANL
: 43. $DSUBD
: 44. &TSUBC
: 45. %TSUBC
: 46. $TSUBC
: 47. ?TPLOT TPLOT HELP FILE
: 48. &TEDIT
: 49. %TEDIT
: 50. ?TEDIT TEDIT HELP FILE
: 51. %PRNTF
: 52. %ITMLU
: 53. #TEDIT
: 54. ?STOF
: 55. #STOF
: 56. &STOF
: 57. %STOF STOF HELP FILE

(cont)

Operating System.....: RTE-6VM, RTE-A.1, RTE-A
Language(s).....: FORTRAN 77
Keywords.....: 1. GRAPHICS
: 2. PLOTTING
External Support Req'd...: GRAPHICS 1000/II AGP AND DGL
If Re-submission, Reason.: CONVERSION OF BRUNO TO GRAPHICS 1000/II
Contributor's Name.....: PETE BOWERS
Company.....: DOWELL SCHLUMBERGER
Street.....: PO BOX 2710
:
City.....: TULSA
State.....: OKLAHOMA
Country.....: USA
Zip Code.....: 74101
Phone Number..: (918)250-4286
Telex.....:
Program Abstract.....:

TPLOT is a Graphics 1000/II version of BRUNO

The BRUNO manual has been slightly modified and is included in "TMANL.

If you can use BRUNO then you can use TPLOT.

All BRUNO figure and slide files work with TPLOT.

The program BLBRD does the actual plotting and can be used independently of TPLOT.
The program TEDIT will allow you to edit a TPLOT slide file (this is a version of BRNED if you have seen that program before).
The program STOF will convert a slide file consisting of lines and circles into a figure file.
Using STOF and TEDIT it is possible to convert X,Y data into figure and/or slide files.

THINGS TO KNOW

TPLOT looks for work station programs in the form of W2623,W2648,W9872, etc. You can however specify the work station program in the run string. You may also specify the crn the font files are located on. If you do this the initialization time will be cut in half.

KNOWN BUGS

You cannot plot to your own terminal directly. We haven't had time to work this bug out and we just tell people to edit a slide file to see what it looks like.

This is not our bug but HP's. Theoretically you should be able to LINK TPLOT instead of using the LOADR. However a bug in HP's software kept giving us an EM82 error. We have not yet gone to the next software revision to see if this fixes this error. Loading works just fine except you have to contend with all those segments.

Additional Documentation....:

GRAPHICS 1000/II REFERENCE MANUALS

TRINT J070

INTERPRET IMAGE-2 LOG FILE TRANSACTIONS

Contribution Name	TRINT
Title	Interpret Image-2 Log File Transactions
File Names	00. Rename Transfer File
	01. 'TRINT Submission file
	02. &TRINT Source file
Operating System	RTE-A (and 6?)
Language(s)	FTN7X
Keywords	1. Image
	2. Database
	3.
	4.
	5.
External Support Req'd	An Image-2 logfile
If Re-submission, Reason.	
Contributor's Name	G. Masters & S. Wolfe
Company	MOD DQA/TS (ELEC)
Street	Royal Arsenal East
City	Woolwich SE.18
State	London
Country	UK
Zip Code	
Phone Number	
Telex	

Program Abstract:

List the transactions in an HP IMAGE-2 Transaction Log File, in a 'human readable' format.

The 'namr' of the Transaction Log File can be the 1st parameter in the program runstring. The 2nd parameter can be the 'namr' of a particular IMAGE-2 Root File to search for. If these parameters are omitted, the program will prompt for them. If the 3rd parameter is given as '6' (the standard HP line-printer LU) then the output will be directed there; else it will default to splurging onto the originating terminal.

AUTHOR'S NOTE

The program was bolted together in a hurry, when IMAGE-2 rudely burst into our particular corner of the Cosmos. Thus treat the output with suspicion - at least until you feel you can trust it! We have been advised to plead 'Diminished Responsibility' at any future court procedings!

Additional Documentation....: See the prologue in the source file &TRINT.

TIME SUBROUTINES

Contribution Name.....: TSUBS
Title.....: Time Subroutines
File Names.....: 00. Rename Transfer File
: 01. 'TSUBS - Submission File
: 02. &ACDAT - Source code
: 03. &CHDAT - Source code
: 04. &DOWEK - Source code
Operating System.....: RTE-IVB,RTE-VI
Language(s).....: FTN4X
Keywords.....: 1. Time
External Support Req'd...:
If Re-submission, Reason.:

Contributor's Name.....: Ronnie F. Lee
Company.....: Gulf Oil Products Co.
Street.....: Chemical Row
:
City.....: Orange
State.....: Texas
Country.....: USA
Zip Code.....: 77630
Phone Number..: (409) 882-2169
Telex.....:

Program Abstract.....:

This is a collection of three simple subroutines to perform various time and date calculations. Subroutine ACDAT will read the clock and put the date (MM-DD-YY) in the first three words of an integer array in ascii format. Subroutine CHDAT will change a date from ascii to integer or vice-versa and check the date for validity. Subroutine DOWEK will calculate the day of the week for any date from 1-1-1 to 12-31-32767.

Additional Documentation....:

DISPLAY TYPE 6 FILE INFORMATION

```
Contribution Name.....: TYPE6
   Title..............: Display Type 6 file information.
   File Names.........: 00. Rename Transfer File.
                      : 01. 'TYPE6 - Submission file.
                      : 02. &TYPE6 - Program source.
                      : 03. #TYPE6 - Link command file.
   Operating System...: RTE-6/VM only.
   Language(s)........: FTN7X
   Keywords...........: 1. Files
                      : 2. System
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: WQEC Code 331
            City.......: Seal Beach
            State......: CA.
            Country....: USA
            Zip Code...: 90740
            Phone Number..: (213) 594-7351
Program Abstract.......:
```

This program allows the user to display information about type 6 files created by LINK. It gives program bounds, types and segment information.

Additional Documentation....:

Example run:

```
CI> TYPE6,FC.RUN

Program FC    created 11:03 am  May 10, 1983

Extended background,  Priority  90

Base page bounds for main 0002, 0154
Highest address+1 of largest segment 61030

Program size is 32 pages
EMA Size is   0 pages

Segment Directory Block   57  Word offset 062
Segment table address 15553, no. of segments   7
```

Segment	Name	Low address	High address	Entry point
	FC	02000	15662	03251
1	FC000	15663	42644	15663
2	FC001	15663	50072	15663
3	FC002	15663	61030	15663
4	FC003	15663	56542	15663
5	FC004	15663	24713	15663
6	FC005	15663	42206	15663
7	FC006	15663	33603	15663

```
Done
```

FMGR CARTRIDGE VERIFICATION PROGRAM

Contribution Name.....	VERIFY
Title.....	FMGR cartridge verification program.
File Names.....	00. Rename Transfer File.
	01. 'VERIF - Submission file.
	02. &VERIF - FTN7X Source.
	03. #VERIF - LINK command file.
Operating System.....	RTE-6/VM, RTE-A
Language(s).....	FTN7X
Keywords.....	1. Directory
	2. Reports
	3. Data Management
	4. Status
External Support Req'd...	
If Re-submission, Reason.	

Contributor's Name.....	John L. Anderson Jr.
Company.....	U. S. Naval Station
Street.....	WQEC Code 331
City.....	Seal Beach
State.....	CA.
Country.....	USA
Zip Code.....	90740
Phone Number..	(213) 594-7351
Telex.....	

Program Abstract.....:

This program verifies FMGR cartridges checking for any errors in directories and files. Statistics on the file space used is given along with other directory information. The space used by each file is compared with the directory label making sure there are no errors. Also the first record of each file is read making sure the directory points to valid information. The FSTAT call may need to be changed for RTE-A.

Additional Documentation....:

VIEW J074

VIEWSCREEN HANDLING PROGRAM

Contribution Name.....: VIEW
Title.....: Viewscreen Handling Program
File Names.....: 00. Rename Transfer File
: 01. 'VIEW - Submission file
: 02. *VIEW - Compile command file for VIEW
: 03. #VIEW - Link command file
: 04. "VIEW - View help file (ASCII)
: 05. &VIEW - Source code
: 06. %VIEW - Compiled code
: 07. *VLIB - Compile command file for $VLIB
: 08. &VLIB - Source code for $VLIB
: 09. $VLIB - VIEW interface library
: 10. *RR - Compile command file for R
: 11. #R - Link command file
: 12. "R - R help file (ASCII)
: 13. &R - Source code
: 14. %R - Compiled code
Operating System.....: RTE-6/VM, RTE-4B
Language(s).....: Pascal
Keywords.....: 1. Documentation
: 2. Help
: 3. Terminal
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: David J. DeLisle
Company.....: N.S.W.S.E.S. (U.S. NAVY)
Street.....:
City.....:
State.....:
Country.....:
Zip Code.....:
Phone Number..:

Program Abstract.....:

VIEW is a program which handles viewscreens. Each line of the viewscreen may have several hundred characters in it. VIEW will read the image of a viewscreen from the terminal screen into a "type 25" file. If a viewscreen file has records longer than 256 characters, the system commands (such as ST) would truncate the lines, so VIEW has several commands to manipulate the type 25 files (ie COPY, MOVE, DISPLAY, SAVE). VIEW can also READ from the unprotected fields of a viewscreen into a disc file in a format which is easily read by other programs, or read fields from a disc file to fill the unprotected fields of a viewscreen. When VIEW reads unprotected fields, it will convert illegal characters (ie escape characters) into blanks and flag the problem in the disc file. VIEW will also sense input and report if the ENTER key was pressed, or which of the eight function keys was pressed, or if a read timeout occurred (set with an EXEC(3,22B,<centiseconds>)). The library $VLIB and the pascal library must be searched (in that order) to make calls from your programs which schedule VIEW and use it's commands. The program, R, is a version of the UNIX "MORE" program which works well with help files such as "VIEW as online utility documentation. R simply reads from a disc file a page at a time until the end of file has been reached or you press an 'N' or an 'n' at the end of a page.

VIEW will work well for database transaction programs, but is slow because the subroutines in $VLIB all schedule VIEW and communicate through disc files. You could simply merge portions of &VIEW into your programs and do some minor modifications if you need the additional speed.

Additional Documentation....: "VIEW, "R, &VIEW

TRACK MAP DVT TABLE

```
Contribution Name.....:    CS80
   Title..............:    Track map DVT table
   File Names.........: 00. Rename Transfer File
                        : 01. 'CS80    Submission file
                        : 02. &CS80    Source
                        : 03. %CS80    Relocatable
   Operating System...:    RTE-IVB,RTE-VIB,RTE-A,??
   Language(s)........:    FTN4,FTN4X,FTN7X,FTN77
   Keywords...........: 1. System Tables
                        : 2. disc
                        : 3. generation
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....:    Paul Abell
              Company..:    General Telephone
              Street...:    3007 Roxboro Rd.
                        :
              City.....:    Durham
              State....:    North Carolina
              Country..:    USA
              Zip Code.:    27704
              Phone Number..: 919-471-5825
              Telex....:
Program Abstract.....:
```

This program will evenly divide a track map for a CS80 disk drive and print a list of the required DVT entries which can be modified to suit your particular RTE-A generation needs. It can also divide the track map to suit your own personal layout, it does not have to be evenly divided. You can also specify how many lu's you wish to have on the drive.

Additional Documentation....:

It does not take in to account the cartridge tape drive associated with some drives. It also assumes a 96 sector/track configuration. The program is very simple and can be easily modified to suit your particular needs. Output can be to any device, controlled by the run line parameters. If you wish to output the information to a disk file, you can use this approach:

Use LU redirection, on an RTE-A system it might look something like this:

```
CI> SP
 RTE A.2  Spooling System
 Type ? for help
 -ON,6,#CS80
 -EX
CI> CS80,,6
  -----------
  -----------
  data prints out
  -----------
  -----------
CI> SP
 RTE A.2  Spooling System
 Type ? for help
 -OF,6
 -EX
CI>
```

On RTE-IVB or VIVM you might use something like this:

```
:LL,6,!CS80
:CS80,,6
 ----------------
 ----------------
  data prints out
 ----------------
 ----------------

:LL,1
:
```

HELP FILE FOR SPECIFIC TOPICS

Contribution Name	TRBL
Title	Help file for specific topics
File Names	00. Rename Transfer File
	01. 'TRBL Submission file
	02. &TRBL Source
	03. %TRBL Relocatable
	04. TRBFIL Data file
Operating System	RTE-IVB,RTE-VIB,RTE-A,??
Language(s)	FTN4,FTN4X,FTN7X,FTN77
Keywords	1. Documentation
	2. Help
External Support Req'd	FMP subroutines, if not available
If Re-submission, Reason	
Contributor's Name	Paul Abell
Company	General Telephone
Street	3007 Roxboro Rd.
City	Durham
State	North Carolina
Country	USA
Zip Code	27704
Phone Number	919-471-5825
Telex	
Program Abstract	

This program will list out information of any form by typing in a two (2) character topic name from the printed list. It was designed to aid dial up users or any user of the computer system when they encountered trouble with the system or an unusual ouput from a program that was not expected. When this occurs they type in TRBL from the file manager and it will give them a list of trouble topics to choose from. They type in a topic name and it will list out what ever is in the file under that topic. This method is used in the A system for help and error reporting. It is becoming very popular.

Additional Documentation....:

This program uses file manager routines to access and list out a type four (4) file. It uses the FMGR routine APOSN to simulate type two (2) file access. This gives very fast response from a very large sequential file. The program also simulates the FMPLISTPROGRAM approach of the RTE-A system, as does CI>. It will list out a crt screens worth of information and then stop, waiting for one character to be typed from the terminal. The character typed determines which further action to be taken. The program has a help function of two (2) question marks (??) which will print out the directory. Whenever new or more information is added, the program will update itself with new record pointers. Adding information or topics is documented in the data file. The data file name is TRBFIL with a security code of TF. This allows anyone to read the file, but only the manager to add or delete data, while allowing it to be on a cartridge accessable to any user.

