CSL/1000

LIBRARY OF
USER-CONTRIBUTED SOFTWARE
FOR HP1000 SYSTEMS

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RELEASE TAPE 2830

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Published by
INTEREX
THE INTERNATIONAL ASSOCIATION OF HEWLETT-PACKARD COMPUTER USERS

To obtain this index or additional copies of any previously published indexes, catalogs, or magnetic tapes, please contact

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GENERAL INTRODUCTION

CSL/1000 is the contribution 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 contributions to the CSL/1000 library are general usage programs, while 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 involves 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.

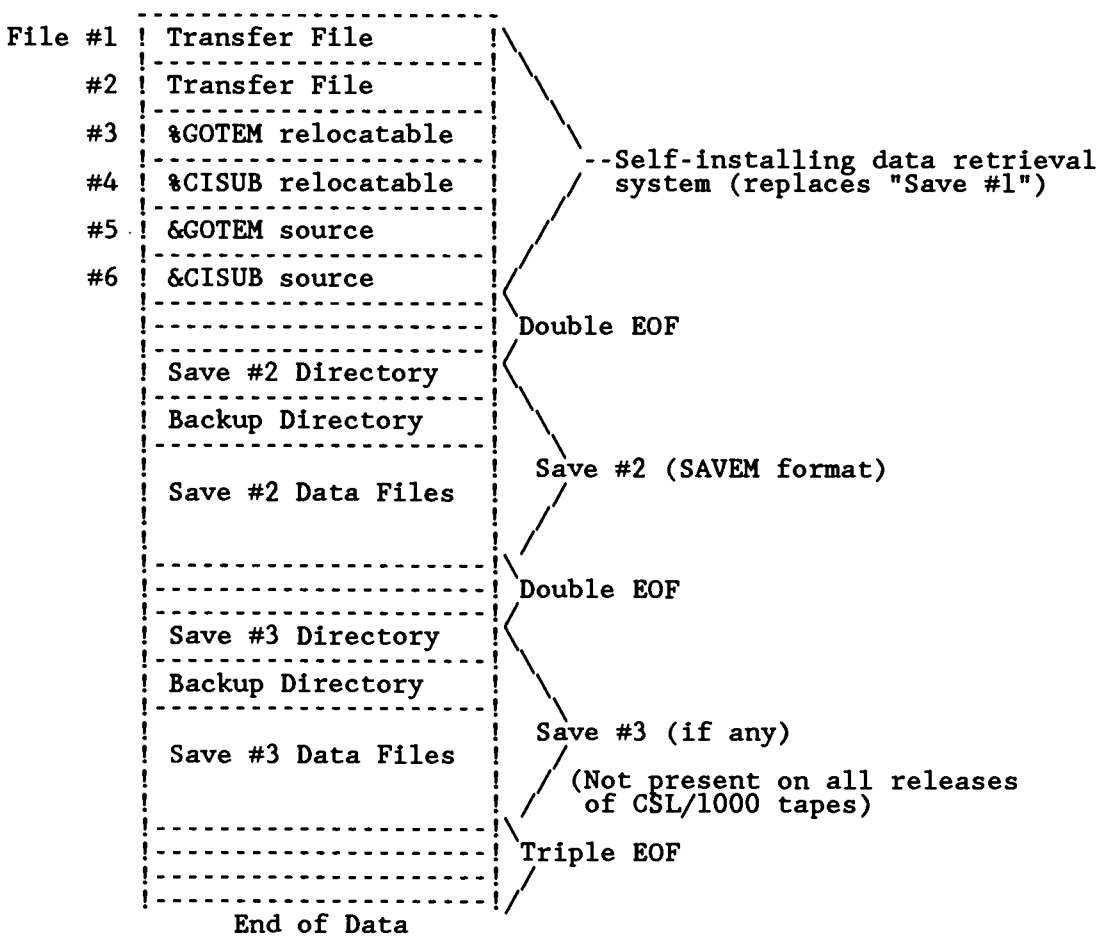
These responsibilities for the CSL/1000 library lie with Interex.

CSL/1000 TAPE FORMAT

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 6 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 or GETEM. All data files are in FMGR format with 6-character names (see section on File-Naming Conventions).

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

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).

FILE-NAMING CONVENTIONS

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 "CONTRIBUTION 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 ('M' for release 2830).
'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 M 38th contribution with 6 files is named:
M03800 ,M03801, M03802, M03803, M03804, M03805
(where M03800 is the 'Rename Transfer File' and M03801 is the 'Submission File')

DATA-RETRIEVAL INSTRUCTIONS

Standard 1/2" Computer Tape (SAVEM format)

IMPORTANT: Under RTE-6 or RTE-A, make sure that LINK is RP'ed!

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 files #3 and #4 (%GOTEM,%CISUB) from the mag tape and store it on the scratch disk. Then GOTEM will be loaded (using LINK or LOADR) and scheduled for execution. [%CISUB is relocated only on systems having CI installed; %CISUB is a set of subroutines that allow GOTEM access to the CI system for restoring files. On non-CI systems, %CISUB will not be used. Furthermore, if all load attempts fail, file #5 (&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 data files.

If you do not have any FMGR cartridges on your system, you can load GOTEM by simply restoring files #3 and #4 (%GOTEM,%CISUB) and then linking them, as follows (assume mag tape lu is 8):

```
CI> CN,8,FF
CI> CN,8,FF
CI> CO,8,%GOTEM
CI> CO,8,%CISUB
CI> LINK,%GOTEM,%CISUB,GOTEM::PROGRAMS
```

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): 1988:202:18: 0
 Header: CSL/1000 REV 2830

 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)
   EX    - terminate and rewind tape
 Command? DL
 Enter lu for directory listing (default your terminal): 1

 '-' may be used as wildcard character in file name.
 Enter namr of desired file: M019--
```

```
Save#  2
Save date (Y:D:H:M): 1988:202:18: 0
Header: CSL/1000 REV 2830
 Name    Scode    Cart    Type    Size
M01900:      0:    -61:      4:      2
M01901:      0:    -61:      4:     18
M01902:      0:    -61:      4:     82
   3 files found matching M019--

Command? RF            (Restore files)

Enter destination FMGR cartridge reference or
  CI global directory (2 chars max) 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: M019--
...(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
M01900:      0:    -61:      4:      1
M01901:      0:    -61:      4:      9
M01902:      0:    -61:      4:     41
   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    (FMGR only)
Enter security code: AW

Ready to proceed with file restore? (Y/N) Y

           Name    Scode    Cart    Type    Size
Searching
Creating  M01900:     AW:     SC:      4:      1
Writing   M01900:     AW:     SC:      4:      1
Searching
Creating  M01901:     AW:     SC:      4:      9
Writing   M01901:     AW:     SC:      4:      9
Searching
Creating  M01902:     AW:     SC:      4:     41
Writing   M01902:     AW:     SC:      4:     41
Normal end
   3 files restored

Command? EX                (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>  TF                                  (run TF)
TF:  CO 24{M019--,M057--} ::RT           (copy to cart/dir RT)
TF:  EX                                  (terminate)
```

Contributions M019 and M057 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 'ANNN' is the 'contribution number' and <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 'ANNN' is the 'contribution number', <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 contribution 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').

Contribution 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.

HOW TO SUBMIT A CONTRIBUTION

The process of submitting a contribution 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

CONTRIBUTION 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(s).....:
   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..:
Contribution 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, dot, or commercial 'at').

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 Interex)
    :01. XYZ.SBMT - Submission file (or 'XYZ)
                    Prepared by user, using blank 'SUBMT file.
    :02. XYZ.FTN  - XYZ source code  [or &FTN]
                    Comments if desired
    :03. XYZ.REL  - XYZ relocatable  [or %XYZ]
    :04. XYZ.LOD  - XYZ LINK command file [or #XYZ]
    :05. XYZ.DOC  - Manual for XYZ   [or "XYZ]
```

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 contribution 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 contribution available to Interex, The International Association of Hewlett-Packard Computer Users. I hereby agree that Interex may reproduce, publish, and use this contribution, 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
680 Almanor Avenue
Sunnyvale, California 94086-3513
U.S.A.
(408) 738-4848

WHERE TO GET THE 'SUBMT FILE

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.