WHO'S ON LINE ON WHAT NUMBER

Contribution Name	WHO
Title	Who's on line on what number
File Names	00. Rename Transfer File
	01. 'WHO Submission File
	02. &WHO Source
	03. %WHO Relocatable
Operating System	RTE-A VC+
Language(s)	FTN7X,FTN4X,FTN4
Keywords	1. Modem
	2. Accounting
External Support Req'd	VC+ on RTE-A
If Re-submission, Reason	
Contributor's Name	Paul Abell
Company	General Telephone
Street	3007 Roxboro Rd.
City	Durham
State	North Carolina
Country	USA
Zip Code	27704
Phone Number	919-471-5825
Telex	
Program Abstract	

This program will print out the active users on the system, the LU they dialed in on, or were on and the telephone number they attached to when they signed on.

Additional Documentation....:

The system entry point for the user ID table is obtained from the system generation output list file. Locate variable $USIDA and put this octal number in the program in place of the one that is there if it is different. The table called SESSION contains session numbers of legal LU's for your system. If you have more than 25 LU's in your system, increase the table size or decrease it as the case may be. Change the description of the phone number or terminal in array NUMBER to match your phone numbers or terminal configurations.

IBITS J078

BIT VECTOR MANIPULATION SUBROUTINE

Contribution Name	IBITS
Title	Bit Vector Manipulation Subroutine
File Names	00. Rename Transfer File
	01. 'IBITS Submission File
	02. &IBITS
Operating System	RTE
Language(s)	ASMB
Keywords	1. BIT
	2. ARRAY
External Support Req'd	EAU
If Re-submission, Reason.	
Contributor's Name	David Ratti
Company	Continental Testing Laboratories
Street	763 US HiWay 17-92
City	Fern Park
State	Florida
Country	USA
Zip Code	32730
Phone Number	(305) 831-2700
Telex	810-853-0252
Program Abstract	A subroutine to allow manipulation of individual bits in an integer array.
Additional Documentation	In source file.

DCODE J079

DECODE RELOCATABLE RECORDS

Contribution Name	DCODE
Title	Decode relocatable records
File Names	00. Rename Transfer File
	01. 'DCODE - Submission File
	02. &DCODE - Source File
Operating System	RTE-6/VM
Language(s)	Assembler
Keywords	1. Inverse
	2. Relocatable
External Support Req'd	.ENTR
If Re-submission, Reason.	
Contributor's Name	Robert Meldrum
Company	Telesat Canada
Street	333 River Road
City	Ottawa
State	Ontario
Country	CANADA
Zip Code	K1N 8A9
Phone Number	613-234-7612
Telex	053-4184
Program Abstract	With the introduction of RTE-6/VM, the relocatable record format changed. Many programs such as RELIA and MXREF no longer worked as a result. This subroutine was written to provide easy interfaces to both old and new relocatable records. (RELIA has been rewritten to use it but was not fully debugged in time for donation to the swap tape.)
Additional Documentation	Full documentation accompanies each subroutine.

DCIEC J080

INPUT ROUTINES W/ERROR CHECKING FOR THE HP1000

Contribution Name.....	DCIEC
Title.....	Input Routines w/error checking for the HP1000.
File Names.....	00. Rename Transfer File
	01. 'DCIEC - Submission file
	02. <DCIEC - Documentation file.
	03. &LBIEC - Source Code
	04. %LBIEC - Relocatable code
	05. *LBIEC - Transfer file
Operating System.....	RTE-IVB/6VM
Language(s).....	FTN4X
Keywords.....	1. Error
	2. INPUT
	3. INTERACTIVE
External Support Req'd...	none
If Re-submission, Reason.	
Contributor's Name.....	Scott Hill
Company.....	Pittsburgh-Des Moines Corporation
Street.....	1015 Tuttle Street / P. O. Box 1596
City.....	Des Moines
State.....	Iowa
Country.....	USA
Zip Code.....	50306
Phone Number..	515-244-6000 ext. 235
Telex.....	

Program Abstract.....:

These subroutines have been used at PDM for about two years and have eased the programming workload somewhat. Their primary goal is to provide a method of obtaining information from the user, and then assure that that information is valid for the specific use (ie. within specified range).

Additional Documentation....:

See submission <DCIEC for additional information.

NOTE ON DISCS:

The transfer file *LBIEC expects to have all files on cartridge 55. Use the editor to change this to fit your system. Also, *LBIEC will put the indexed file \LBIEC on cartridge 22. You may have to change this also.

LISP INTERPRETER

Contribution Name	LISP
Title	LISP INTERPRETER
File Names	00. Rename Transfer File
	01. 'LISP Submission File
	02. &LISP
	03. %LISP
	04. "LISP
Operating System	
Language(s)	PASCAL
Keywords	1. Interpreter
	2. Language
	3. AI
External Support Req'd	
If Re-submission, Reason	
Contributor's Name	Michael A. Moran
Company	
Street	1065 Greco Ave. #A103
City	Sunnyvale
State	CA
Country	USA
Zip Code	94087
Phone Number	408-737-9177
Telex	

Program Abstract:

This LISP interpreter is written in standard PASCAL modified slightly for the HP1000. It is approximately MACLISP in dialect except for function definition. Also APPLY doesn't work correctly. There are no arrays. All numbers are real. Any additions made should be sent to me so I can spread them around.

Additional Documentation:

ENTRY POINT MAPPING UTILITY

Contribution Name.....	ENMAP
Title.....	Entry Point Mapping Utility
File Names.....	00. Rename Transfer File
	01. 'ENMAP Submission file
	02. &ENMAP
	03. *ENMAP
	04. &MAPUT
Operating System.....	RTE-4B, RTE-6/VM
Language(s).....	FTN4X
Keywords.....	1. Relocatable
	2. Entry Points
External Support Req'd...	
If Re-submission, Reason.	

Contributor's Name.....	H. Anderson McKellar
Company.....	MCI Telecommunications
Street.....	906 N. Bowser
City.....	Richardson
State.....	Texas
Country.....	USA
Zip Code.....	
Phone Number..	214/234-3291
Telex.....	

Program Abstract.....:

Program to create a directory of entry points in one or more relocateable files. Input file may be either relocateable or a list of relocateables; output may be directed to either a device or a disc file. Reads RTE-6 extended-record (16-character label) files as well as the old format (5-character label) files. To run from FMGR, proper form is

:RU,ENMAP,<input file>,<optional output namr>

The input file must be type 3, 4, or 5. The default output namr is the scheduling device. If the parameters are omitted, a line is printed reminding the user of the proper run string format.

Additional Documentation.....: NONE

EXMAP J083

EXTERNAL REFERENCE MAPPING UTILITY

```
Contribution Name.....: EXMAP
   Title..............: External Reference  Mapping Utility
   File Names.........: 00. Rename Transfer File
                      : 01. 'EXMAP Submission file
                      : 02. &EXMAP
                      : 03. *EXMAP
                      : 04. &MAPUX  Same as &MAPUT in &ENMAP
   Operating System...: RTE-4B, RTE-6/VM
   Language(s)........: FTN4X
   Keywords...........: 1.  Relocatable
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:       H. Anderson McKellar
            Company....:       MCI Telecommunications
            Street.....:       906 N. Bowser
            City.......:       Richardson
            State......:       Texas
            Country....:       USA
            Zip Code...:
            Phone Number..:    214/234-3291
            Telex......:
```

Program Abstract.....:

Program to create a directory of entry points in one or more relocateable files. Input file may be either relocateable or a list of relocateables; output may be directed to either a device or a disc file. Reads RTE-6 extended-record (16-character label) files as well as the old format (5-character label) files. To run from FMGR, proper form is

:RU,ENMAP,<input file>,<optional output namr>

The input file must be type 3, 4, or 5. The default output namr is the scheduling device. If the parameters are omitted, a line is printed reminding the user of the proper run string format.

Additional Documentation.....: NONE

DSTAT J084

DISC STATUS REPORT

```
Contribution Name.....: DSTAT
   Title..............: Disc Status Report
   File Names.........: 00. Rename Transfer File
                      : 01. 'DSTAT        - SUBMISSION FILE
                      : 02. &DSTAT
   Operating System...: RTE-4B, RTE-6/VM
   Language(s)........: FTN77
   Keywords...........: 1.  Disc
                      : 2.  Data Mgmt
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:   Denny Allain
            Company....:   MCI Telecommunications
            Street.....:   906 N. Bowser Road
            City.......:   Richardson
            State/Country...:  Texas  USA   75081
            Phone Number....:  (214) 234-3291
            Telex......:   NA

Program Abstract.....:     DSTAT provides a display that gives
                           the user the capacities of a given
                           disc LU and the current utilization
                           in number of files, blocks, and
                           percentage of total available

Additional Documentation   None
```

DE J085

DIRECTORY END LIST

Contribution Name	DE
Title	Directory End List
File Names	00. Rename Transfer File
	01. 'DE Submission file
	02. &DE
Operating System	RTE-4B, RTE-6VM
Language(s)	Fortran
Keywords	1. Disc
	2. Directory
External Support Req'd	NONE
If Re-submission, Reason.	Originally printed in Communicator
Contributor's Name	Denny Allain
Company	MCI Telecommunications
Street	906 N. Bowser Road
City	Richardson
State	Texas
Country	USA
Zip Code	75081
Phone Number	(214) 234-3291
Telex	NA
Program Abstract	provides the last n (default = 20) entries in a given disc directory (maximum n = 40).
Additional Documentation	None

IDCHK J086

ID SEGMENT CHECKER

Contribution Name	IDCHK
Title	ID Segment Checker
File Names	00. Rename Transfer File
	01. 'IDCHK Submission File
	02. &IDCHK
Operating System	RTE-4B, RTE-6VM
Language(s)	Fortran
Keywords	1. System
	2. ID Segments
External Support Req'd	None
If Re-submission, Reason.	NA
Contributor's Name	Denny Allain
Company	MCI Telecommunications
Street	906 N. Bowser Road
City	Richardson
State	Texas
Country	USA
Zip Code	75081
Phone Number	(214) 234-3291
Telex	NA
Program Abstract	IDCHK reveals what programs are using the long and short ID segments how many are unused and a disc summary that includes all mounted discs, giving LU#, crn, next track, total # of tracks.
Additional Documentation	None

RELOCATABLE-FILE CROSS-REFERENCER

```
Contribution Name.....: QXREF
   Title..............: Relocatable-File Cross-Referencer
   File Names.........: 00. Submission transfer file
                      : 01. 'QXREF Submission file
                      : 02. &QXREF Enhanced Ftn7x source
                      : 03. &QXREO Original Ftn7x source
                      : 04. QXDIFF Scom's comparison of the two
                      : 05. %QXREF New-style Relocatable
   Operating System...: RTE-6, A (IVB and others, probably)
   Language(s)........: Ftn7x
   Keywords...........: 1. Relocatable
                      : 2. Cross-Reference
   External Support Req'd...: Load with $FNEWF to add CI-file capability.
   If Re-submission, Reason.:
Contributor's Name.....: Bill Gibbons/Don Pottenger
            Company....: Mirkheim Systems/Hewlett-Packard Co.
            Street.....:
                      :
            City.......:
            State......:
            Country....:
            Zip Code...:
            Phone Number..:
            Telex......:
Program Abstract.....: This program reads relocatable files
(old-style or new-style "extended" relocatables, or mixed) and prints out
information about the modules found in them.  QXREF tells which module calls
which module, which file each module is found in, and more.  This program
greatly eases the pain of maintaining a large program, libraries, or any
large programming project.  The code is a sparkling example of how to manage
freespace from Ftn7x, and also demonstrates a non-trivial use of the Ftn7x
ENTRY statement.

Additional Documentation....: Run QXREF without any parameters to see a
sample runstring.  Load it LB or EB and size it up as far as you can go.
```

Bill Gibbons of Mirkheim Systems wrote the original QXREF. Don Pottenger of HP modified it to allow hierarchical file names and implemented a bug fix that Bill had mentioned. Both files are presented in their entirety, with SCOM's opinion of their differences stored in QXDIFF.

Here's a heavily-edited sample of QXREF output on %QXREF:

```
QXREF object code cross-reference    Mon Sep 10, 1984   6:25 pm
------------------------------------------------------------
>>> File: %QXREF::X

  QXREF,4,90          24999-16407 REV.2434 840820
                      prog: 5395
                      lcom: WIDTH/1 OUTPUT/32 INPUT/1 RECORD/128 NAME/9
                            FREE/3
                      ents: QXREF .NFOP .NFCL .NFIN .NFCN .DNOP .DNCL .DNIN
                            .DNCN .DSOP .DSCL .DSIN .DSCN
                      exts: .DAD .EIO. .IIO. .FIO. .DTA. .CPM .F6ST .SIO.
                            .LBT .SBT .IBTE .IBST .MBT EJECT FLUSH OUT
                            FETCH_NAME INIT_OUT BREAK_CHECK SCAN_INIT SCAN
                            TACK_UPPERCASE ALLOCATE SEARCH GET_NAME TAB
                            LOGLU

  BREAK_CHECK,7       24999-16407 REV.2220 820518
                      prog: 24
                      ents: BREAK_CHECK
                      exts: .F6ST .EXIT IFBRK
```

(cont)

```
  INIT_OUT,7          24999-16407 REV.2220 820518
                      prog: 372
                      lcom: WIDTH/1
                      ents: INIT_OUT OUT TAB FLUSH
                      exts: .EIO. .DTA. .ENTR .CPM .SIO. .EXIT .SBST .SCO
                            .SST

  EJECT,7             24999-16407 REV.2220 820518
                      prog: 49
*** Labelled common size mismatch: OUTPUT
                      lcom: OUTPUT/15
                      ents: EJECT
                      exts: .EIO. .DTA. .EXIT .SCO

*******************************************************************************
Size totals:   prog: 7614
*******************************************************************************


Module          Level  Referenced by
------          -----  -------------
/HASH/              3   SEARCH INIT_SCAN
ALLOCATE            3   QXREF SEARCH
INIT_OUT            3   QXREF TACK
INIT_SCAN           2   QXREF
NEWREC              2   QXREF
QXREF               1
READ                2   QXREF


Entry           Defined in       Referenced by
-----           ----------       -------------
.DNCL           QXREF
ALLOCATE        ALLOCATE         QXREF SEARCH
BREAK_CHECK     BREAK_CHECK      QXREF
FETCH_NAME      FETCH_NAME       QXREF
OUT             INIT_OUT         QXREF TACK
QXREF           QXREF
TIME            TIME             QXREF
UPPERCASE       UPPERCASE        QXREF


Common block    Defined in       Referenced by
------------    ----------       -------------
FREE                             ALLOCATE INIT_SCAN SEARCH FETCH_NAME INIT
                                 QXREF
HASH            /HASH/           SEARCH INIT_SCAN
INPUT                            READ QXREF
NAME                             SEARCH FETCH_NAME GET_NAME QXREF
OUTPUT                           EJECT QXREF


Undef External  Referenced by
--------------  -------------
.BIO.           READ
.CBT            SEARCH
.EIO.           TIME EJECT INIT_OUT TACK QXREF
.ENTR           TIME INIT_OUT ALLOCATE INIT_SCAN SEARCH NEWREC TACK
                UPPERCASE FETCH_NAME GET_NAME READ
.EXIT           TIME EJECT INIT_OUT ALLOCATE TACK UPPERCASE GET_NAME READ
                BREAK_CHECK QXREF
.F6ST           ALLOCATE GET_NAME READ BREAK_CHECK QXREF
.FFRW           QXREF
.FIO.           QXREF
.FIOI           QXREF
.IAY.           READ
.IBST           QXREF
.IBTE           QXREF
MOD             TIME
RCPAR           QXREF
```

SC J088

MAC/ICD SUBCHANNEL MODIFIER

Contribution Name.....	SC
Title.....	MAC/ICD SubChannel modifier
File Names.....	00. Rename Transfer File
	01. 'SC Submission file
	02. &SC
	03. &IOPSY
	04. &WRT
	05. &TATMP
	06. "SC4
	07. "SC6
	08. "PAPER
Operating System.....	RTE-IVB, 6/VM
Language(s).....	FTN4X, FTN7X (66 rules)
Keywords.....	1. DISC
	2. SYSTEM TABLES
	3. MODIFY
External Support Req'd...	
If Re-submission, reason.	
Contributor's Name.....	Dan Felman
Company.....	HP/Rockville
Street	
City	Rockville
State/Country.	Maryland
Phone Number..	
Program Abstract.....	

As RTE users needs change, so is often the need to modify allocation of disc space. Often, it arises from the need to read someone else's disc pack, or maybe simply to increase a cartridge's size, or to fix a gen problem.

If you already went through the pains associated with this task, you probably did one of three things; 1, you returned the disc pack with your utmost regards; 2, you regenned your system with a new Track Map Table (TMT) to accomodate the new configuration; or 3, you got a hold of CMM4 or 6 from your friendly SE (sic, this could never happen !!) and patched (and prayed for) the current TMT to look the the way you want it.

Since I and other SEs went through that more than once, I decided that a program was needed to do the dirty work for us. The program I created runs on both RTE-IVB and RTE-6/VM and should help both the sophisticated user as well as the just-initiated in the RTE world.

Additional Documentation .....:

Search %TATMP provided only when loading under RTE-IVB. The RTE-6 system provides that subroutine, and is used by the program.

INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 1 OF 2

```
Contribution Name.....: GRPHX
   Title..............: Interactive 3-dimensional Graphics part 1 of 2
   File Names.........: 00. Rename Transfer File
                      : 01. 'GRPHX  Submission file (also 'GRPHY)
                      : 02. *GRPHX
                      : 03. *SP
                      : 04. "A.GRP
                      : 05.  $*GRPH
                      : 06.  $ttyp
                      : 07.  &A.GRP  -FTN7X MAIN SOURCE
                      : 08.  ***GRP  -TRANSFER FILE MERGE/SGMTR/MLLDR
                      : 09.  **grph  -LIST OF MODULES TO MERGE
                      : 10.  CMPMNU  -SOFTWARE TEXT COMPOSITOR MENU CFG
                      : 11.  GRPHLP  -HELP SCREEN FILE
                      : 12.  T.HP23  -SAMPLE CONFIGURATION FILE for the
                      : 13.  &A.REV  -Source
                      : 14.  #A.REV - Link Command file
                      : 15.  &A.PRI - Source
                      : 16.  #A.PRI - Link Command File
                      : 17.  "dpl   - dummy place holder
                      : 18.  &X.BED
                      : 19.  #X.BED
                      : 20.  &BRFIG
                      : 21.  &A.PLF
                      : 22.  #A.PLF
                      : 23.  &X.FNT
                      : 24.  #X.FNT
                      : 25.  &X.SKY
                      : 26.  #X.SKY
                      : 27.  &A.VIW
                      : 28.  #A.VIW
                      : 29.  VIWMNU
                      : 30.  &A.DRA
                      : 31.  CRTDEC - CRT declarations
                      : 32.  CRTCMN   CRT Common
                      : 33.  PPOCMN   Polygon model common (for graphic
                      : 34.  TEKCMN   Polygon model common (for graphic
                      : 35.  ***CGL -- Transfer file to merge and index
                      : 36.  **LCGL -- List of modules in library
                      : 37.  %K.RAN -- Library modules ...
                      : 38.  %V.DAY
                      : 39.  %T.LI3
                      : 40.  %T.LI4
                      : 41.  %V.NET
                      : 42.  %V.SSB
                      : 43.  %V.INC
                      : 44.  %V.TCK
                      : 45.  %T.CIR
                      : 46.  %T.TXT
                      : 47.  %T.LIN
                      : 48.  %T.LIP
                      : 49.  %T.RMO
                      : 50.  %T.BOX
                      : 51.  %T.SKY
                      : 52.  %V.R5M
                      : 53.  %V.D5P
                      : 54.  %V.OPE
                      : 55.  %V.CLO
                      : 56.  %V.RED
                      : 57.  %V.WRT
                      : 58.  %V.WR1
                      : 59.  %V.ADD
                      : 60.  %V.UPD
                      : 61.  %V.ATT
                      : 62.  %V.IN5
                      : 63.  %V.SUT
                      : 64.  %V.HTX
                      : 65.  %V.LTX
                      : 66.  %V.RWR
```

(cont)

GRPHX J089

INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 1 OF 2 (cont)

```
                                : 67.  %V.CMP
                                : 68.  %V.SAP
                                : 69.  %V.PSU
                                : 70.  %V.WRD
                                : 71.  %V.FRM
                                : 72.  %V.CMG
                                : 73.  %V.EUD
                                : 74.  %ILOGR
                                : 75.  %RWLOG
                                : 76.  %LSTMP
                                : 77.  %SYTIM
                                : 78.  %V.SDS
                                : 79.  %K.INI
                                : 80.  %K.OPR
                                : 81.  %K.ASK
                                : 82.  %K.PTR
                                : 83.  %K.WRT
                                : 84.  %K.IWR
                                : 85.  %K.LWR
                                : 86.  %K.RCW
                                : 87.  %K.FNC
   Operating System.....: RTE-IV/IVB/6VM
   Language(s).........:
   Keywords............: 1. Graphics
                        : 2. Interactive
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:James Lemon
            Company....:COMSAT/WSD
                      :Suite 750
            Street.....:2250 Imperial Highway
            City.......:El Segundo
            State......:CA
            Country....:USA
            Zip Code...:90245
            Phone Number..:
Program Abstract.......:  See the Procedings of the 1984 INTEREX
                          Conference at San Jose.
```

GRPHX J090

INTERACTIVE 3-DIMENSIONAL GRAPHICS PART 2 OF 2

```
Contribution Name.....: GRPHX
   Title..............: Interactive 3-dimensional Graphics part 2 of 2
   File Names.........: 00. Rename Transfer File
                      : 01. 'GRPHY  Submission file  (see also 'GRPHX)
                      : 02.  %K.LOD
                      : 03.  %K.REC
                      : 04.  %K.SLN
                      : 05.  %K.BLN
                      : 06.  %K.BL2
                      : 07.  %K.SCR
                      : 08.  %M.BMN
                      : 09.  %P.RCH
                      : 10. %P.WCH
                      : 11. %P.GET
                      : 12. %G.WRT
                      : 13. %CRTNM
                      : 14. %K.PAK
                      : 15. %K.FCK
                      : 16. %K.ICK
                      : 17. %K.RTJ
                      : 18. %K.JUS
                      : 19. %LUINP
                      : 20. %LEADR
                      : 21. %FMTIM
                      : 22. %TMYER
```

(cont)

	: 23. %CHFMT
	: 24. %ISLEN
	: 25. %STRIP
	: 26. %IPARS
	: 27. %BASCI
	: 28. %SSMOV
	: 29. %BPLOT
	: 30. %PTEXT
	: 31. %WCSMM
	: 32. %BORDR
	: 33. %PLTYP
	: 34. %V.GTI
	: 35. %A.CLS
	: 36. %V.CLS
	: 37. %A.SPL
	: 38. %V.GOS
	: 39. %RPOFI
	: 40. %PSTAT
	: 41. %TMOUT
	: 42. %NOTIM
	: 43. %FLUSR
	: 44. %FUSER
	: 45. %LIS23
	: 46. %IHPLU
	: 47. %ENACK
	: 48. %IBACI
	: 49. %LUINF
	: 50. %IEQT
	: 51. %OFFME
	: 52. %SCEDT
	: 53. %CMDST
Operating System.....:	RTE-IV/IVB/6VM
Language(s).....:	
Keywords.....:	1. Graphics
	: 2. Interactive
External Support Req'd...:	
If Re-submission, Reason.:	
Contributor's Name.....:	James Lemon
Company.....:	COMSAT/WSD
	:Suite 750
Street.....:	2250 Imperial Highway
City.....:	El Segundo
State.....:	CA
Country.....:	USA
Zip Code.....:	90245
Phone Number..:	
Program Abstract.....:	See the Procedings of the 1984 INTEREX Conference at San Jose.

HP2240 EXERCISER

```
Contribution Name.....: M2240
   Title..............:HP2240 Exerciser
   File Names.........:00. Rename Transfer File
                      :01. 'M2240   Submission file
                      :02. &M2240     Source
                      :03. %M2240     Relocatable
                      :04. "M2240     User Manual
                      :05. #M2240     Compile and Load File
                      :06. *M2240     Loader Transfer File
   Operating System...: RTE-6-VM
   Language(s)........: FTN7X
   Keywords...........: 1. HPIB
                      : 2. Measurement
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: M.Decreton
            Company....: CEN/SCK
            Street.....: Boeretang 200
                       :
            City.......: Mol
            Postal Code...: 2400
            Country....: Belgium
            Phone Number..:
            Telex......:

Program Abstract.....:
```

M2240 is an exerciser program for the HP2240 Measurement and Control Processor allowing easy programming of complex tasks, checking of errors and status read. By interactive dialogue, the operator can first use it as an instruction tool getting acquainted with the different commands, and second as an aid for the development and debugging of measurement and control procedures.

Additional Documentation....: User instructions in "M2240

ELECTRONIC MAILBOX

Contribution Name.....	POST
Title.....	Electronic mailbox
File Names.....	00. Rename Transfer File
	01. 'POST - Submission File
	02. %POST
	03. &POST
	04. #POST
	05. %INA
	06. &INA
	07. %UGLST
	08. &UGLST
	09. #UGLST
Operating System.....	RTE-6
Language(s).....	PASCAL,FTN77
Keywords.....	1. MAIL
	2. MESSAGE
	3. COMMUNICATIONS
External Support Req'd...	
If Re-submission, Reason.	
Contributor's Name.....	J. PARENT
Company.....	National service of metrologie
Street.....	Schoemakerstraat 97
City.....	Delft
State.....	
Country.....	Holland
Zip Code.....	2628 VK
Phone Number..	015-569271
Program Abstract.....	

This program is an electronic mailbox. When you let it run each time you log in , then you have an excellent mailing system.

With UGLST you can list out all the users with their username, userid, groupid and the filename POST will use for the mail.

Additional Documentation....:

EXPER J093

SMALL EXPERT SYSTEM

```
Contribution Name.....: EXPER
   Title..............: SMALL EXPERT SYSTEM
   File Names.........:00. Rename Transfer File
                      :01. 'EXPER   Submission file
                      :02. &EXPER     Source
                      :03. %EXPER     Relocatable
                      :04. "EXPER     User Manual
                      :05. #EXPER     Compile and Load File
                      :06. *EXPER     Loader Transfer File
   Operating System...: RTE-6-VM
   Language(s)........: FTN7X
   Keywords...........: 1. Expert Systems
                      : 2. AI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: M.Decreton
            Company....: CEN/SCK
            Street.....: Boeretang 200
                       :
            City.......: Mol 2400
            Country....: Belgium
            Phone Number..:
            Telex......:

Program Abstract.....:
```

EXPER is a small expert system allowing inference calculation through a first order knowledge base (set of rules).
It mainly contains a list processor and can perform forward and backward searches in a tree structure. Deduction and Verification can be asked, starting from a basic known situation.

```
Additional Documentation....: User instructions in 'EXPER
```

IPRIS J094

CALCULATE MOMENT OF INERTIA OF PRISMATIC BEAM

```
Contribution Name.....: IPRIS
   Title..............: Calculate Moment of Inertia of Prismatic Beam
                        matic Beam.
   File Names.........:00. Rename Transfer File
                      :01. 'IPRIS   Submission file
                      :02. "IPRIS  documentation file
                      :03. &IPRIS  source file
   Operating System...: RTE-IVB
   Language(s)........: FORTRAN IV
   Keywords...........: 1. Engineering
                      : 2. Geometry
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: CLAUWAERT Cyriel
            Company....: Opzoekingscentrum voor de wegenbouw
            Street.....: Woluwedal 42
                       :
            City.......: 1200 BRUSSELS
            State/Country.: Belgium
            Phone Number..: 02/767.51.11
            Telex......:
Program Abstract.....: Program IPRIS is a user-friendly program
             for the fast calculation of position of neutral axis and
             moment of inertia of a prismatic beam whether or not
             with an inserted (steel) beam.  It offers the possibili-
             ty to enter different moduli for the materials used in
             the section.  F.i. concrete sections in a beam that have
             different ages and consequently different moduli.
Additional Documentation....:
```

SPEECH SYNTHESIS

Contribution Name	VOICE
Title	SPEECH SYNTHESIS USING HP6942 MULTIPROGRAMMER
File Names	00. Rename Transfer File
	01. 'VOICE Submission file
	02. &VOICE Source
	03. %VOICE Relocatable
	04. "VOICE User Manual
	05. #VOICE Compile and Load File
	06. *VOICE Loader Transfer File
	07. &INHPV Initialiser for HP6942
	08. %INHPV Initialiser for HP6942
	09. MWZ MW instruction for HP6942
	10. &XFER Download subroutine
Operating System	RTE-6-VM
Language(s)	FTN4X
Keywords	1. Multiprogrammer
	2. Speech
External Support Req'd	
If Re-submission, Reason	
Contributor's Name	C.Van Ierschot, H. Marien
Company	SCK/CEN
State	Boeretang 200
City	Mol 2400
State	
Country	Belgium
Zip Code	
Phone Number	
Telex	

Program Abstract:

VOICE is a speech synthesis program using the HP6942 Multiprogrammer with one memory card, a pacer card and a D/A converter card.
The speech is produced from individual phonems stored as discrete sequential voltages.