INTEREX CONTRIBUTED-SOFTWARE EVALUATION FORM

USER Site Information:

HP1000 Series (M, E, F, A, XL)_____

RTE Revision_____

OpSys (RTE-6, RTE-A, etc)_____

CONTRIBUTION Information:

Library RELEASE (2625, 2730, 2830, etc) _____

Contribution No. (M034, etc) _____ Contribution Name _____

Evaluation: ____ Works as Documented

____ Works with Exception (please explain below)

____ Abandoned due to: _____ incomplete documentation

_____ erroneous documentation

_____ operation doesn't match example

_____ program will not load

_____ program will not execute

_____ source code will not compile

Explanation: _____

_____

_____

_____

_____

Your Name _____

Company _____

Street _____

City/State/Zip _____

Telephone _____

SEND TO: CSL/1000 Manager
INTEREX
680 Almanor Ave.
Sunnyvale, CA 94086-3513 USA

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
680 Almanor Avenue
Sunnyvale, California 94086-3513
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(408) 738-4848

List of Current Keywords

9825
ABSOLUTE
ACCOUNTING
ACCOUNTS
AI
ALGEBRA
ALGOL
ANALOG/DIGITAL
ANALYZER
APPLE
ARCHIVE
ARRAY
ASCII
ASSEMBLER
ASTRONOMY
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
CHEMISTRY
CI
CLASS_NUMBER
CODE
COMMAND_FILES
COMMON
COMPARE
COMPILER
COMPLEX
CONFIGURE
CONVERSION
COPY
CROSS-REFERENCE
CS80
DATA_ACQUISITION
DATA_ANALYSIS
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
ENCRYPTION
ENGINEERING
ENTRY_POINTS
EQT
ERROR
EXPERT_SYSTEMS
EXTENTS
FAIRCHILD
FIGURES
FILES
FILE_TRANSFER
FILTER
FINANCE
FLOATING_POINT
FLOWCHART
FMGR
FONT
FORMATTING
FORMS
FORTRAN
FOURIER
GAMES
GENERATION
GEODESY
GEOMETRY
GLOBALS
GRAPHICS
HELP
HPIB
I/O
IBM
ID_SEGMENTS
IMAGE
IMAGE_PROCESSING
INITIALIZE
INPUT
INTEGER
INTEL
INTERACTIVE
INTERFACE
INTERPRETER
INTERRUPT
INVERSE
LABEL
LANGUAGE
LAS
LASERJET
LIBRARY
LINEAR_EQNS
LINK
LIST
LOADER
LOGON/LOGOFF
MACRO
MAGNETIC_TAPE
MAIL
MAINTENANCE
MANAGEMENT
MAP
MATHEMATICS
MATRIX
MEASUREMENT
MEMORY
MENU
MERGE
MESSAGE
MICROCODE
MISCELLANEOUS
MODEM
MODIFY
MONITOR
MOTOROLA
MOVE
MULTI-PROGRAM
MULTI-TERMINAL
MULTIPLEXOR
NETWORK
OFFICE
PACK
PAPER_TAPE
PARSE
PARTITION
PASCAL
PATH
PAYROLL
PC
PERFORMANCE
PHYSICS
PLOTTING
PLUS/1000
POLYNOMIAL
PRE-PROCESSOR
PRECISION
PRINTER
PRIVILEGED
PROCEDURES
PROM
PURGE
QDM
RANDOM
REGRESSION
RELOCATABLE
REPORTS
RESOURCE_NUMBER
RJE
SAVE/RESTORE
SCANNER
SCHEDULING
SCRATCH
SEARCH
SECURITY
SEGMENTATION
SESSION
SHELL
SIMULATOR
SNAP
SOFTKEYS
SORT
SPEECH
SPELLING
SPL
SPOOLING
SPREAD_SHEET
STACK
STATISTICS
STATUS
STORAGE
STRINGS
SYSTEM
SYSTEM_TABLES
TABLET
TEKTRONIX
TERMINAL
TEST
TEXT
TIME
TOOLS
TOUCH
TRANSFORM
TRANSLATOR
TRANSPORTABLE
TRIGONOMETRY
UNIX
UPDATE
VAX
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WINDOWS
WORD
WORD_PROCESSING
X.25

SECTION II

CSL/1000 Release 2830

CONTRIBUTION INDEX

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

INDEX BY CONTRIBUTION NAME

CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
ACDA	RTE-A CRASH DUMP ANALYZER	*	2830	M209	ANALYZER, DUMP, SYSTEM
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E4	E4 EDITOR	*	2830	M220	EDITOR, GRAPHICS
ECALC	EXPRESSION CALCULATOR	*	2830	M028	CALCULATOR
EMACOPY	COPY INTEGER*2 DATA IN/OUT/WITHIN EMA FAST	*	2830	M031	EMA/VMA, COPY
EMACS	EMACS EDITOR	*	2830	M221	EDITOR
ERR	AN ERROR REPORTING PROGRAM FOR MOST HP ERRORS	*	2830	M106	ERROR, REPORTS, HELP
ERROR	EXPLAIN FMP ERROR	*	2830	M036	ERROR, FILES
FA88,FA89	THE FLOPPY ALMANAC	*	2830	M047	DATE, ASTRONOMY
FFP24	E-SERIES DOUBLE-INTEGER AND DOUBLE-PRECISION MICROCODE	*	2830	M015	MICROCODE, ENTRY POINTS
FIND	FIND ASCII STRING ON DISC	*	2830	M012	DISC, ASCII, SEARCH
FINDPAT	FAST PATTERN FINDER VERSION 5.1	*	2830	M021	TOOLS, SEARCH, FILTER