Additional Documentation: User instructions in 'VOICE

VOICE J095

SPEECH SYNTHESIS

```
 Contribution Name.....: VOICE
    Title..............: SPEECH SYNTHESIS USING HP6942 MULTIPROGRAMMER
    File Names.........:00. Rename Transfer File
                       :01. 'VOICE   Submission file
                       :02. &VOICE     Source
                       :03. %VOICE     Relocatable
                       :04. "VOICE     User Manual
                       :05. #VOICE     Compile and Load File
                       :06. *VOICE     Loader Transfer File
                       :07. &INHPV     Initialiser for HP6942
                       :08. %INHPV     Initialiser for HP6942
                       :09. MWZ        MW instruction for HP6942
                       :10. &XFER      Download subroutine
    Operating System...: RTE-6-VM
    Language(s)........: FTN4X
    Keywords...........: 1. Multi-program
                       : 2. Speech
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....:C.Van Ierschot, H. Marien
              Company...:SCK/CEN
              State.....:Boeretang 200
              City......:Mol  2400
              Country...:Belgium

 Program Abstract.....:
```

VOICE is a speech synthesis program using the HP6942 Multiprogrammer with one memory card, a pacer card and a D/A converter card. The speech is produced from individual phonems stored as discrete sequential voltages.

```
 Additional Documentation....: User instructions in 'VOICE
```

M6942 J096

HP6942 EXERCISER

```
 Contribution Name.....:M6942
    Title..............:HP6942 Exerciser
    File Names.........:00. Rename Transfer File
                       :01. 'M6942   Submission file
                       :02. &M6942     Source
                       :03. %M6942     Relocatable
                       :04. "M6942     User Manual
                       :05. #M6942     Compile and Load File
                       :06. *M6942     Loader Transfer File
    Operating System...: RTE-6-VM
    Language(s)........: FTN7X
    Keywords...........: 1. Multi-program
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: M.Decreton
              Company...: CEN/SCK
              Street....: Boeretang 200
              City......: Mol 2400
              Country...: Belgium

 Program Abstract.....:
```

M6942 is an exerciser program for the HP6942 Multiprogrammer allowing easy programming of complex tasks, checking of errors and status read. By interactive dialogue, the operator can first use it as an instruction tool getting acquainted with the different commands, and second as an aid for the development and debugging of measurement and control procedures.

```
 Additional Documentation....: User instructions in 'M6942
```

M6942 J096

HP6942 EXERCISER

Contribution Name	M6942
Title	HP6942 Exerciser
File Names	00. Rename Transfer File
	01. 'M6942 Submission file
	02. &M6942 Source
	03. %M6942 Relocatable
	04. "M6942 User Manual
	05. #M6942 Compile and Load File
	06. *M6942 Loader Transfer File
Operating System	RTE-6-VM
Language(s)	FTN7X
Keywords	1. Multiprogrammer
External Support Req'd	
If Re-submission, Reason	
Contributor's Name	M.Decreton
Company	CEN/SCK
Street	Boeretang 200
City	Mol 2400
State	
Country	Belgium
Zip Code	
Phone Number	
Telex	

Program Abstract:

M6942 is an exerciser program for the HP6942 Multiprogrammer allowing easy programming of complex tasks, checking of errors and status read. By interactive dialogue, the operator can first use it as an instruction tool getting acquainted with the different commands, and second as an aid for the development and debugging of measurement and control procedures.

Additional Documentation....: User instructions in 'M6942

RJESY J097

DATA DISTRIBUTION TO/FROM IBM IN A DS ENVIRONMENT

```
Contribution Name.....:RJESY
   Title..............:Data distribution to/from IBM in a DS environment
   File Names.........:00. Rename Transfer File
                      :01. 'RJESY  Submission file
                      :02. &RJESY  Source code
                      :03. &RJECL  Source code
                      :04. &RJERC  Source code
                      :05. &RJESP  Source code
                      :06. &RJEPM  Source code
                      :07. %RJESY  Relocatable of &RJESY
                      :08. %RJECL  Relocatable of &RJECL
                      :09. %RJERC  Relocatable of &RJERC
                      :10. #RJEHL  Command file for RJE
                      :11. $RJELB  Library
                      :12. "RJESY  User and installation guide.
   Operating System...:RTE-IVB/(6VM ?)
   Language(s)........:FTN4X
   Keywords...........: 1. RJE
                      : 2. IBM
                      : 3. DS
                      : 4. Data Comm
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....:Renaat Grauwels
            Company...:University Hospital Gasthuisberg
            Street....:Herestraat 49
            City......:Leuven
            Country...:BELGIUM
            Zip Code..:3000
            Phone Number..:(016) 215764
Program Abstract......: This set of programs will send and
     receive JOB's to and from an IBM computer thru the use of RJE.
     The data to be transmitted or the destination of the data
     to be received may be anywhere in your DS network.
     The user need not have any knowledge about RJE or DS-1000.
     It will only work in an DS-1000 environment !
```

BNOAL J098

BRUNO COMPATIBLE PLOT PROGRAM

```
Contribution Name.....: BNOAL
   Title..............: Bruno compatible plot program
   File Names.........:00. Rename Transfer File
                      :01. 'BNOAL   Submission file
                      :02. &BNOAL   Source
                      :03. %BNOAL   Relocatable
                      :04. &BNOSB   Subroutines
                      :05. %BNOSB   Relocatable
                      :06. "BNOAL   Description
                      :07. #BNOAL   Compile and load file
                      :08. *BNOAL   loader transfer file
                      :09. "BNAS1   Bruno figure file # 1
                      :10. "BNAS2   Bruno figure file # 2
   Operating System...: RTE-6-VM
   Language(s)........: FTN7X
   Keywords...........: 1. Graphics
   External Support Req'd...: BRUNO
   If Re-submission, Reason.:
Contributor's Name.....: M.Decreton
            Company....: CEN/SCK
            Street.....: Boeretang 200
                       :
            City.......: Mol 2400
            Country....: Belgium
            Phone Number..:
            Telex......:


Program Abstract.....:

   BNOAL : plotprogram creating BRUNO compatible 'figure file'
```

TOOLS J099

TOOLKIT FOR STANDARD FILE HANDLING

```
Contribution Name.....: TOOLS
   Title..............: Toolkit for standard data file (SDF) handling
   File Names.........:00. Rename Transfer File
                      :01. 'TOOLS   Submission file
                      :02. 'SDFDC   documentation on SDF
                      :03. 'PRGDC   documentation on programs
                      :04. 'PLTDC   documentation on plot programs
                      :05. &INIFL
                      :06. &EXPFL
                      :07. &CYPFL
                      :08. &COMFL
                      :09. &REDFL
                      :10. &LISFL
                      :11. &SKPFL
                      :12. &MODFL
                      :13. &WRDFL
                      :14. &AVRFL
                      :15. &MTPFL
                      :16. &PCPRR
                      :17. &PLCEL
                      :18. &PLSDF
                      :19. &PLTEX
                      :20. &PLMLS
                      :21. &SUBR1
                      :22. PCPRR1
                      :23. PCPRRF
                      :24. COBDAT
                      :25. ITXDAT
                      :26. &SUBR2
   Operating System...: RTE-6-VM
   Language(s)........: FTN7X
   Keywords...........: 1. Tools
                      : 2. Files
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: M.Decreton
             Company..: CEN/SCK
             Street...: Boeretang 200
                      :
             City.....: 2400 Mol
             State....:
             Country..: Belgium
             Zip Code.:
             Phone Number..:
             Telex....:
Program Abstract......:
 This toolkit allows easy handling of measured data in standard data
 files (SDF) : file editing, graphical outputs, measurement procedures...
```

D2225 J100

DGL DEVICE HANDLER FOR THINKJET

```
Contribution Name.....: D2225
   Title..............: DGL device handler for ThinkJet
   File Names.........:00. Rename Transfer File
                      :01. 'D2225 submit file
                      :02. &D2225 programme source
                      :03. %D2225 programme relocatable
   Operating System...: RTE-6/VM maybe 4B and A
   Language(s)........: MACRO
   Keywords...........: 1. Graphics
                      : 2. Driver
   External Support Req'd...: GRAPHICS 1000 II VERSION 2.0
   If Re-submission, Reason.:
Contributor's Name.....: Michael Morgan and Wendy Green
            Company....: Royal Postgraduate Medical School
            Street.....: Du Cane Road
                      :
            City.......: LONDON
            State......:
            Country....: GREAT BRITAIN
            Zip Code...: W12 0HS
            Phone Number..: 01 743 2030 ext 239
            Telex......:
Program Abstract.......:

        This is the MACRO source code for a DGL device handler for
Version 2.0 of DGL (does not use RTRAN).    This device handler has
been copied from  $D0026  (2608a line-printer)   and is technically
still the copyright of HP.  It can only be used if you already have
a copy of GRAPHICS-1000 II version 2.0 as $DIDD is required.

Additional Documentation....:
```

WDUP J101

GO BACK ONE STEP IN THE DIRECTORY

```
Contribution Name.....: WDUP
   Title..............: Go back one step in the directory
   File Names.........: 00. Rename Transfer File
                      : 01. 'WDUP - Submission File
                      : 02. %WDUP
                      : 03. &WDUP
                      : 04. #WDUP
   Operating System...: RTE-6(ci), RTE-A
   Language(s)........: PASCAL
   Keywords...........: 1. DIRECTORY
                      : 2. CI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: J. PARENT
            Company....: National service of metrologie
            Street.....: Schoemakerstraat 97
                      :
            City.......: Delft
            State......:
            Country....: Holland
            Zip Code...: 2628 VK
            Phone Number..: 015-569271
Program Abstract.......:

This program let you go one step higher in the directory tree.
So you don't have to type in the complete working directory again.

Additional Documentation....:
```

EPLOT J102

INTERACTIVE PLOTTING PROGRAM

Contribution Name.....	EPLOT
Title.....	Interactive plotting program
File Names.....	00. Rename Transfer File
	01. 'EPLOT - Submission File
	02. %EPLOT
	03. &EPLOT
	04. #EPLOT
	05. %EPLTR
	06. &EPLTR
	07. #EPLTR
Operating System.....	RTE-6, RTE-A
Language(s).....	PASCAL
Keywords.....	1. PLOTTING
	2. GRAPHICS
	3. INTERACTIVE
External Support Req'd...	DGL
If Re-submission, Reason.:	
Contributor's Name.....	J. PARENT
Company.....	National service of metrologie
Street.....	Schoemakerstraat 97
City.....	Delft
State.....	
Country.....	Holland
Zip Code.....	2628 VK
Phone Number..	015-569271
Program Abstract.....	

This is an easy interactive plotting program on graphics terminals and with the datafile you can transfer your plot with the EPLTR program to a plotter.

Additional Documentation....:

SCAN J103

MEMORY OCCUPATION

Contribution Name.....	SCAN
Title.....	Memory occupation
File Names.....	00. Rename Transfer File
	01. 'SCAN - Submission File
	02. %SCAN
	03. &SCAN
	04. #SCAN
Operating System.....	RTE-6
Language(s).....	FTN77
Keywords.....	1. SYSTEM
	2. MEMORY
	3. ANALYZER
External Support Req'd...	
If Re-submission, Reason.:	SCAN now for 44 partitions
Contributor's Name.....	J.M. van Dongen
Company.....	National service of metrologie
Street.....	Schoemakerstraat 97
City.....	Delft
State.....	
Country.....	Holland
Zip Code.....	2628 VK
Phone Number..	015-569271
Program Abstract.....	

This program gives you an overview of the memory occupation and what programs are running on a particular moment.

Additional Documentation....:

AGEN J104

ELECTRONIC AGENDA

```
 Contribution Name.....: AGEN
    Title..............: Electronic agenda
    File Names.........: 00. Rename Transfer File
                       : 01. 'AGEN - Submission File
                       : 02. %AGEN
                       : 03. &AGEN
                       : 04. #AGEN
                       : 05. %MAGEN
                       : 06. &MAGEN
                       : 07. #MAGEN
                       : 08. %SLEEP
                       : 09. &SLEEP
                       : 10. RRAGEN
    Operating System...: RTE-6, RTE-A
    Language(s)........: PASCAL,FTN77
    Keywords...........: 1. CALENDAR
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: J. PARENT
              Company...: National service of metrologie
              Street....: Schoemakerstraat 97
                       :
              City......: Delft
              State.....:
              Country...: Holland
              Zip Code..: 2628 VK
              Phone Number..: 015-569271
 Program Abstract.....:
 This program is an electronic agenda on your terminal for a whole year
 and this source is for 12 users, but it is easy to expand it.
                      Runstring:   RU,AGEN,1,1,6
 There is also a program to make a file for a new year : MAGEN.
 And the datafile itself which is called RRAGEN. (The program expects it
 on cartridge DB).

 Additional Documentation....:
```

TREE J105

OVERVIEW OF DIRECTORIES

```
 Contribution Name.....: TREE
    Title..............: Overview of directories
    File Names.........: 00. Rename Transfer File
                       : 01. 'TREE - Submission File
                       : 02. %TREE
                       : 03. &TREE
                       : 04. #TREE
    Operating System...: RTE-6(ci), RTE-A
    Language(s)........: PASCAL
    Keywords...........: 1. DIRECTORY
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: J. PARENT
              Company...: National service of metrologie
              Street....: Schoemakerstraat 97
                       :
              City......: Delft
              State.....:
              Country...: Holland
              Zip Code..: 2628 VK
              Phone Number..: 015-569271
 Program Abstract.....:
 This program gives you an overview of all (sub)directories on your
 system and/or of an (sub)tree.
          RU,TREE,{<outlu>},{<filedescriptor>}
 Additional Documentation....:
```

ARRAY INITIALIZING PROGRAM

```
Contribution Name.....: DIMPN
   Title..............: Array Initializing Program
   File Names.........:00. Rename Transfer File
                      :01. 'DIMPN   Submission file
                      :02. &DIMPN   - Source
                      :03. %DIMPN   - Relocatable
                      :04. &TESTD   - Test file
                      :05. &PALI    - Parameter list for &TESTD
   Operating System...: RTE-M, RTE-4B
   Language(s)........: FTN4
   Keywords...........: 1. Array
                      : 2. Initialize
                      : 3. Pre-processor
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Ignat Stanev
             Company..: Telecommunications Research Institute
             Street...: 8, Hajdushka Poliana Str.
             City.....: Sofia
             Country..: BULGARIA
             Zip Code.: 1612
             Phone Number..: 870739
             Telex....: 22346 NIIS BG
Program Abstract.....:
```

DIMPN is a program we use to initialize arrays in FORTRAN programs. The array dimensions are written in the input file as four-character ASCII strings. It is assumed that each string begins with letters QZ in order not to mix it with other symbolic names in the program. The ASCII strings (3-th and 4-th characters) and the corresponding actual array dimensions are arranged in a parameter list with FORTRAN format (2A1,1X,4A1), i.e. the array dimension is up to four digits. DIMP searches each string in the parameter list and exchanges it in the output file with the corresponding actual dimension.

DIMPN asks for the parameter list name (file name), the input file name and the output file name. The output file is created by DIMPN and is used then as a source file.

To see how DIMPN operates use the supplied test data. Perform the following:

```
RU,DIMPN
give parameter list name: &PALI
give input file name: &TESTD
give output file name: [name]
```

Compare all DIMENSION statements in &TESTD with those in [name].

Additional Documentation....:

PASCM J107

AUTOMATIC COMPILING/EDITING/LINKING

```
Contribution Name.....: PASCM
   Title..............: Automatic compiling/editing/linking
   File Names.........: 00. Rename Transfer File
                      : 01. 'PASCM - Submission File
                      : 02. %PASCM
                      : 03. &PASCM
                      : 04. #PASCM
   Operating System...: RTE-6(ci), RTE-A
   Language(s)........: PASCAL
   Keywords...........: 1. PRE-PROCESSOR
                      : 2. PASCAL
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: J. PARENT
            Company....: National service of metrologie
            Street.....: Schoemakerstraat 97
                      :
            City.......: Delft
            State......:
            Country....: Holland
            Zip Code...: 2628 VK
            Phone Number..: 015-569271
Program Abstract.......:

This programs compiles pascal programs, if there is an error it
automaticily returns to the editor. When there are no errors then
it automaticily links.(if there is no linkcommandfile it goes
to the editor and asks you to make one).

Additional Documentation....:
```

PRFTN J108

FORTRAN SOURCE PREPROCESSOR

```
Contribution Name.....:   PRFTN
   Title..............:   FORTRAN SOURCE PREPROCESSOR
   File Names.........:00. Rename Transfer File
                      :01. 'PRFTN   Submission file
                      :02. &PRFTN
                      :03. %PRFTN
   Operating System...:   RTE IVB, 6/VM
   Language(s)........:   PASCAL
   Keywords...........: 1. FORTRAN
                      : 2. Pre-processor
   External Support Req'd...:   NONE
   If Re-submission, Reason.:
Contributor's Name.....:   DR.-ING. CHR. SCHMID
            Company....:   RUHR-UNIVERSITY BOCHUM
            Street.....:   P.O.BOX 102148 / IC3/141
            City.......:   D-4630 BOCHUM 1
            Country....:   F.R. GERMANY
            Phone Number..:   TEL. (0234) 700-4093
                      :   Telex 0825860
Program Abstract.......:
  PROCESSING OF ANY SOURCE FILES SUBSTITUTING EXPRESSIONS
  IN '<...>' BY A CONSTANT.
Additional Documentation....:
  USER INFORMATION IS INCLUDED AT THE BEGINNING OF THE SOURCE FILE.
```

UDOCU J109

FORMATTED DOCUMENTATION PROGRAM

```
Contribution Name.....: UDOCU
   Title..............: FORMATTED DOCUMENTATION PROGRAM
   File Names.........:00. Rename Transfer File
                      :01. 'UDOCU - SUBMISSION FILE
                      :02. &UDOCU - SOURCE PROGRAM
                      :03. %UDOCU - RELOCATABLE FILE
                      :04. $UDOCU - EDITOR-CREATED DATA FILE
                      :05. "UDOCU - OUTPUT FILE (UDOCU MANUAL)
   Operating System...: RTE-IVB
   Language(s)........: FORTRAN IV
   Keywords...........: 1. DOCUMENTATION
                      : 2. FORMATTING
   External Support Req'd...: NONE
   If Re-submission, Reason.:
Contributor's Name.....: DICK JOHNSTON & TERESA OWEN
            Company....: TRINITY FORGE, INC.
            Street.....: 947 TRINITY DRIVE
                      :
            CITY.......: MANSFIELD
            State......: TX
            Country....: USA
            Zip Code...: 76063
            Phone Number..: (817) 477-2697
            Telex......: 794820
Program Abstract.......: THIS PROGRAM USES AN EDITOR-CREATED
   DATA FILE TO PRODUCE FORMATTED DOCUMENTATION.  IN THE SAMPLE
   CASE PROVIDED, FILE '$UDOCU' PRODUCES THE OUTPUT FOUND IN FILE
   'OUTPUT'.  TO OBTAIN FORMATTED DOCUMENTATION ON THE PROGRAM
    'UDOCU', RUN THE FOLLOWING COMMAND.
            RU,UDOCU,LU,XX,XX,XX,CR
```

FCOM J110

ISSUE FMGR COMMANDS FROM A PROGRAM

```
Contribution Name.....: FCOM
   Title..............: Issue FMGR commands from a program
   File Names.........:00. Rename Transfer File
                      :01. 'FCOM    Submission file
                      :02. &FCOM  - FTN4X
   Operating System...: RTE-IV, RTE-6/VM with FMGR file system
   Language(s)........: FTN4X (FTN7X)
   Keywords...........: 1. FMGR
                      : 2. PROCEDURES
   External Support Req'd...: $IVLIB (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                      :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
```

FCOM is a program that enables you to issue FMGR commands from a program by calling the routines COMND and CFINI from contribution IVLIB. The routines take up very little space in your program. FCOM should be loaded permanently if used. FCOM is intended for use with the FMGR file system only.

Additional Documentation....: See the routine COMND in IVLIB.

IV LIBRARY

```
Contribution Name.....: IVLIB
   Title..............: General Purpose Library
   File Names.........:00. Rename Transfer File
                      :01. 'IVLBR   Submission file
                      :02. &IVLF1 - FTN4x compatible routines
                      :03. &IVLF2 - FTN4x compatible routines
                      :04. &IVLBA - ASMB  compatible routines
                      :05. &IVLB7 - FTN7X routines
                      :06. &IVLBM - MACRO routines
                      :07. >DDATA - Include file
                      :08. !IVLIB - Command file
                      :09. *IVLIB - Merge commands
                      :10. 'IVLIB - Documentation (WOLF format)
                      :11. 'IVHED -       "
                      :12. 'IVIND -       "
                      :13. 'IVLB7 -       "
                      :14. 'IVLBA -       "
                      :15. 'IVLBF -       "

   Operating System...: RTE-IV, RTE-6/VM.
                        Most routines (but not all) will
                        work in RTE-A.
   Language(s)........: FTN7X, ASMB, MACRO
   Keywords...........: 1. Library
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name....: Inge Vabekk
            Company...: GECO A/S
            Street....: P.o.box 330
                      :
            City......: N-1322 HOEVIK
            State.....:
            Country...: NORWAY
            Zip Code..:
            Phone Number..: 47 / 2 / 477060
            Telex.....:
Program Abstract......:
```

This library has been collected and developed over several years. Some of the routines have been taken from other CSL/1000 contributions. Using IVLIB may ease programming and give you smaller and more efficient programs. IVLIB is required by some of the other programs contributed by me.

In order to use the routine PROGRAM, program APLDR may be required. If you use DS/1000, use HP's APLDR, otherwise use the program contributed with WOLF.

Additional Documentation....: Use the transfer file !IVLIB to create the library.

BASIC PLOTTING ROUTINES

```
 Contribution Name.....: Nyquist plot
    Title..............: BASIC plotting routines
    File Names.........:00. Rename Transfer File
                       :01. 'BPLOT   Submission file
                       :02. ANV21 Nyquist plot
                       :03. ANV41 Bode plot          are BASIC programs
                       :04. ANV6  Multi Bode plot
                       :05. ANV10 Statistical plot
                       :06. ALL01
                       :07. ALL05   are data files for ANV21,ANV41,ANV6
                       :08. A1108B  is a data file for ANV10
                       :09. &TABLE  is the subroutine table for BASIC
                       :10. &PLOTU  is a FORTRAN routine
            for graphic initialization from BASIC
                       :11. &DMPLT  is a FORTRAN routine
            for HPIB graphic dump of 2648a graphic screen
                       :12. &ANVSO  is a FORTRAN program
            for Solartron 1250 Frequency  response analyzer
                       :13. &ANVGA  is a FORTRAN program
            for the control of an intelligent data acquisition peripheral
    Operating System...: basic
    Language(s)........: BASIC
    Keywords...........: 1. Engineering
                         2. Mathematics
                         3. Plotting
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: CESARE PAGURA
            Company....: I.P.E.L.P.   CNR
            Street.....: CORSO STATI UNITI 4
            City.......: 35100  PADOVA
            Country....: ITALY
            Phone Number..:
 Program Abstract.......:
```

The BASIC subroutine table generation can give some problems:

DO NOT USE RTETG TRANSFER FILE !!!

Execute an interactive loading session like this for %BA00

```
/LOADR: OP,RT
/LOADR: SZ,19
/LOADR: RE,%BA00
%BA00 24042 24072
/LOADR: RE,%DLTBL  see GRAPHIC 1000 manual !
 ...   ...   ...
/LOADR: RE,%PLOTU
 ...   ...   ...
/LOADR: SEARCH,%GPS   %GPS is the GRAPHIC 1000 library
  ...   ...   ...


etc. etc.
```

For the segment %BA01-02-03 etc. use the same procedure :

```
/LOADR: OP,RT
/LOADR: SZ,19
/LOADR: RE,%BA0x
```

Additional Documentation....:

PROGRAMMATIC INTERFACE FOR HP27201A VOICE SPEECH SYNTHESIZER

Contribution Name.....: VTALK
Title.....: PROGRAMMATIC INTERFACE FOR HP27201A VOICE SPEECH SYNTHESIZER
File Names.....: 00. Rename transfer file
: 01. 'VTALK Submission file
: 02. &VTALK Source code
: 03. %VTALK Relocatable for VTALK
: 04. #VTALK LINK command file for VTALK
: 05. &VCHEK Program to announce down lu's
: 06. %VCHEK Relocatable for VCHEK
: 07. #VCHEK LINK command file for VCHEK
: 08. &VSUBS Source - support library
: 09. $VSUBS Relocatable - support library
Operating System.....: RTE-6VM/A
Language(s).....: FTN4X & ASMB
Keywords.....: 1. Speech
: 2. Help
External Support Req'd...:IMAGE/1000
If Re-submission, Reason.:

Contributor's Name.....:Alan R. Whitney
Company.....:MIT Haystack Observatory
Street.....:Off Rt. 40
City.....:Westford
State.....:Massachusetts
Country.....:USA
Zip Code.....:01886
Phone Number..:(617) 692-4764

Program Abstract.....:

VTALK is a program interface to the HP27201A Speech Output Module and the accompanying HP27203A Speech Library. The goal of VTALK is to provide a friendly interface to the speech library so that by simply issuing the command

:RU,VTALK,<phrase>

the synthesizer will speak the specified phrase, so long as words within the phrase are within the speech library. VTALK also intercepts positive and negative integers from -999,999,999 to +999,999,999 and speaks them in standard format.

The Hp27201A Speech Output Module is supported by a standard RS-232 Interface and driver (HP 12966 and DVR05 or any Mux card.)

VCHEK is a demonstration program which scans all system lu's and announces any down lu's. If a program is waiting on a down lu, the name of the program is also stated. VCHEK includes subroutine SPEAK which is a simple programmitic interface to the synthesizer.

The HP27203A Speech Library uses an IMAGE/1000 data base in which to store voice information, plus some HP support utility programs for speaking and creating new words.

We have found the HP27201A speech synthesizer to be very valuable when used with the simple programmatic interfaces provided here.