INDEX BY CONTRIBUTION NAME

CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
FLAX	FLAX OF FLANL PACKAGE	*	2830	M223	FILES
FMPERROR	SHOW FMP ERROR CODES	*	2830	M224	FMGR, ERROR, HELP
FMPPROFILE	D.RTR ANALYZER	*	2830	M225	DISC, ANALYZER
FONTEDIT	LOAD AND EDIT LASERJET+ SOFT FONTS	*	2830	M046	WORD PROCESSING, LASERJET, FONT
FORM	FORMS GENERATOR	*	2830	M226	FORMS, GENERATION
FS	DISC BIT MAP DISPLAY	*	2830	M039	MAP, STORAGE, DISC, CI
FX	FILE FILTERING	*	2830	M227	FILES, FILTER
F DUMP	MULTI-PURPOSE FILE/TAPE DUMPING UTILITY	*	2830	M110	DUMP, FILES
GENRECORDS	READ GEN RECORDS FROM DRIVER RELOCATABLE	*	2830	M005	DRIVER, RELOCATABLE, GENERATION
GET	INTERACTIVE CI PROMPT	*	2830	M228	CI, COMMAND FILES
GJOB	VARIOUS PROGRAMS FROM DSD	*	2830	M200	SYSTEM, HELP
GJOBLIB/ANTLB	GJOB LIBRARY (PART 8 OF 8)	*	2830	M208	LIBRARY
GJOBLIB/CCSC	GJOB LIBRARY (PART 7 OF 8)	*	2830	M207	LIBRARY
GJOBLIB/CURSR	GJOB LIBRARY (PART 1 OF 8)	*	2830	M201	LIBRARY
GJOBLIB/DB	GJOB LIBRARY (PART 6 OF 8)	*	2830	M206	LIBRARY
GJOBLIB/SESS	GJOB LIBRARY (PART 5 OF 8)	*	2830	M205	LIBRARY
GJOBLIB/TMLB	GJOB LIBRARY (PART 4 OF 8)	*	2830	M204	LIBRARY
GJOBLIB/UTLB	GJOB LIBRARY (PART 2 OF 8)	*	2830	M202	LIBRARY
GJOBLIB/UTLB	GJOB LIBRARY (PART 3 OF 8)	*	2830	M203	LIBRARY
GLOBALSPACE	DISC SPACE REPORT	*	2830	M229	DISC, MANAGEMENT, DIRECTORY
GREP/1000	UNIX/EGREP FOR THE HP-1000	*	2830	M016	UNIX, SEARCH, FILES
GSORT	FAST MULTIPLE KEY SORT FOR FILES	*	2830	M230	SORT
HACKER	RTE-6 SYSTEM INFORMATION PROGRAM	*	2830	M061	SYSTEM, DECODE, SECURITY
HACKER	RTE-A SYSTEM INFORMATION PROGRAM	*	2830	M062	SYSTEM, SECURITY, DECODE
HAKRI	HP 1000 MEF MEMORY ERASING PROGRAM	*	2830	M090	MANAGEMENT, PURGE, SCRATCH, SECURITY
HEAPSORT	HEAPSORT AND INSERTIONSORT VERSION 5.2	*	2830	M027	SORT
HOERL	HOERL EQUATION REGRESSION	*	2830	M049	REGRESSION, STATISTICS
HPCA	HP RPN CALCULATOR	*	2830	M231	CALCULATOR
HPCA2	HP RPN CALCULATOR	*	2830	M232	CALCULATOR
HPCA3	HP RPN CALCULATOR	*	2830	M233	CALCULATOR, TOUCH
INVOKE	INVOKE A PROGRAM WITH FILE MASK	*	2830	M063	SCHEDULING, BATCH, FILTER
IOP	FANCY CI IO COMMAND	*	2830	M113	I/O, SYSTEM
KALAHA	AN OLD AFRICAN GAME	*	2830	M017	GAMES
KEEP	RP AND MAKE PROGRAM PERMANENT	*	2830	M234	CI, ID SEGMENTS, SYSTEM
KERMIT	KERMIT 1.99C - MACHINE-TO-MACHINE FILE TRANSFER	*	2830	M077	FILE TRANSFER, DATA COMM, NETWORK
KEYUP	UPDATE IMAGE KEYS	*	2830	M235	IMAGE, EDITOR
KILLEXT	KILLS EXTENTS (USE W/ TRANSFER FILES)	*	2830	M008	FILES, EXTENTS
LINREG	LINEAR REGRESSION	*	2830	M050	REGRESSION, STATISTICS
LOOKY	SYSTEM MAINTENANCE UTILITY	*	2830	M236	MAINTENANCE, SYSTEM TABLES, ANALYZER
MAIL	A MAILBOX - ELECTRONIC MAIL FACILITY	*	2830	M105	MAIL, MAIL, NETWORK
MAKETAPES	MANUFACTURE REEL-TO-REEL TAPES IN VOLUME	*	2830	M032	COPY, MAGNETIC TAPE
MAKE KEYS	MAKE/SET TERMINAL SOFTKEYS	*	2830	M004	'SOFTKEYS
MANUAL	CSL/1000 UTILITIES REFERENCE MANUAL	*	2830	M013	DOCUMENTATION
MASS	MULTI RUN-PROGRAM WITH FILE-MASK	*	2830	M073	FILTER, CI
MENU	MENU BUILDER	*	2830	M074	MENU, SHELL
MENU	STARTUP PROGRAM FOR MEMORY BASED SYSTEMS	*	2830	M092	SYSTEM, BOOT-UP
MICROEMACS	MICROEMACS EDITOR	*	2830	M222	EDITOR
MLVS	MULTILEVEL SORT OF ASCII-FILE	*	2830	M088	SORT, SHELL
MORE A TO	PAGINATED LIST COMMAND	*	2830	M010	FILES, FORMATTING
MPACK	MASTER DISC PACKER	*	2830	M237	CI, DISC, MAINTENANCE, PACK
MSGCOM	MSGCOM (MISSING FILES FROM LIBC FROM CSL/1000 REV 2730)	*	2830	M014	LIBRARY
MUXD	DISPLAY/SET 12040D MULTIPLEXOR PORT STATUS	*	2830	M069	MULTIPLEXOR, STATUS

INDEX BY CONTRIBUTION NAME

CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
M DUPE	MAGNETIC TAPE DUPLICATOR	*	2830	M107	MAGNETIC TAPE, COPY
ND	COMMAND STACK FOR DIRECTORY NAMES	*	2830	M238	DIRECTORY, SHELL, INTERACTIVE
NULLJOB	DISPLAY TOTAL PERCENTAGE OF CPU UTILIZATION	*	2830	M034	REPORTS, PERFORMANCE, SYSTEM
PASS CHECK6	RTE-6 PASSWORD AGING	*	2830	M040	SYSTEM, SECURITY, SESSION
PATCHBITMAP	CHANGE SENSE OF BITS IN DISC LU BITMAPS	*	2830	M022	SYSTEM, SYSTEM TABLES
PAUSE	INTERACTIVE PAUSE	*	2830	M035	CI, COMMAND FILES
PAWS	CI PAUSE COMMAND	*	2830	M239	COMMAND FILES, CI
PEDIT	PROGRAMMATIC LINE EDITOR	*	2830	M011	INTERACTIVE, EDITOR
PHONE	LEAVE A PHONE MESSAGE	*	2830	M240	MAIL, MESSAGE
PLIST	PHONE LIST DATA BASE	*	2830	M241	MAIL, IMAGE, DATA BASE
PLOT	GENERAL PLOT PROGRAM (PART 1 OF 3)	*	2830	M042	PLOTTING, GRAPHICS
PLOT	GENERAL PLOT PROGRAM (PART 2 OF 3)	*	2830	M043	PLOTTING, GRAPHICS
PLOT	GENERAL PLOT PROGRAM (PART 3 OF 3)	*	2830	M044	PLOTTING, GRAPHICS
POLREG	POLYNOMIAL REGRESSION	*	2830	M051	REGRESSION, STATISTICS
PRBF	EXACT PROBABILITY OF F/T DISTRIBUTION(S)	*	2830	M052	STATISTICS
PREX	SET EXEC CALL MESSAGE LENGTH	*	2830	M242	COMPILER, PRE-PROCESSOR
PRINTS	CONTENTS OF A TERMINAL SCREEN TO LINE PRINTER	*	2830	M103	PRINTER, TERMINAL
PRMON	DISPLAY STATUS OF PROGRAM OVER SOME TIME	*	2830	M100	MONITOR, STATUS
PROBE	NETWORK NODE ANALYZER	*	2830	M243	DS, NETWORK, ANALYZER
PROLOG	PROLOG INTERPRETER	*	2830	M244	INTERPRETER, LANGUAGE
PRT	A FILE PRINTING FACILITY WITH ESCAPE CODES	*	2830	M114	PRINTER, FORMATTING
PUDIR	DIRECTORY PURGE	*	2830	M245	PURGE, MANAGEMENT
QRP	QUICK RP	*	2830	M246	CI, SYSTEM, MAINTENANCE
RELCHANGE	COMPARE RELOCATABLES	*	2830	M247	COMPARE, RELOCATABLE, FILES
RK	RUNGE-KUTTA DIFFERENTIAL EQ'N SOLVERS	*	2830	M093	ENGINEERING, FLOATING POINT, MATHEMATICS, PHYSICS
RKN	RUNGE-KUTTA-NYSTROM DIFFERENTIAL EQ'N SOLVERS	*	2830	M094	ENGINEERING, MATHEMATICS
RMULT	MULTIPLE REGRESSION	*	2830	M053	REGRESSION, STATISTICS
ROOT	GIVE SUPER-USER CAPABILITY	*	2830	M006	SYSTEM, SECURITY
RPALL	RP, THEN OF, ALL FILES IN MASK	*	2830	M248	SYSTEM, MAINTENANCE, FILTER
RPCHK	CHECK FOR LEGAL PROGRAM FILES	*	2830	M249	SYSTEM, MAINTENANCE
RPOK	RPOK ROUTINE FOR CONTRIBUTION H022	*	2830	M030	ASSEMBLER, SEARCH, SORT
RPRINT	REMOTE DS/1000 PRINT PROGRAMS	*	2830	M055	DS, PRINTER
RTEQ6	ID SEGMENT LISTER	*	2830	M250	ID SEGMENTS, SYSTEM TABLES, MAINTENANCE
SEARCH	SEARCH FOR STRING ACROSS DIRECTORY	*	2830	M045	SEARCH, DIRECTORY, STRINGS
SEARCH	SEARCH FILES FOR GIVEN STRING	*	2830	M096	FILTER, SEARCH, STRINGS
SET TIME	AUTOMATICALLY SET SYSTEM TIME FROM HAYES CLOCK	*	2830	M116	TIME, SYSTEM
SFKEY	KEYSET LOAD UTILITY	*	2830	M089	SOFTKEYS, TERMINAL
SHOWP	DYNAMIC SYSTEM STATUS DISPLAY	*	2830	M001	DISPLAY, MONITOR, SYSTEM, DIAGNOSTIC
SKED	TIME-SCHEDULED PROGRAM SCHEDULER	*	2830	M056	SCHEDULING, SYSTEM
SKETCH	SKETCH REV. 5.1 (PART 1 OF 9)	*	2830	M078	GRAPHICS, PLOTTING, FIGURES
SKETCH	SKETCH REV. 5.1 (PART 2 OF 9)	*	2830	M079	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 3 OF 9)	*	2830	M080	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 4 OF 9)	*	2830	M081	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 5 OF 9)	*	2830	M082	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 6 OF 9)	*	2830	M083	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 7 OF 9)	*	2830	M084	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 8 OF 9)	*	2830	M085	GRAPHICS, FIGURES, PLOTTING
SKETCH	SKETCH REV. 5.1 (PART 9 OF 9)	*	2830	M086	GRAPHICS, FIGURES, PLOTTING
SMPLY	ENHANCEMENTS TO RTE-6 SPOOLING	*	2830	M041	SPOOLING
SORTR	GENERAL PURPOSE FILE SORTING UTILITY	*	2830	M054	SORT
SPOOL	SETUP SPOOL LOG FILE ON RTE-A	*	2830	M101	SPOOLING
TASK	TIME ACCOUNTING TOOL	*	2830	M251	ACCOUNTING, TIME, IMAGE

INDEX BY CONTRIBUTION NAME

CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
TE	SEND MSGS TO USER (LIKE 3000 TELL)	*	2830	M007	MESSAGE
TERM INIT	A TERMINAL SOFT KEY INITIALIZATION PROGRAM	*	2830	M111	SOFTKEYS, TERMINAL
TERM TYPE	OBTAIN TERMINAL TYPE	*	2830	M252	TERMINAL, SYSTEM
TGL	TERMINAL GRAPHICS LIBRARY	*	2830	M064	TERMINAL, GRAPHICS, LIBRARY
TIME	TIME UTILITY AS IN (HOPEFULLY) UNIX	*	2830	M018	TIME, DATE, UNIX
TIMER	TIME PROCESSES	*	2830	M033	TIME, REPORTS
TN	REMOTE LOGON MONITOR	*	2830	M253	LOGON/LOGOFF, SCHEDULING, DS
TREE	DISPLAY DIRECTORY TREE STRUCTURE	*	2830	M098	DIRECTORY, CI
TRFIL	FMGR TRANSFER FILE INTERPRETER	*	2830	M254	INTERPRETER, FMGR
TUTOR	INTERACTIVE TUTORIAL GENERATOR	*	2830	M255	INTERACTIVE, DEMO
UCOPY	COPY FILE BASED ON MASK	*	2830	M256	COPY, FILTER, CI
UPROJ	PROJECT REPORTER	*	2830	M102	REPORTS
VCOM	VISUAL SOURCE COMPARE	*	2830	M257	COMPARE, FILES, INTERACTIVE
VDISCU	DISC UTILITIES FOR RTE-A VC+ VERSION 5.0	*	2830	M023	SYSTEM, SYSTEM TABLES, DISC, MAP
WAKEUP	TERMINAL ACTIVITY MONITOR	*	2830	M258	TERMINAL, SYSTEM, CI
WHAT	MONITOR SYSTEM TABLES, SUPPLEMENTS WH UTILITY	*	2830	M048	SYSTEM TABLES, ID SEGMENTS, ANALYZER
WHATREV	SEARCH REVISION CODE IN A PROGRAM FILE	*	2830	M068	PROCEDURES, SECURITY
WHERE	WHERE IS EVERYONE	*	2830	M259	DATA BASE, OFFICE
WHOLOCK	WHO LOCKED THE LU'S	*	2830	M115	SYSTEM, REPORTS
WHOS6	TYPE 6 FILE OWNERSHIP	*	2830	M260	MANAGEMENT, MAINTENANCE, SYSTEM TABLES
WHR	SESSION ACTIVITY REPORT UTLITY	*	2830	M067	SESSION, ACCOUNTING
XACTNS	FILE COUNTER FOR QDM/1000	*	2830	M072	QDM
ZAPDB	REMOVE DEBUG AND LINDX RECORDS	*	2830	M261	DEBUG, RELOCATABLE

SECTION III

CSL/1000 Release 2830

KEYWORD CROSS-REFERENCE INDEX

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

INDEX BY KEYWORD

CONTRIBUTION NAME	CONTRIBUTION TITLE	REV.	CONT. NO.	KEYWORDS
ACCOUNTING				
TASK	TIME ACCOUNTING TOOL	* 2830	M251	ACCOUNTING, TIME, IMAGE
WHR	SESSION ACTIVITY REPORT UTLITY	* 2830	M067	SESSION, ACCOUNTING
ANALYZER				
ACDA	RTE-A CRASH DUMP ANALYZER	* 2830	M209	ANALYZER, DUMP, SYSTEM
CMMA	CMMA SYSTEM ANALYZER	* 2830	M216	SYSTEM, ANALYZER, SYSTEM_TABLES
FMPPROFILE	D.RTR ANALYZER	* 2830	M225	DISC, ANALYZER
LOOKY	SYSTEM MAINTENANCE UTILITY	* 2830	M236	MAINTENANCE, SYSTEM_TABLES, ANALYZER
PROBE	NETWORK NODE ANALYZER	* 2830	M243	DS, NETWORK, ANALYZER
WHAT	MONITOR SYSTEM TABLES, SUPPLEMENTS WH UTILITY	* 2830	M048	SYSTEM_TABLES, ID_SEGMENTS, RESOURCE_NUMBER, ANALYZER
ARCHIVE				
COMPRESS	ADAPTIVE LEMPEL-ZIV-WELCH FILE COMPRESSOR	* 2830	M095	ARCHIVE, PACK, STORAGE, UNIX
ASCII				
FIND	FIND ASCII STRING ON DISC	* 2830	M012	DISC, ASCII, SEARCH
ASSEMBLER				
RPOK	RPOK ROUTINE FOR CONTRIBUTION H022	* 2830	M030	ASSEMBLER, SEARCH, SORT
ASTRONOMY				
FA88,FA89	THE FLOPPY ALMANAC	* 2830	M047	DATE, ASTRONOMY
BACKUP				
CLRBB	CLEAR BACKUP BIT	* 2830	M099	FILES, BACKUP
BATCH				
BUGOF	BATCH MODE DEBUGGING AID	* 2830	M091	DEBUG, BATCH
INVOKE	INVOKE A PROGRAM WITH FILE MASK	* 2830	M063	SCHEDULING, BATCH, FILTER
BOOT-UP				
MENU	STARTUP PROGRAM FOR MEMORY BASED SYSTEMS	* 2830	M092	SYSTEM, BOOT-UP
CALCULATOR				
CALC	A COMPUTERIZED CALCULATOR (REV 2815)	* 2830	M109	CALCULATOR, CI
ECALC	EXPRESSION CALCULATOR	* 2830	M028	CALCULATOR
HPCA	HP RPN CALCULATOR	* 2830	M231	CALCULATOR
HPCA2	HP RPN CALCULATOR	* 2830	M232	CALCULATOR
HPCA3	HP RPN CALCULATOR	* 2830	M233	CALCULATOR, TOUCH