Additional Documentation....:See notes in files &VTALK and &VCHEK

TEXT EDITOR

```
 Contribution Name.....: TEXED
    Title..............: Text Editor
    File Names.........:00. Rename Transfer File
                       :01. 'TEXED   Submission file
                       :02. &TEXED
                       :03. %TEXED
                       :04. #TEXED
                       :05. $TEXED  Library
                       :06. "TEXED  Documentation
                       :07. &CAPS
                       :08. %CAPS
                       :09. &TXDNF
                       :10. %TXDNF
                       :11. &JCBT
                       :12. %JCBT
                       :13. &SFILL
                       :14. %SFILL
                       :15. &SMOVE
                       :16. %SMOVE
                       :17. &SPUT
                       :18. %SPUT
                       :19. &SGET
                       :20. %SGET
                       :21. &P2680
                       :22. &QSBCM
                       :23. [TXDNF
    Operating System...:
    Language(s)........:
    Keywords...........: 1. Text
                       : 2. Editor
                       : 3. Word Processing
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: JOHNSON & HASSELL
              Company...:
              Street....:
                       :
              City......:
              State/Country.:
              Phone Number..:
              Telex.....:
 Program Abstract.......:
  TEXED is a program designed to faciltate document preparation
  by providing a convenient method of formatting unformatted text.
  TEXED performs a variety of document formatting functions.
  These include:

          - Margin alignment
          - Indentation
          - Pagination
          - Chapter, section, and subsection numbering
          - Headings and footings
          - Table of Contents
          - Index

  This program is an adaptation
  of various versions that have been around more than 15 years.  Within HP,
  the names RUNIT, RUNEM and RUNOF have been used for basically the same
  program.  This version (TEXED) is based on the core program developed by
  Jim Bridges and Bruce Stowell back in 1979.
Additional Documentation....:
```

ARF J115

TERMINAL EMULATION WITH APPLE IIC

```
Contribution Name.....:ARF
   Title..............: TERMINAL EMULATION WITH APPLE IIC
   File Names.........:00. Rename Transfer File
                      :01. 'ARF          Submission file
                      :02. &ARF  contains all of the following files
                           ARF.3.TEXT     PASCAL   SOURCE CODE  (APPLE)
                           ARF.4.TEXT     PASCAL   SOURCE CODE  (APPLE)
                           ARFASM.TEXT    ASSEMBLY SOURCE CODE  (APPLE)
                           ARFASM.2.TEXT  ASSEMBLY SOURCE CODE  (APPLE)
                           &RCVF          FORTRAN  SOURCE CODE
                           &SNDF          FORTRAN  SOURCE CODE
                           &VLMAN         FORTRAN  SOURCE LIBRARY
                           &LIBRY         FORTRAN  SOURCE LIBRARY
                           &LSBYT         ASSEMBLY SOURCE
                           TARFE          EXTENDED DOCUMENTATION FILE
   Operating System.....: RTE IV B    APPLE  UCSD PASCAL 1.2
   Language(s)..........: FORTRAN , PASCAL , ASSEMBLY
   Keywords.............: 1. Data Comm
                      : 2. Terminal
                      : 3. Emulator
                      : 4. Apple
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:DE MOOR MARK
            Company....:RUCA REKENCENTRUM
            Street.....:GROENENBORGERLAAN , 171
            City.......:ANTWERPEN
            Country....:BELGIUM
            Zip Code...:2050
            Phone Number..:03 2180320
Program Abstract.....:THIS PACKAGE CONTAINS A SET OF HP-FORTRAN
  PROCEDURES AND A SET OF APPLE II PASCAL AND ASSEMBLY PROCEDURES.
  THE APPLE MICRO IS USED AS A TERMINAL AND CAN RECEIVE OR SEND TEXT FILES
  (TYPE > 2) FROM/TO THE HP-HOST THROUGH AN ASYNCHRONOUS LINE.
Additional Documentation....: all files are grouped into file &ARF
                              and have to be separated before use.
```

DIRSIZE J116

DIRECTORY CAPACITY INFORMATION

```
Contribution Name.....:  DIRSIZE
   Title..............:  Directory capacity information
   File Names.........:00. Rename Transfer File
                      :01. DIRSIZE.SBMT  Submission file
                      :02.  DIRSIZE.FTN   Source
                           for FMGR compatib : rn to &DIRSI
                      :03. DIRSIZE.REL   relocatable
                           for FMGR compatib : rn to %DIRSI
                      :04. DIRSIZE.LOD   link command file
                           for FMGR compatib : rn to #DIRSI
   Operating System.....:  RTE-A & RTE-6/VM (>C.83)
   Language(s)..........:  FTN7X
   Keywords.............:  1. CI
                      :  2. Directory
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Seppo Pietikainen
            Company....:  HP / Finland
            Street.....:
            City.......:
            State......:
            Country....:  FINLAND

Program Abstract.....:
 Program DIRSIZE will print some information about a file-directory
 specified in the runstring (optionally subdirectories included).

 try 'ru dirsize'
```

SWEDISH-FINNISH AGP FONTS; TIME-RELATED ROUTINES

```
Contribution Name.....: FONT & JULIAN
   Title..............: SWEDISH-FINNISH AGP FONTS; TIME-RELATED ROUTINES
   File Names.........:00. Rename Transfer File
                      :01. FONT.SBMT    Submission file
                      :02. ATACHERROR.FTN
                            for FMGR compatib : rn to &ATAER
                      :03. ATTACHTOSESSION.FTN
                            for FMGR compatib : rn to &ATASE
                      :04. CLGOFERROR.FTN
                            for FMGR compatib : rn to &CLGOF
                      :05. CLGONERROR.FTN
                            for FMGR compatib : rn to &CLGON
                      :06. DAYTIME_TO_TEXT.FTN
                            for FMGR compatib : rn to &DAYTI
                      :07. DFRACT.FTN
                            for FMGR compatib : rn to &DFRAC
                      :08. FRACT.FTN
                            for FMGR compatib : rn to &FRACT
                      :09. FRJULI.FTN
                            for FMGR compatib : rn to &FRJUL
                      :10. TAKE_TIME.FTN
                            for FMGR compatib : rn to &TAKTI
                      :11. TOJUL.FTN
                            for FMGR compatib : rn to &TOJUL
                      :12. TOJULI.FTN
                            for FMGR compatib : rn to &TJULI
                      :13. WEEKDAY.FTN
                            for FMGR compatib : rn to &WEEKD
                      :14. FONT01.DAT
                            for FMGR compatib : rn to !FONT1
                      :15. FONT02.DAT
                            for FMGR compatib : rn to !FONT2
                      :16. FONT03.DAT
                            for FMGR compatib : rn to !FONT3
                      :17. FONT04.DAT
                            for FMGR compatib : rn to !FONT4
                      :18. FONT05.DAT
                            for FMGR compatib : rn to !FONT5
                      :19. FONT06.DAT
                            for FMGR compatib : rn to !FONT6
   Operating System...: RTE-A VC+
   Language(s)........: FORTRAN 77
   Keywords...........: 1. Font
                      : 2. Time
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Juhani Kyyr
              Company..: IMATRAN VOIMA OY / Central laboratory
              Street...: Viikintie 3
                      :
              City.....: SF-00560 Helsinki
              State....:
              Country..: Finland
              Zip Code.:
              Phone Number..:
              Telex....:
Program Abstract.....: AGP font files Swedish/Finnish character set
                       True Julian Day number (JD) functions
                       & some other subroutines.
                       Subroutines & functions are fully?? documented.

Additional Documentation....:
```

E J118

EDIT UTILITY WITH CI FILE MASK CAPABILITY

```
Contribution Name.....: E
   Title..............: EDIT utility with CI file mask capability
   File Names.........:00. Rename Transfer File
                      :01. E.SBMT   Submission file
                      :02. E.FTN - Source
                                 - for FMGR compatib : rn to &E
                      :03. E.HELP - Help file
                                 - for FMGR compatib : rn to !E
   Operating System...: RTE-6/VM, RTE-A with CI file system
   Language(s)........: FTN7X
   Keywords...........: 1. Editor
                      : 2. Scheduling
   External Support Req'd...: $IVLIB (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                       :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
   This is a program for automatic scheduling of EDIT using the
CI file masking feature.  Several edits can be done unsing only
one command. E accepts only type 4 files.

Additional Documentation....: See the heading of the source file
                              and the E help file.
```

CLINK J119

CONDITIONAL LINK

```
Contribution Name.....: CLINK
   Title..............: Conditional LINK
   File Names.........:00. Rename Transfer File
                      :01. CLINK.SBMT Submission file
                      :02. CLINK.FTN - Source
                                 - for FMGR compatib : rn to &CLINK
   Operating System...: RTE-6/VM, RTE-A with CI file system
   Language(s)........: FTN7X
   Keywords...........: 1. LINK
                      : 2. CI
                      : 3. UTILITY
   External Support Req'd...: $IVLIB  (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                       :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:

   CLINK is used to check if a program file needs relinking.
If it does, LINK is scheduled to relink the program.
   Use is identical to the use of LINK, except that the program
name must be the first parameter. If a directory is not specified,
the default directory PROGRAMS is checked.

Additional Documentation....:
```

DUFI J120

DUMP FILE PROGRAM

```
Contribution Name.....: DUFI
   Title..............: Dump File program
   File Names.........:00. Rename Transfer File
                      :01. DUFI.SBMT Submission file
                      :02. DUFI.FTN  - Main
                             for FMGR compatib : rn to &DUFI
                      :03. DUSUB.FTN - Subroutine
                             for FMGR compatib : rn to &DUSUB
                      :04. DUFI.LOD  - LINK commands
                             for FMGR compatib : rn to #DUFI
   Operating System...: RTE-IV, RTE-6/VM, RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. Softkeys
                      : 2. Dump
   External Support Req'd...: $IVLIB  (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                       :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
```

With DUFI you may programmatically dump files using one subroutine call (DUMPF). The FMP routines are not loaded with the program. Specially useful for dumping menues (may be created with FORM), softkey files etc. to the screen.

The routine DUMPF is part of IVLIB, which is a separate contribution. DUFI works with the CI file system.
For those who haven't upgraded yet, re-writing should be easy.

Additional Documentation....: See the routine DUMPF in IVLIB.

CPLK J121

AUTOMATIC COMPILE AND LINK PROCEDURE

```
Contribution Name.....:   CPLK
   Title..............:   Automatic Compile and Link procedure
   File Names.........:00. Rename Transfer File
                      :01. CPLK.SBMT  Submission file
                      :02. CPLK.FTN
                             for FMGR-CI compatib : rn to &CPLK
   Operating System...:   RTE-A, RTE-6
   Language(s)........:   FORTRAN
   Keywords...........: 1. Link
                      : 2. Procedures
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:   DREZE Richard
            Company....:   U.C.L. - Laboratoire du Genie Civil
            Street.....:   Place du Levant, 1
            City.......:   B-1348  LOUVAIN-LA-NEUVE
            Country....:   Belgium
            Phone Number..:   010/432112
Program Abstract.......:   CPLK is a system utility easy compile and
                           link procedure.
Additional Documentation....:   see source file
```

FERR J122

FORTRAN ERROR EXPLANATION

```
Contribution Name.....: FERR
   Title..............: FORTRAN error explanation
   File Names.........:00. Rename Transfer File
                      :01. FERR.SBMT - Submission file
                      :02. FERR.FTN - Source
                           for FMGR compatib : rn to &FERR
   Operating System...: RTE-IV, RTE-6/VM
   Language(s)........: FTN7X
   Keywords...........: 1. Error
                      : 2. Help
                      : 3. Debug
                      : 4. Message
   External Support Req'd...: $IVLIB (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                       :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
```

This is a program which is specially useful during program development. If FERR has a permanent ID segment and the routine RTERR (from IVLIB) is loaded with a program, then FERR will explain any run-time error in clear text. When a 'disastrous' error occurs the program allows you the choose whether to continue the program or to abort.

FERR is independent of the file system.

```
Additional Documentation....: Compile the program and load
                              permanently with LOADR.
```

PLIB J123

GENERAL PURPOSE LIBRARY MANAGEMENT

```
Contribution Name.....: PLIB
   Title..............: General Purpose Library management
   File Names.........:00. Rename Transfer File
                      :01. 'PLIB    Submission file
                      :02. &PLIB : source file
                      :03. %PLIB : relocatable file
                      :04. "PLIB : documentation file
   Operating System...: RTE-4 6
   Language(s)........: FTN7, FTN4
   Keywords...........: 1. Documentation
                      : 2. Data Mgmt
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Jean ZEN
            Company....: Centre de Recherches Nucleaires
            Street.....: 23, rue du Loess
            City.......: 67037 STRASBOURG CEDEX
            State/Country.: France
            Phone Number..: (88) 28 65 84
            Telex......: 890032 F  CNRS CRO
Program Abstract.......: PLIB is a general purpose library manage-
            ment program.  It allows to list library's entries along
            with their comments, to update libraries or to copy selec-
            tively a library.  PLIB can support up to 1000 entries in
            a library.
Additional Documentation....:
```

LIST CI FILES WITH MASKED FILE NAMES

```
Contribution Name.....: LIST
   Title..............: List CI files with masked file names
   File Names.........:00. Rename Transfer File
                      :01. LIST.SBMT    Submission file
                      :02. LIST.FTN - Source
                             - for FMGR compatib : rn to &LIST
                      :03. LIST.HELP  - Help file
                             - for FMGR compatib : rn to 'LIST
   Operating System...: RTE-6/VM, RTE-A with CI file system
   Language(s)........: FTN7X
   Keywords...........: 1. List
                      : 2. CI
   External Support Req'd...: $IVLIB  (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                       :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
```

Purpose :

To list multiple files with masked filenames.

Method:

The program searches the directories to find source files. Files matching the input file name(s) are listed.

Use:

To run the program, type:

LIST,<file masks>,<list LU>,<+Options>

The parameters can be in any order, but only the LAST LU number is used for list. Default LU is 6 (printer).

Options are specified by using a plus (+) sign. More than one option may be combined into one.

Valid options are:

+N - List with line numbers
+I - Inhibit headings and page numbering.

Examples:

LIST /Inge/Docgn/@	List all sources in /Inge/Docgn to LU # 6.
LIST @.MAC	List all MACRO sources in the working directory to LU # 6.
LIST net/@ 1	List all sources in the directory NET. to LU # 1.
LIST FILE.FTN +NI	List 'FILE.FTN' with line numbers and no headings.