INDEX BY KEYWORD

CONTRIBUTION NAME	CONTRIBUTION TITLE	REV.	CONT. NO.	KEYWORDS
CALENDAR				
ANNIV	ANNIVERSARIES	* 2830	M212	DATE, CALENDAR, TIME
APPT	AN APPOINTMENT REMINDER PROGRAM	* 2830	M108	CALENDAR, DATE, TIME
APPTS	A CALENDAR SYSTEM FOR THE MODERN EXECUTIVE	* 2830	M057	CALENDAR, SCHEDULING
CHARACTER				
CHAR	PRODUCE A CHARACTER SET DISPLAY	* 2830	M117	CHARACTER, TERMINAL
CI				
BIT_MAP_ANALYSIS	ANALYZE BIT MAP OF CI VOLUMES	* 2830	M070	CI, DISC
CALC	A COMPUTERIZED CALCULATOR (REV 2815)	* 2830	M109	CALCULATOR, CI
CHD	CHANGE DIRECTORY	* 2830	M066	CI, DIRECTORY
DATE	RETURN DATE/TIME TO CI	* 2830	M075	DATE, TIME, CI
DLICI	LIST DIRECTORY CHANGES BETWEEN SPECIFIED TIMES	* 2830	M065	CI, DIRECTORY
DP	DISPLAY PARAMETERS IN VARIOUS FORMATS	* 2830	M076	CI, TOOLS
FS	DISC BIT MAP DISPLAY	* 2830	M039	MAP, STORAGE, DISC, CI
GET	INTERACTIVE CI PROMPT	* 2830	M228	CI, COMMAND_FILES
KEEP	RP AND MAKE PROGRAM PERMANENT	* 2830	M234	CI, ID_SEGMENTS, SYSTEM
MASS	MULTI RUN-PROGRAM WITH FILE-MASK	* 2830	M073	FILTER, CI
MPACK	MASTER DISC PACKER	* 2830	M237	CI, DISC, MAINTENANCE, PACK
PAUSE	INTERACTIVE PAUSE	* 2830	M035	CI, COMMAND_FILES
PAWS	CI PAUSE COMMAND	* 2830	M239	COMMAND_FILES, CI
QRP	QUICK RP	* 2830	M246	CI, SYSTEM, MAINTENANCE
TREE	DISPLAY DIRECTORY TREE STRUCTURE	* 2830	M098	DIRECTORY, CI
UCOPY	COPY FILE BASED ON MASK	* 2830	M256	COPY, FILTER, CI
WAKEUP	TERMINAL ACTIVITY MONITOR	* 2830	M258	TERMINAL, SYSTEM, CI
COMMAND_FILES				
GET	INTERACTIVE CI PROMPT	* 2830	M228	CI, COMMAND_FILES
PAUSE	INTERACTIVE PAUSE	* 2830	M035	CI, COMMAND_FILES
PAWS	CI PAUSE COMMAND	* 2830	M239	COMMAND_FILES, CI
COMPARE				
CFILES	COMPARE FILES	* 2830	M214	COMPARE, FILES
RELCHANGE	COMPARE RELOCATABLES	* 2830	M247	COMPARE, RELOCATABLE, FILES
VCOM	VISUAL SOURCE COMPARE	* 2830	M257	COMPARE, FILES, INTERACTIVE
COMPILER				
PREX	SET EXEC CALL MESSAGE LENGTH	* 2830	M242	COMPILER, PRE-PROCESSOR
CONFIGURE				
DRIVERPARM	CREATE CS-80 DVT ENTRY SEQUENCE	* 2830	M002	DRIVER, CONFIGURE, SYSTEM, GENERATION

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CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
CONVERSION					
CNVRT	SMALL INTERNAL CONVERSION FORMATTER	*	2830	M037	FORMATTING, CONVERSION, LIBRARY
COPY					
COPY	FILE/TAPE COPYING WITH BLOCKING & CONVERSION	*	2830	M112	COPY, MAGNETIC_TAPE
EMACOPY	COPY INTEGER*2 DATA IN/OUT/WITHIN EMA FAST	*	2830	M031	EMA/VMA, COPY
MAKETAPES	MANUFACTURE REEL-TO-REEL TAPES IN VOLUME	*	2830	M032	COPY, MAGNETIC_TAPE
M_DUPE	MAGNETIC TAPE DUPLICATOR	*	2830	M107	MAGNETIC_TAPE, COPY
UCOPY	COPY FILE BASED ON MASK	*	2830	M256	COPY, FILTER, CI
DATA_BASE					
PLIST	PHONE LIST DATA BASE	*	2830	M241	MAIL, IMAGE, DATA_BASE
WHERE	WHERE IS EVERYONE	*	2830	M259	DATA_BASE, OFFICE
DATA_COMM					
KERMIT	KERMIT 1.99C - MACHINE-TO-MACHINE FILE TRANSFER	*	2830	M077	FILE_TRANSFER, DATA_COMM, NETWORK
DATE					
ANNIV	ANNIVERSARIES	*	2830	M212	DATE, CALENDAR, TIME
APPT	AN APPOINTMENT REMINDER PROGRAM	*	2830	M108	CALENDAR, DATE, TIME
DATE	RETURN DATE/TIME TO CI	*	2830	M075	DATE, TIME, CI
DATEX	UNIVERSAL DATE FORMATTER	*	2830	M029	TIME, DATE, STRINGS
FA88,FA89	THE FLOPPY ALMANAC	*	2830	M047	DATE, ASTRONOMY
TIME	TIME UTILITY AS IN (HOPEFULLY) UNIX	*	2830	M018	TIME, DATE, UNIX
DEBUG					
BUGOF	BATCH MODE DEBUGGING AID	*	2830	M091	DEBUG, BATCH
CHNAM	FIX DEBUG FILES	*	2830	M215	DEBUG, RELOCATABLE
DXI	DEBUG INFORMATION EXTRACTION INTERFACE	*	2830	M219	DEBUG, SYSTEM_TABLES
ZAPDB	REMOVE DEBUG AND LINDX RECORDS	*	2830	M261	DEBUG, RELOCATABLE
DECODE					
HACKER	RTE-6 SYSTEM INFORMATION PROGRAM	*	2830	M061	SYSTEM, DECODE, SECURITY
HACKER	RTE-A SYSTEM INFORMATION PROGRAM	*	2830	M062	SYSTEM, SECURITY, DECODE
DEMO					
TUTOR	INTERACTIVE TUTORIAL GENERATOR	*	2830	M255	INTERACTIVE, DEMO
DIAGNOSTIC					
DVERI	DISC VERIFICATION ON-LINE	*	2830	M038	SYSTEM, DIAGNOSTIC, DISC
SHOWP	DYNAMIC SYSTEM STATUS DISPLAY	*	2830	M001	DISPLAY, MONITOR, SYSTEM, DIAGNOSTIC