Additional Documentation....: Help file LIST

FILE SEARCH PROGRAM WITH MASKED FILE NAMES

```
Contribution Name.....: Search
   Title..............:  FILE SEARCH PROGRAM WITH MASKED FILE NAMES
   File Names.........:00. Rename Transfer File
                      :01. SEARCH.SBMT Submission file
                      :02. SEARCH.FTN - Source
                      :      for FMGR compatib : rn to &SEARC
                      :03. SEARCH     - Help file
                      :      for FMGR compatib : rn to !SEARC
   Operating System...: RTE-6/VM, RTE-A with CI file system
   Language(s)........: FTN7X
   Keywords...........: 1. Search
                      : 2. Text
   External Support Req'd...: $IVLIB (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
            Company....: GECO A/S
            Street.....: P.o.box 330
                      :
            City.......: N-1322 HOEVIK
            State......:
            Country....: NORWAY
            Zip Code...:
            Phone Number..: 47 / 2 / 477060
            Telex......:
Program Abstract.......:
```

This is fast file search program that enables you to find all occurrences of a specified string. Files to be searched are specified using masked file names.

You can select to have lower case characters shifted before comparing, and to have spaces ignored. Also, the program can be instructed to list all matches to a file.

The program will be faster if it's sized up, preferably to 32K.

```
Additional Documentation....: See the heading of the source file
                              and the SEARCH help file.
```

UPDIR J126

MOVE UP ONE OR MORE LEVELS IN CI DIRECTORY TREE

```
Contribution Name...........: UPDIR
   Title....................:  MOVE UP ONE OR MORE LEVELS IN CI DIRECTORY TREE
   File Names..............:00. Rename Transfer File
                           :01. UPDIR.SBMT  Submission file
                           :02. UPDIR.FTN - Source
                                 for FMGR compatib : rn to &UPDIR
                           :03. UPDIR     - Help file
                                 for FMGR compatib : rn to !UPDIR
   Operating System.........: RTE-6/VM, RTE-A with CI file system
   Language(s)..............: FTN7X
   Keywords.................: 1. Directory
                            : 2. CI
   External Support Req'd...: $IVLIB  (see contribution J111)
   If Re-submission, Reason.:
Contributor's Name..........: Inge Vabekk
             Company........: GECO A/S
             Street.........: P.o.box 330
             City...........: N-1322 HOEVIK
             Country........: NORWAY
             Phone Number...: 47 / 2 / 477060
Program Abstract............:

   UPDIR is a utility program to return to the former level
in the CI directory. More than one level can be specified.
UPDIR can also be used to change to another working directory on
the same level.

Additional Documentation....: Help file UPDIR.
```

USE_OF_VMAIO.SUB J127

TREAT VAM/EMA AS DISK FILES

```
Contribution Name...........: USE_OF_VMAIO.SUB
   Title....................:   TREAT VAM/EMA AS DISK FILES
   File Names..............:00. Rename Transfer File
                           :01. USE_OF_VMAIO.SBMT    submit file
                                for FMGR compatib : rn to SUBMIW
                           :02. USE_OF_VMAIO.TXT     Documentation file
                                for FMGR compatib : rn to "VMAIO
                           :03. USE_OF_VMAIO.FTN     Source file
                                for FMGR compatib : rn to &VMAIO
                           :04. USE_OF_VMAIO.DAT     Data file
                                for FMGR compatib : rn to !VMAIO
   Operating System.........: RTE-A
   Language(s)..............: FORTRAN 77
   Keywords.................: 1. Files
                            : 2. EMA/VMA
   External Support Req'd...: CS 80 disc
   If Re-submission, Reason.:
Contributor's Name..........: Bengt Thylen  /  Kjell Klasson
             Company........: AB Bofors Plast
             Street.........: Box 302
             City...........: S-341 00  Ljungby
             Country........: Sweden
             Phone Number...: + 46 372 12520
             Telex..........: 838 5026

Program Abstract............: The utility VMAIO can be used in a way not
                             described in the RTE-A programmers reference
                             manual.  If you have large data files residing
                             on CS 80 discs, you can transfer data to or
                             from EMA/VMA and the disc.  By specifying
                             track and sector in PRAM3 and PRAM4 you can
                             address your call to the desired part of the
                             data file.
Additional Documentation....:
```

WORD ORIENTED LINE FORMATTER

```
Contribution Name.....: WOLF
   Title..............: Word Oriented Line Formatter
   File Names.........:00. Rename Transfer File
                      :01. WOLF.SBMT    Submission file
                      :02. "FILEDESCRIPTION.TXT  - description.
                          for FMGR compatib : rn to "FIDSC
                      :03. "STARTUP     Startup transfer file
                           (moves files, compiles/loads programs)
                           for FMGR compatib : rn to "STRTP
                      :04. "WOLF        Norwegian documentation
                      :05. "WOLF0       Norwegian documentation
                      :06. "WOLF1       Norwegian documentation
                      :07. "WOLF2       Norwegian documentation
                      :08. "WOLF3       Norwegian documentation
                      :09. "WOLF4       Norwegian documentation
                      :10. "WOLF5       Norwegian documentation
                      :11. >WOLF        English documentation
                      :12. >WOLF0       English documentation
                      :13. >WOLF1       English documentation
                      :14. >WOLF2       English documentation
                      :15. >WOLF3       English documentation
                      :16. >WOLF4        English documentation
                      :17. >WOLF5       English documentation

                       Help files - to be copied to directory /HELP
                       SEE "FILEDESCRIPTION.TXT
                      :18. ?WOLF        Main HELP file for WOLF
                      :19. ?AN          Command HELP file
                      :20. ?AP                    "
                      :21. ?AR                    "
                      :22. ?B                     "
                      :23. ?BL                    "
                      :24. ?C                     "
                      :25. ?CB                    "
                      :26. ?CP                    "
                      :27. ?FG                    "
                      :28. ?FI                    "
                      :29. ?FR                    "
                      :30. ?FS                    "
                      :31. ?FT                    "
                      :32. ?HP                    "
                      :33. ?I                     "
                      :34. ?JR                    "
                      :35. ?JS                    "
                      :36. ?LD                    "
                      :37. ?MR                    "
                      :38. ?NC                    "
                      :39. ?NP                    "
                      :40. ?P                     "
                      :41. ?PC                    "
                      :42. ?PE                    "
                      :43. ?PM                    "
                      :44. ?PN                    "
                      :45. ?PO                    "
                      :46. ?PP                    "
                      :47. ?PS                    "
                      :48. ?QP                    "
                      :49. ?R                     "
                      :50. ?RN                    "
                      :51. ?S                     "
                      :52. ?SF                    "
                      :53. ?SP                    "
                      :54. ?T                     "
                      :55. ?TA                    "
                      :56. ?TB                    "
                      :57. ?TC                    "
                      :58. ?TM                    "
                      :59. ?TO                    "
                      :60. ?WP                    "

                       WOLF sources - alphabetically.
```

```
                              :61. APLDR.FTN     APLDR for RTE-6/VM -
                                    to be loaded permanently
                                    for FMGR compatib : rn to &APLDR
                              :62. CFILE.COM     INCLUDE file for file DCBs
                                    for FMGR compatib : rn to ^CFILE
                              :63. CQUME.COM     INCLUDE file for
                                    printer parameters
                                    for FMGR compatib : rn to ^CQUME
                              :64. CWOLF.COM     INCLUDE file for
                                    basic WOLF data description
                                    for FMGR compatib : rn to ^CWOLF
                              :65. ERROR.FTN     ERROR description program
                                    - called by WOLF
                                    for FMGR compatib : rn to &ERROR
                              :66. SP.FTN        SPOOL setup program
                                    for RTE-6/VM - to be loaded permanently
                                    for FMGR compatib : rn to &SP
                              :67. WOLF.LOD      WOLF LINK command file
                                    for FMGR compatib : rn to #WOLF
                              :68. WOLF1.FTN     WOLF source 1 - FTN7X
                                    for FMGR compatib : rn to &WOLF1
                              :69. WOLF2.FTN     WOLF source 2 - FTN7X
                                    for FMGR compatib : rn to &WOLF2
                              :70. WOLF3.FTN     WOLF source 3 - FTN7X
                                    for FMGR compatib : rn to &WOLF3
                              :71. WOLF4.FTN     WOLF source 4 - FTN7X
                                    for FMGR compatib : rn to &WOLF4
                              :72. WOLF5.MAC     WOLF source 5 - MACRO
                                    for FMGR compatib : rn to &WOLF5
   Operating System.....: RTE-6/VM, RTE-A with CI file system
   Language(s)..........: FTN7X, MACRO
   Keywords.............: 1. TEXT
                        : 2. WORD PROCESSING
   External Support Req'd...: None
   If Re-submission, Reason.: Conversion to CI file system,
                              bugs fixed
Contributor's Name.....: Inge Vabekk
              Company..: GECO A/S
              Street...: P.o.box 330
                      :
              City.....: N-1322 HOEVIK
              State....:
              Country..: NORWAY
              Zip Code.:
              Phone Number..: 47 / 2 / 477060
              Telex....:
Program Abstract.....:
```

This is an improved version of WOLF, running under the CI file system. The speed has been almost doubled compared to the previous version, since it no more uses a disc file as scratch area and a CPU-consuming subroutine has been rewritten to MACRO.

Special processing may be done for printers like Qume, Diablo, Wenger. WOLF now uses improved underlining for HP and Wenger printers (with underline character set), and can set physical margin and variable line distance. Spooling may be set up automatically, and errors explained in clear texts (optional).

WOLF now supports national character sets. This is done by changing the default control character to '@', and processing characters {,},[,],\, like alphabetics.

WOLF can now be used with a preprocessing program, since it can receive input text via class I/O.

Otherwise the program is used as before.

Additional Documentation....:

MENU EDITING PROGRAM

```
 Contribution Name.....: FORM
    Title..............: Menu editing program
    File Names.........:00. Rename Transfer File
                       :01. FORM.SBMT  Submission file
                       :02. >FCOMMON   - Include file
                            for FMGR compatib : rn to ^FCOMM
                       :03. FORM.FTN   - Main
                            for FMGR compatib : rn to &FORM
                       :04. CKLIN.FTN  - Subroutine
                            for FMGR compatib : rn to &CKLIN
                       :05. CRLF.FTN   -      "
                            for FMGR compatib : rn to &CRLF
                       :06. CWRIT.FTN  -      "
                            for FMGR compatib : rn to &CWRIT
                       :07. DSABL.FTN  -      "
                            for FMGR compatib : rn to &DSABL
                       :08. FORTX.FTN  -      "
                            for FMGR compatib : rn to &FORTX
                       :09. HOMEC.FTN  -      "
                            for FMGR compatib : rn to &HOMEC
                       :10. INPUT.FTN  -      "
                            for FMGR compatib : rn to &INPUT
                       : 11. LPR.FTN   -      "
                            for FMGR compatib : rn to &LPR
                       : 12. NONBL.FTN -      "
                            for FMGR compatib : rn to &NONBL
                       : 13. NOYES.FTN -      "
                            for FMGR compatib : rn to &NOYES
                       : 14. OUT.FTN   -      "
                            for FMGR compatib : rn to &OUT
                       : 15. OUTC.FTN  -      "
                            for FMGR compatib : rn to &OUTC
                       : 16. RPOS.FTN  -      "
                            for FMGR compatib : rn to &RPOS
                       : 17. SOFTK.FTN -      "
                            for FMGR compatib : rn to &SOFTK
                       : 18. WPOS.FTN  -      "
                            for FMGR compatib : rn to &WPOS
                       : 19. FORM.LOD  - LINK command file
                            for FMGR compatib : rn to #FORM
    Operating System....: RTE-6/VM, possibly RTE-A
    Language(s).........: FTN7X
    Keywords............: 1. Interactive
                       : 2. Help
                       : 3. Display
    External Support Req'd...: $IVLIB (see contribution J111)
    If Re-submission, Reason.:
Contributor's Name......: Inge Vabekk
              Company...: GECO A/S
              Street....: P.o.box 330
                       :
              City......: N-1322 HOEVIK
              State.....:
              Country...: NORWAY
              Zip Code..:
              Phone Number..: 47 / 2 / 477060
              Telex.....:
Program Abstract........:
```

FORM is an editing program made for easy construction of block-mode menues or screen pictures. FORM builds a menu file that can be dumped directly to the terminal. The use of FORM is similar to EDIT/1000. As far as I know any HP terminal can be used to construct the menu, since block mode is not used.

Optional outputs: A file in printer format for documentation and a BLOCK DATA subprogram file which can be compiled directly and loaded with a program.
FORM uses the CI file system.