INDEX BY KEYWORD

CONTRIBUTION NAME	CONTRIBUTION TITLE	REV.	CONT. NO.	KEYWORDS
DIRECTORY				
CHD	CHANGE DIRECTORY	* 2830	M066	CI, DIRECTORY
DF	DIRECTORY AND FILE INFORMATION	* 2830	M097	FILES, DIRECTORY
DIRTREE	FAST DIRECTORY TREE LISTER VERSION 5.0	* 2830	M026	DIRECTORY
DLICI	LIST DIRECTORY CHANGES BETWEEN SPECIFIED TIMES	* 2830	M065	CI, DIRECTORY
GLOBALSPACE	DISC SPACE REPORT	* 2830	M229	DISC, MANAGEMENT, DIRECTORY
ND	COMMAND STACK FOR DIRECTORY NAMES	* 2830	M238	DIRECTORY, SHELL, INTERACTIVE
SEARCH	SEARCH FOR STRING ACROSS DIRECTORY	* 2830	M045	SEARCH, DIRECTORY, STRINGS
TREE	DISPLAY DIRECTORY TREE STRUCTURE	* 2830	M098	DIRECTORY, CI
DISC				
ADISCU	DISC UTILITIES FOR RTE-A, VERSION 5.0. NON CDS	* 2830	M020	SYSTEM, SYSTEM_TABLES, DISC
BITMAP	DISC BIT MAP DISPLAY	* 2830	M009	DISC
BIT_MAP_ANALYSIS	ANALYZE BIT MAP OF CI VOLUMES	* 2830	M070	CI, DISC
CLAL	EXPANDED DISC-INFORMATION UTILITY	* 2830	M003	SYSTEM, DISC
DVERI	DISC VERIFICATION ON-LINE	* 2830	M038	SYSTEM, DIAGNOSTIC, DISC
FIND	FIND ASCII STRING ON DISC	* 2830	M012	DISC, ASCII, SEARCH
FMPPROFILE	D.RTR ANALYZER	* 2830	M225	DISC, ANALYZER
FS	DISC BIT MAP DISPLAY	* 2830	M039	MAP, STORAGE, DISC, CI
GLOBALSPACE	DISC SPACE REPORT	* 2830	M229	DISC, MANAGEMENT, DIRECTORY
MPACK	MASTER DISC PACKER	* 2830	M237	CI, DISC, MAINTENANCE, PACK
VDISCU	DISC UTILITIES FOR RTE-A VC+ VERSION 5.0	* 2830	M023	SYSTEM, SYSTEM_TABLES, DISC, MAP
DISPLAY				
SHOWP	DYNAMIC SYSTEM STATUS DISPLAY	* 2830	M001	DISPLAY, MONITOR, SYSTEM, DIAGNOSTIC
DOCUMENTATION				
CALLS	HELP FILE FOR SUBROUTINE CALLS	* 2830	M213	HELP, DOCUMENTATION
MANUAL	CSL/1000 UTILITIES REFERENCE MANUAL	* 2830	M013	DOCUMENTATION
DRIVER				
DRIVERPARM	CREATE CS-80 DVT ENTRY SEQUENCE	* 2830	M002	DRIVER, CONFIGURE, SYSTEM, GENERATION
GENRECORDS	READ GEN RECORDS FROM DRIVER RELOCATABLE	* 2830	M005	DRIVER, RELOCATABLE, GENERATION
DS				
PROBE	NETWORK NODE ANALYZER	* 2830	M243	DS, NETWORK, ANALYZER
RPRINT	REMOTE DS/1000 PRINT PROGRAMS	* 2830	M055	DS, PRINTER
TN	REMOTE LOGON MONITOR	* 2830	M253	LOGON/LOGOFF, SCHEDULING, DS
DUMP				
ACDA	RTE-A CRASH DUMP ANALYZER	* 2830	M209	ANALYZER, DUMP, SYSTEM
F_DUMP	MULTI-PURPOSE FILE/TAPE DUMPING UTILITY	* 2830	M110	DUMP, FILES

INDEX BY KEYWORD

CONTRIBUTION NAME	CONTRIBUTION TITLE	REV.	CONT. NO.	KEYWORDS
EDITOR				
CUT	LINE-RANGE CUT-FILE UTILITY	* 2830	M019	UNIX, EDITOR, TEXT
E4	E4 EDITOR	* 2830	M220	EDITOR, GRAPHICS
EMACS	EMACS EDITOR	* 2830	M221	EDITOR
KEYUP	UPDATE IMAGE KEYS	* 2830	M235	IMAGE, EDITOR
MICROEMACS	MICROEMACS EDITOR	* 2830	M222	EDITOR
PEDIT	PROGRAMMATIC LINE EDITOR	* 2830	M011	INTERACTIVE, EDITOR
EMA/VMA				
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ENGINEERING				
RK	RUNGE-KUTTA DIFFERENTIAL EQ'N SOLVERS	* 2830	M093	ENGINEERING, FLOATING_POINT, MATHEMATICS, PHYSICS
RKN	RUNGE-KUTTA-NYSTROM DIFFERENTIAL EQ'N SOLVERS	* 2830	M094	ENGINEERING, MATHEMATICS
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CHANGEPAT	FAST PATTERN EXCHANGER VERSION 5.0	* 2830	M024	TOOLS, FILTER, SEARCH
DLONG	LIST LONG FILE NAMES	* 2830	M218	FILTER, LIST
FINDPAT	FAST PATTERN FINDER VERSION 5.1	* 2830	M021	TOOLS, SEARCH, FILTER
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RPALL	RP, THEN OF, ALL FILES IN MASK	* 2830	M248	SYSTEM, MAINTENANCE, FILTER
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UCOPY	COPY FILE BASED ON MASK	* 2830	M256	COPY, FILTER, CI
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CNVRT	SMALL INTERNAL CONVERSION FORMATTER	* 2830	M037	FORMATTING, CONVERSION, LIBRARY
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PLOT	GENERAL PLOT PROGRAM (PART 2 OF 3)	* 2830	M043	PLOTTING, GRAPHICS
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ERR	AN ERROR REPORTING PROGRAM FOR MOST HP ERRORS	* 2830	M106	ERROR, REPORTS, HELP
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IOP	FANCY CI IO COMMAND	* 2830	M113	I/O, SYSTEM
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ND	COMMAND STACK FOR DIRECTORY NAMES	*	2830	M238	DIRECTORY, SHELL, INTERACTIVE
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VCOM	VISUAL SOURCE COMPARE	*	2830	M257	COMPARE, FILES, INTERACTIVE
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WHOS6	TYPE 6 FILE OWNERSHIP	*	2830	M260	MANAGEMENT, MAINTENANCE, SYSTEM_TABLES
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DRIVERPARM	CREATE CS-80 DVT ENTRY SEQUENCE	*	2830	M002	DRIVER, CONFIGURE, SYSTEM, GENERATION
DVERI	DISC VERIFICATION ON-LINE	*	2830	M038	SYSTEM, DIAGNOSTIC, DISC
DVT	GET DVT AND IFT INFORMATION	*	2830	M104	SYSTEM, SYSTEM_TABLES
GJOB	VARIOUS PROGRAMS FROM DSD	*	2830	M200	SYSTEM, HELP
HACKER	RTE-6 SYSTEM INFORMATION PROGRAM	*	2830	M061	SYSTEM, DECODE, SECURITY
HACKER	RTE-A SYSTEM INFORMATION PROGRAM	*	2830	M062	SYSTEM, SECURITY, DECODE
IOP	FANCY CI IO COMMAND	*	2830	M113	I/O, SYSTEM
KEEP	RP AND MAKE PROGRAM PERMANENT	*	2830	M234	CI, ID_SEGMENTS, SYSTEM
MENU	STARTUP PROGRAM FOR MEMORY BASED SYSTEMS	*	2830	M092	SYSTEM, BOOT-UP
NULLJOB	DISPLAY TOTAL PERCENTAGE OF CPU UTILIZATION	*	2830	M034	REPORTS, PERFORMANCE, SYSTEM
PASS_CHECK6	RTE-6 PASSWORD AGING	*	2830	M040	SYSTEM, SECURITY, SESSION
PATCHBITMAP	CHANGE SENSE OF BITS IN DISC LU BITMAPS	*	2830	M022	SYSTEM, SYSTEM_TABLES
QRP	QUICK RP	*	2830	M246	CI, SYSTEM, MAINTENANCE
ROOT	GIVE SUPER-USER CAPABILITY	*	2830	M006	SYSTEM, SECURITY
RPALL	RP, THEN OF, ALL FILES IN MASK	*	2830	M248	SYSTEM, MAINTENANCE, FILTER
RPCHK	CHECK FOR LEGAL PROGRAM FILES	*	2830	M249	SYSTEM, MAINTENANCE
SET_TIME	AUTOMATICALLY SET SYSTEM TIME FROM HAYES CLOCK	*	2830	M116	TIME, SYSTEM
SHOWP	DYNAMIC SYSTEM STATUS DISPLAY	*	2830	M001	DISPLAY, MONITOR, SYSTEM, DIAGNOSTIC
SKED	TIME-SCHEDULED PROGRAM SCHEDULER	*	2830	M056	SCHEDULING, SYSTEM
TERM_TYPE	OBTAIN TERMINAL TYPE	*	2830	M252	TERMINAL, SYSTEM
VDISCU	DISC UTILITIES FOR RTE-A VC+ VERSION 5.0	*	2830	M023	SYSTEM, SYSTEM_TABLES, DISC, MAP
WAKEUP	TERMINAL ACTIVITY MONITOR	*	2830	M258	TERMINAL, SYSTEM, CI
WHOLOCK	WHO LOCKED THE LU'S	*	2830	M115	SYSTEM, REPORTS
SYSTEM_TABLES					
ADISCU	DISC UTILITIES FOR RTE-A, VERSION 5.0. NON CDS	*	2830	M020	SYSTEM, SYSTEM_TABLES, DISC
AGING ON RTE-A	RTE-6/VM LIKE PARTITION PRIORITY AGING ON RTE-A	*	2830	M071	PARTITION, SYSTEM, SYSTEM_TABLES
CMMA	CMMA SYSTEM ANALYZER	*	2830	M216	SYSTEM, ANALYZER, SYSTEM_TABLES
DVT	GET DVT AND IFT INFORMATION	*	2830	M104	SYSTEM, SYSTEM_TABLES
DXI	DEBUG INFORMATION EXTRACTION INTERFACE	*	2830	M219	DEBUG, SYSTEM_TABLES
LOOKY	SYSTEM MAINTENANCE UTILITY	*	2830	M236	MAINTENANCE, SYSTEM_TABLES, ANALYZER
PATCHBITMAP	CHANGE SENSE OF BITS IN DISC LU BITMAPS	*	2830	M022	SYSTEM, SYSTEM_TABLES
RTEQ6	ID SEGMENT LISTER	*	2830	M250	ID_SEGMENTS, SYSTEM_TABLES, MAINTENANCE
VDISCU	DISC UTILITIES FOR RTE-A VC+ VERSION 5.0	*	2830	M023	SYSTEM, SYSTEM_TABLES, DISC, MAP
WHAT	MONITOR SYSTEM TABLES, SUPPLEMENTS WH UTILITY	*	2830	M048	SYSTEM_TABLES, ID_SEGMENTS, RESOURCE_NUMBER, ANALYZER
WHOS6	TYPE 6 FILE OWNERSHIP	*	2830	M260	MANAGEMENT, MAINTENANCE, SYSTEM_TABLES
TERMINAL					
CHAR	PRODUCE A CHARACTER SET DISPLAY	*	2830	M117	CHARACTER, TERMINAL
PRINTS	CONTENTS OF A TERMINAL SCREEN TO LINE PRINTER	*	2830	M103	PRINTER, TERMINAL
SFKEY	KEYSET LOAD UTILITY	*	2830	M089	SOFTKEYS, TERMINAL
TERM_INIT	A TERMINAL SOFT KEY INITIALIZATION PROGRAM	*	2830	M111	SOFTKEYS, TERMINAL
TERM_TYPE	OBTAIN TERMINAL TYPE	*	2830	M252	TERMINAL, SYSTEM
TGL	TERMINAL GRAPHICS LIBRARY	*	2830	M064	TERMINAL, GRAPHICS, LIBRARY
WAKEUP	TERMINAL ACTIVITY MONITOR	*	2830	M258	TERMINAL, SYSTEM, CI
TEXT					
CUT	LINE-RANGE CUT-FILE UTILITY	*	2830	M019	UNIX, EDITOR, TEXT

INDEX BY KEYWORD

CONTRIBUTION NAME	CONTRIBUTION TITLE		REV.	CONT. NO.	KEYWORDS
TIME					
ANNIV	ANNIVERSARIES	*	2830	M212	DATE, CALENDAR, TIME
APPT	AN APPOINTMENT REMINDER PROGRAM	*	2830	M108	CALENDAR, DATE, TIME
DATE	RETURN DATE/TIME TO CI	*	2830	M075	DATE, TIME, CI
DATEX	UNIVERSAL DATE FORMATTER	*	2830	M029	TIME, DATE, STRINGS
SET_TIME	AUTOMATICALLY SET SYSTEM TIME FROM HAYES CLOCK	*	2830	M116	TIME, SYSTEM
TASK	TIME ACCOUNTING TOOL	*	2830	M251	ACCOUNTING, TIME, IMAGE
TIME	TIME UTILITY AS IN (HOPEFULLY) UNIX	*	2830	M018	TIME, DATE, UNIX
TIMER	TIME PROCESSES	*	2830	M033	TIME, REPORTS
TOOLS					
CHANGEPAT	FAST PATTERN EXCHANGER VERSION 5.0	*	2830	M024	TOOLS, FILTER, SEARCH
DP	DISPLAY PARAMETERS IN VARIOUS FORMATS	*	2830	M076	CI, TOOLS
FINDPAT	FAST PATTERN FINDER VERSION 5.1	*	2830	M021	TOOLS, SEARCH, FILTER
TOUCH					
HPCA3	HP RPN CALCULATOR	*	2830	M233	CALCULATOR, TOUCH
UNIX					
COMPRESS	ADAPTIVE LEMPEL-ZIV-WELCH FILE COMPRESSOR	*	2830	M095	ARCHIVE, PACK, STORAGE, UNIX
CUT	LINE-RANGE CUT-FILE UTILITY	*	2830	M019	UNIX, EDITOR, TEXT
GREP/1000	UNIX/EGREP FOR THE HP-1000	*	2830	M016	UNIX, SEARCH, FILES
TIME	TIME UTILITY AS IN (HOPEFULLY) UNIX	*	2830	M018	TIME, DATE, UNIX
WORD_PROCESSING					
FONTEDIT	LOAD AND EDIT LASERJET+ SOFT FONTS	*	2830	M046	WORD_PROCESSING, LASERJET, FONT

SECTION IV

CSL/1000 Release 2830

CONTRIBUTION ABSTRACTS

SHOWP M001

DYNAMIC SYSTEM STATUS DISPLAY

```
Contribution Name...........: SHOWP
   Title....................: Dynamic system status display
   File Names..............:00. Rename Transfer File
                           :01. SHOWP.SBMT        Submission file
                           :02. SHOWP.LOD         Link command file
                           :03. SHOWP.FTN         Fortran 7x source file
                           :04. SHOWP.REL         Relocatable
                           :05. SHOWP.HLP         Help file
                           :06. STATES.INC        Common block
                           :07. CONTROL.INC       Common block
                           :08. UTILITIES.FTN     Screen utility routines
                           :09  UTIL_BUFFER.INC   Common block
                           :10. UTILITIES.REL     Relocatable
   Operating System(s).....:RTE-A Only
   Language(s).............:Fortran 7x
   Keywords................: 1. Display
                           : 2. Monitor
                           : 3. System
                           : 4. Diagnostic
   External Support Req'd...: HP26xx, HP23xx terminal.
                              (In fact any HP addressable terminal)
   If Re-submission, Reason.:
Contributor's Name..........:A.R. Gray
             Company........:Thurston Software Consultants
             Street.........:12 Stortford road
             City...........:Great Dunmow
             State..........:Essex
             Country........:UK
             Zip Code.......:CM6 1DA
             Phone Number...:0371-5515
             Telex..........:
Contribution Abstract.......:
```

This program displays information on all programs with an ID segment table entry. The programs are listed left to right/top to bottom in the order they appear in the ID table.