Additional Documentation....:

LIST J130

PRINT TEXT-FILES

```
 Contribution Name.....: LIST
    Title..............: Print text-files
    File Names.........:00. Rename Transfer File
                       :01. LISTK.SBMT Submission file
                       :02. LISTK.FTN
                            for FMGR compatib : rn to &LISTK
                       :03. PARSE.FTN
                            for FMGR compatib : rn to &PARSE
                       :04. LISTK.LOD
                            for FMGR compatib : rn to #LISTK
    Operating System...: RTE-6/VM (rev 2401)
    Language(s)........: Fortran 77
    Keywords...........: 1. List
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: KALETTA D., KRUEGER TH.
              Company...: Kernforschungszentrum Karlsruhe
              Street....: Post-box 3640
                        :
              City......: D-7500 KARLSRUHE 1
              State/Country.: West-Germany
              Phone Number..: 07247/82/4029
              Telex.....: 7826484
 Program Abstract.....: LIST is a utility program for printing
              text files.  It is a helpful tool when operating with the
              command interpreter; the CI language does not include a
              'print' command.
 Additional Documentation....:
```

DI J131

LIST DIRECTORY TREE AND CHANGE WORKING DIRECTORY

```
 Contribution Name.....: di
    Title..............:  LIST DIRECTORY TREE AND CHANGE WORKING DIRECTORY
    File Names.........:00. Rename Transfer File
                       :01. DI.SBMT  Submission file
                       :02. di.ftn
                       :03. DI.TXT
    Operating System...: rte-a
    Language(s)........: ftn77
    Keywords...........: 1. Directory
                       : 2. List
    External Support Req'd...:
    If Re-submission, Reason.:
 Contributor's Name.....: Domeisen Heinz
              Company...: Eidg. Technische Hochschule
                       : Institut fuer Mess- und Regeltechnik
              City......: CH - 8092 Zuerich
              Country...: Switzerland
              Phone Number..: 01/256 2454
 Program Abstract.....:
              DI lists the whole directory tree under the current (or
              any chosen) (global) directory and indicates the current
              working directory. The working directory can then be
              changed by positioning the cursor in the desired line.
              Before stopping, DI makes a directory list of the new
              working directory.
              Auto-linefeed must be off at the terminal.

 Additional Documentation....:
```

IMAGE-II DECLARATION GENERATOR FOR PASCAL

```
Contribution Name.....: META
   Title..............: IMAGE-II DECLARATION GENERATOR FOR PASCAL
   File Names.........:00. Rename Transfer File
                      :01. META.SBMT   Submission file
                      :02. meta.txt
                           for FMGR compatib : rn to "META
                      :03. meta.lod
                           for FMGR compatib : rn to #META
                      :04. meta.cmd
                           for FMGR compatib : rn to *META
                      :05. meta.con
                           for FMGR compatib : rn to *MCON
                      :06. meta.pas
                           for FMGR compatib : rn to &META
                      :07. metadecl.pas
                           for FMGR compatib : rn to &MDECL
                      :08. metaset.pas
                           for FMGR compatib : rn to &MSET
                      :09. metautil.pas
                           for FMGR compatib : rn to &MUTIL
                      :10. meta.run
                           for FMGR compatib : rn to METARU
                      :11. metadecl.rel
                           for FMGR compatib : rn to %MDECL
                      :12. metautil.rel
                           for FMGR compatib : rn to %MUTIL
                      :13. metaoutput.pas
                           for FMGR compatib : rn to "MOUTP
                      :14. metaset.rel
                           for FMGR compatib : rn to %MSET
                      :15. meta.rel
                           for FMGR compatib : rn to %META
   Operating System...: RTE A  + VC+  (meta uses CDS)
   Language(s)........: Pascal II and IMAGE II (A.85)
   Keywords...........: 1. Data Base
                      : 2. Image
                      : 3. PASCAL
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Eugen Haegielgian user
            Company...: Hewlett-Packard (Schweiz) AG
            Street....: Allmend 2
                      :
            City......: 8967 Widen
            State/Country.: Switzerland
            Phone Number..: 057 31 21 11
            Telex.....:
Program Abstract......: Image/1000 applications written in Pascal
            sometimes tend to have a very large declaration part.
            META uses the DBINF call and produces a standard declara-
            tion module for Pascal.  This module can and should be
            imported by all DB programs.
Additional Documentation....: META.TXT (rn to "META)
```

FUNCTION KEY DEFINITIONS

```
Contribution Name.....: KEYS
   Title..............: Function key definitions
   File Names.........:00. Rename Transfer File
                      :01. KEYS.SBMT   Submission file
                            Rename transfer file for FMGR
                           for FMGR compatib : rn to *RNFMG
                            Rename transfer file for RTE-A
                           for FMGR compatib : rn to *RNRTA
                      : 02. KEYS.FTN   Program source file
                           for FMGR compatib : rn to &KEYS
                      : 03. KEYS.REL   Relocatable file
                           for FMGR compatib : rn to %KEYS
                      : 04. KEY2.FTN   Subroutine source file
                           for FMGR compatib : rn to &KEY2
                      : 05. KEY2.REL   Relocatable file
                           for FMGR compatib : rn to %KEY2
                      : 06. KEYS.LOD   LINK command file for RTE-A
                           for FMGR compatib : rn to #KEYS
                      : 07. KEYS.KEYS  Data file: example key def.
                           for FMGR compatib : rn to "KEYS
                      : 08. SAMP.FTN   Program source file
                           for FMGR compatib : rn to &SAMP
                      : 09. SAMP.REL   Relocatable file
                           for FMGR compatib : rn to %SAMP
                      : 10. SAMP.LOD   Link command file for RTE-A
                           for FMGR compatib : rn to #SAMP
                      : 11. SAMP.KEYS  Data file: example for SAMP
                           for FMGR compatib : rn to "SAMP
   Operating System...: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. Softkeys
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....: Ari Markkula
            Company....: Helsinki Univ. of Technology, Inst of Geodesy
            Street.....: Otakaari 1 F
            City.......: 02150 Espoo 15
            Country....: Finland
            Phone Number..: (358)-0-460144
            Telex......:

Program Abstract.....:
```

This program defines the user definable function keys for HP terminals. All the definitions will be read from a file that you easily can write with EDIT/1000. There is no need to use the display function mode for control characters. If the character is an '^' (an Uparrow, ASCII 94), the following character will be interpreted as a control character. There is also subroutines for defining only the text label displayed on the screen and for setting and reading the actual string of function keys. These subroutines are easy to use when making a program with many selections.

The included data file sets some commands from the EDIT/1000 to function keys.

Program and subroutines are documented well. Read the data file KEYS.KEYS for more information about the function key definitions and the program source KEYS.FTN for run parameters and file name defaults.

Runstring:

```
CI>  KEYS KEYS.KEYS 1
```

(cont)

KEYS J133

FUNCTION KEY DEFINITIONS (cont)

KEYS.KEYS is the data file, from which the definitions are taken and 1 defines, that you will set the group number 1 in function. Using the default file and group definitions it is possible just run the program without any parameters:

```
CI>  KEYS
```

The second program example SAMP shows, how these subroutines can be used for multilevel selections in programs.

Remark: Subroutines use the directory structure of RTE-A. Also the second rename transfer file tries to rename files to those with type extensions.

Additional Documentation....:

NL J134

FILE LISTING WITH LINENUMBERS IN CI-SYSTEM

```
Contribution Name...........:  NL
   Title....................: File listing with linenumbers in CI-system
   File Names..............:00. Rename Transfer File
                           :01. NL.SBMT  Submission file
                           :02. NL.FTN    Source
                                for FMGR compatib : rn to &NL
                           :03. NL.REL    Relocatable
                                for FMGR compatib : rn to %NL
                           :04. NL.LOD    Link command file
                                for FMGR compatib : rn to #NL
   Operating System.....: RTE-A & RTE-6/VM (>C.83)
   Language(s)..........: FTN7X
   Keywords.............: 1. List
   External Support Req'd...:
   if Re-submission, Reason.:
Contributor's Name..........: Seppo Pietikainen
              Company.......: HP / Finland
              Street........:
                           :
              City..........:
              State.........:
              Country.......: FINLAND
              Zip Code......:
              Phone Number..:
              Telex Number..:
Program Abstract............:
```

NL works pretty much the same as FMGR LI-command, except it knows hierarchical files also. Default output device = LU6.

Try ru NL.

Additional Documentation....:

MED J135

EDIT WITH FILE MASK CAPABILITY

```
Contribution Name.....: MED
   Title..............: EDIT WITH FILE MASK CAPABILITY
   File Names.........:00. Rename Transfer File
                      :01. MED.SBMT  Submission file
                      :02. MED.FTN Source
                           for FMGR compatib : rn to &MED
                      :03. MED.REL Relocatable
                           for FMGR compatib : rn to %MED
                      :04. MED.LOD Link command file
                           for FMGR compatib : rn to #MED
   Operating System....:   RTE-A, RTE-6/VM (>Rev C.83)
   Language(s).........:   FTN7X
   Keywords............:  1. editor
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Seppo Pietikainen
            Company....: HP / Finland
            Country....: FINLAND
Program Abstract.......:

 MED is just like EDIT, except it will accept a file mask instead of
 filename in the runstring.


Additional Documentation....:NONE
```

DVT J136

GET DVT & IFT INFO

```
Contribution Name.....:  DVT
   Title..............:  Get DVT & IFT Info
   File Names.........:00. Rename Transfer File
                      :01. DVT.SBMT Submission file
                      :02. DVT.FTN    Main source
                           for FMGR compatib : rn to &DVT
                      :03. DVT.REL    Main Reloc.
                           for FMGR compatib : rn to %DVT
                      :04. GET_DVT.MAC  Data getter source
                           for FMGR compatib : rn to &GTDVT
                      :05. GET_DVT.REL    -   "   -   reloc.
                           for FMGR compatib : rn to %GTDVT
                      :06. DVT.LOD
                           for FMGR compatib : rn to #DVT
   Operating System....:  RTE-A
   Language(s).........:  FTN7X, MACRO
   Keywords............: 1. System Tables
                      : 2. EQT
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Seppo Pietikainen
            Company....:  HP / Finland
            Country....: FINLAND

Program Abstract.......:

 DVT will get RTE-A io-tables DVT & IFT of a LU specified in the runstring
 to a file or device specified in the runstring.

 try ru DVT.

Additional Documentation....: NONE
```

RTE-A SESSION UTILITIES

```
Contribution Name.....:  SESSION
   Title..............: RTE-A session utilities
   File Names.........:00. Rename Transfer File
                      :01. SESUP.SBMT  Submission file
                      :02. SESUP.FTN     Session start up pgm source
                           for FMGR compatib : rn to &SESUP
                      :03. SESUP.REL     Corresponding relocatable
                           for FMGR compatib : rn to %SESUP
                      :04. MAIL.FTN      Mail utility source
                           for FMGR compatib : rn to &MAIL
                      :05. MAIL.REL          -  "  -   reloc.
                           for FMGR compatib : rn to %MAIL
                      :06. TELL.FTN      Message utility source
                           for FMGR compatib : rn to &TELL
                      :07. SU.FTN      ? source
                           for FMGR compatib : rn to &SU
                      :08. TELL.REL          -  "  -   reloc.
                           for FMGR compatib : rn to %TELL
                      :09. SULIB.FTN     utility library source
                           for FMGR compatib : rn to &SULIB
                      :10. SULIB.LIB         -  "  -   reloc.
                           for FMGR compatib : rn to %SULIB
                      :11. IOABORT.MAC   I/O-abort source
                           for FMGR compatib : rn to &IOABO
                      :12. IOABORT.REL    - " -    reloc.
                           for FMGR compatib : rn to %IOABO
                      :13. SESUP.LOD     SESUP link cmd-file
                           for FMGR compatib : rn to #SESUP
                      :14. MAIL.LOD      MAIL  link cmd-file
                           for FMGR compatib : rn to #MAIL
                      :15. TELL.LOD      TELL  link cmd-file
                           for FMGR compatib : rn to #TELL
                      :16. SU.LOD        SU    link cmd-file
                           for FMGR compatib : rn to #SU
                      :17. SULIB.MERG    SULIB.LIB  cmd-file
                           for FMGR compatib : rn to *SULIB
                      :18. SETUP.CMD     cmd file to link all
                           for FMGR compatib : rn to *SETUP
                      :19. MAIL.HELP     MAIL help-file
                           for FMGR compatib : rn to "MAIL
                      :20. TELL.HELP     TELL help-file
                           for FMGR compatib : rn to "TELL
                      :21. SU.HELP       SU   help-file
                           for FMGR compatib : rn to "SUHLP
                      :22. SESSION.READ  Info file
                           for FMGR compatib : rn to "SESSI
                      :23. DISTRIBUTION.LIST Sample distr. list
                           for FMGR compatib : rn to 'DISTR
                      :24. MESSAGES.TXT  Sample start up message
                           for FMGR compatib : rn to 'MESSG
   Operating System...:  RTE-A/VC+
   Language(s)........: FTN7X, MACRO
   Keywords...........: 1. Mail
                      : 2. Message
                      : 3. Session
   External Support Req'd...:
   if Re-submission, Reason.:
Contributor's Name....: Seppo Pietikainen
             Company..: HP / Finland
             Street...:
                     :
             City.....:
             State....:
             Country..: FINLAND
             Zip Code.:
             Phone Number..:
             Telex Number..:
```

(cont)

SESSION J137

RTE-A SESSION UTILITIES (cont)

Program Abstract.....:

SESSION is a set of programs (SESUP, MAIL, TELL, SU) for sending mail & messages in RTE-A/VC+ environment.

SESUP is the startup program, which outputs file /SYSTEM/MESSAGES.TXT to users terminal, when he/she logs on, and tells the user if he/she has any mail in directory /MAIL, and finally schedules CI to the user.

MAIL is the interface by which the user can send mail to other users or receive mail from other users.

TELL is a program, through which a user can send messages to other active users in the system. (It aborts the current I/O-request!)

SU is a program, by which a user can become temporarily a super-user if he/she knows MANAGER's password.

Additional Documentation....: file: SESSION.READ

C J138

COMPILE UTILITY

Contribution Name.....: C
Title.....: Compile utility
File Names.....:00. Rename Transfer File
:01. C.SBMT Submission file
:02. C.FTN - Source
- for FMGR compatib : rn to &C
:03. COMPL.HELP - Help file
- for FMGR compatib : rn to !COMPL
Operating System.....: RTE-6/VM, RTE-A with CI file system
Language(s).....: FTN7X
Keywords.....: 1. Compiler
: 2. Pre-processor
External Support Req'd...: $IVLIB (see contribution J111)
If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
Company.....: GECO A/S
Street.....: P.o.box 330
:
City.....: N-1322 HOEVIK
State.....:
Country.....: NORWAY
Zip Code.....:
Phone Number..: 47 / 2 / 477060
Telex.....:
Program Abstract.....:

This is an improved version COMPL, running under the CI file system. The program uses the file masking feature to search for files to be compiled. The appropriate compiler is called according to either the filename extension (FTN,MAC, PAS etc) or the file's control statement if the filename starts with an '&'.

Several file masks can be specified in one command. Spooling is started if the program SP (Separate contribution) is available and spooling is legal for the output device.

Compile options can be specified in the run-string.

Additional Documentation....: See the heading of the source file and the COMPL help file.