DELAY is an optional parameter which when specified is the delay between display updates expressed in 10's of millisecs. If omitted delay is taken as 100 (i.e. once a second) Delay can be any value between 10 - 32767, although values above 100 will not yield any useful dynamic information. The bottom limit of 10 millisecs was chosen so as not to degrade system performance excessively

Six items of information are displayed using a combination of text and screen highlights:

- Program name
- Session number
- Priority
- Program status
- Memory status (I.e "In" or swapped out)
- Break flag

Additional Documentation....:See the help file SHOWP.HLP

DRIVERPARM M002

CREATE CS-80 DVT ENTRY SEQUENCE

```
Contribution Name...........: Driverparm
   Title....................: Create CS-80 DVT entry sequence
   File Names..............: 00. Rename transfer file
                           : 01. DRIVERPARM.SBMT
                           : 02. DRIVERPARM.FTN
                           : 03. DRIVERPARM_LIB.FTN
                           : 04. CMDSTACK.MAC
                           : 05. LEFTJUSTIFY.MAC
                           : 06. MERGE_FILES.MRG
                           : 07. DRIVERPARM.CMD
                           : 08. DRIVERPARM.REL
                           : 09. DRIVERPARM_LIB.REL
                           : 10. DRIVERPARM.LIB
   Operating System(s).....: RTE-A
   Language(s).............: FTN7X & MACRO FOR COMMANDSTACK UTILITIES
                            CMDSTACK & LEFTJUSTIFY IS FROM CSL
   Keywords................: 1. Driver
                           : 2. Configure
                           : 3. System
                           : 4. Generation
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........: ACHIM ULRICH
             Company........: HEWLETT PACKARD
             Street.........: HEWLETT PACKARDSTR.
             City...........: BAD HOMBURG v.d.H
             State..........: GERMANY
             Country........: GERMANY/EUROPE
             Zip Code.......:
             Phone Number...: 06172 400-402
             Telex..........:
Program Abstract............:  Will give you a textfile containing
the complete DVT entry sequence that you need in the answer file for
generation. For example, run DRIVERPARM to create a file ( p.e. m7933.gen ).
Then modify your answerfile depending to your system and merge m7933.gen
into your answerfile at the proper position. Take care about searchpathes
and drivernames. DRIVERPARM also create a stackfile reusing it at restart.
Additional Documentation....: SEE SOURCE

TAKE CARE ABOUT SEARCH PATHES IN THE FILE
CREATED BY DRIVERPARM AND DON'T FORGET THE
IFT ENTRY !!
```

CLAL M003

EXPANDED DISC-INFORMATION UTILITY

```
Contribution Name.....: CLAL
   Title..............: Expanded disc-information utility
   File Names.........: 00. Rename transfer file
                      : 01. CLAL.SBMT
                      : 02. CLAL.FTN   FOR RTE-A
                      : 03. CLAL.REL
   Operating System(s)...: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. System
                      : 2. Disc
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: ACHIM ULRICH
             Company...: HEWLETT PACKARD
             Street....: HEWLETT PACKARDSTR.
             City......: BAD HOMBURG v.d.H
             State.....: GERMANY
             Country...: GERMANY/EUROPE
             Zip Code..:
             Phone Number..: 06172 400-402
             Telex.....:
Program Abstract.....:
     Gives user a listing similar to RTE-VI command CL,AL
          Listing look's as follows:

   LU   Last Trck  CRN/CI sec/trck  locked  11:21 AM  WED., 24  FEB., 1988
                                       by
   16     00399       CI      48
   17     00942       CI      48
   22     00938       CI      48
   29     02625       CI      48
   23     00423       23      48
   30     00603       CI      48     KEYNU/73
   49     01621       CI      48
```

MAKE_KEYS M004

MAKE/SET TERMINAL SOFTKEYS

```
Contribution Name.....: MAKE_KEYS
   Title..............: Make/set terminal softkeys
   File Names.........: 00. Rename transfer file
                      : 01. MAKE_KEYS.SBMT
                      : 02. MAKE_KEYS.FTN  FOR RTE-A
                      : 03. MAKE_KEYS.REL
   Operating System(s)...: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. SOFTKEYS
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: ACHIM ULRICH
             Company...: HEWLETT PACKARD
             Street....: HEWLETT PACKARDSTR.
             City......: BAD HOMBURG v.d.H
             State.....: GERMANY
             Country...: GERMANY/EUROPE
             Zip Code..:
             Phone Number..: 06172 400-402
             Telex.....:
Program Abstract.....: Running MAKE_KEYS will create a PROGRAM,
                       that's the reason you need the ftn7x compiler.
                       This program will set the softkeys according
                       to the values in Make_keys specified ( this
                       is not a transferfile !!!!! ).
                       You can start those programs by fmprunprogram
                       in your software.
```

GENRECORDS M005

READ GEN RECORDS FROM DRIVER RELOCATABLE

```
Contribution Name.....: GENRECORDS
   Title..............: Read GEN records from driver relocatable
   File Names.........: 00. Rename transfer file
                      : 01. GENRECORDS.SBMT
                      : 02. GENRECORDS.FTN   FOR RTE
                      : 03. GENRECORDS.REL
   Operating System(s)...: RTE-A  OR RTE-VI WITH CI VOLUMES
   Language(s)........: FTN7X
   Keywords...........: 1. Driver
                      : 2. Relocatable
                      : 3. Generation
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: ACHIM ULRICH / LORENZ HIEMER
             Company...: HEWLETT PACKARD
             Street....: HEWLETT PACKARDSTR.
             City......: BAD HOMBURG v.d.H
             State.....: GERMANY
             Country...: GERMANY/EUROPE
             Zip Code..:
             Phone Number..: 06172 400-402
             Telex.....:
Program Abstract.....: Lists the GEN records from driver relocatable.
                       'RU,GENRECORDS,<lu> will direct listing to
                       specified lu.
```

M006

ROOT — GIVE SUPER-USER CAPABILITY

Contribution Name	ROOT
Title	Give super-user capability
File Names	00. Rename transfer file
	01. ROOT.SBMT
	02. ROOT.FTN FOR RTE-A
	03. ROOT.REL
Operating System(s)	RTE-A
Language(s)	FTN7X
Keywords	1. system
	2. security
External Support Req'd	
If Re-submission, Reason.	
Contributor's Name	ACHIM ULRICH
Company	HEWLETT PACKARD
Street	HEWLETT PACKARDSTR.
City	BAD HOMBURG v.d.H
State	GERMANY
Country	GERMANY/EUROPE
Zip Code	
Phone Number	06172 400-402
Telex	
Program Abstract	Gives you super-user capability by starting a 'superci'. The program asks you for a password, which is linked to the current system time (variable password). See source code for password algorithm.

Note: On directory /PROGRAMS make a copy of CI.RUN called SUPERCI.RUN.

M007

TE — SEND MSGS TO USER (LIKE 3000 TELL)

Contribution Name	TE
Title	send msgs to user (like 3000 TELL)
File Names	00. Rename transfer file
	01. TE.SBMT
	02. TE.FTN FOR RTE-A
	03. TE.REL
Operating System(s)	RTE-A
Language(s)	FTN7X
Keywords	1. Message
External Support Req'd	
If Re-submission, Reason.	
Contributor's Name	ACHIM ULRICH
Company	HEWLETT PACKARD
Street	HEWLETT PACKARDSTR.
City	BAD HOMBURG v.d.H
State	GERMANY
Country	GERMANY/EUROPE
Zip Code	
Phone Number	06172 400-402
Telex	
Program Abstract	Running the program, will show you wh,se and ask for specified lu#. @ means broadcast to all active sessions (also locked lu's), next question is for message. Take care of the length of the message. You also can specify lu and text in the runstring. TE will prompt you for all he's missing.

M008

KILLEXT — KILLS EXTENTS (USE W/ TRANSFER FILES)

Contribution Name	KILLEXT
Title	Kills extents (use w/ transfer files)
File Names	00. Rename transfer file
	01. KILLEXT.SBMT
	02. KILLEXT.FTN
	03. KILLEXT.REL
Operating System(s)	RTE-A / RTE-6/VM w/ CI vol.
Language(s)	FTN7X
Keywords	1. Files
	2. Extents
External Support Req'd	
If Re-submission, Reason.	
Contributor's Name	ACHIM ULRICH
Company	HEWLETT PACKARD
Street	HEWLETT PACKARDSTR.
City	BAD HOMBURG v.d.H
State	GERMANY
Country	GERMANY/EUROPE
Zip Code	
Phone Number	06172 400-402
Telex	
Program Abstract	Running the program, will kill the type ext. of the filename, if given in the runstring. If there is no extension doesn't matter. EX. killext $1 ($1 = test.pas) will bring in $return_s => TEST alone.

BITMAP M009

DISC BIT MAP DISPLAY

```
Contribution Name.....: BITMAP
   Title..............: Disc bit map display
   File Names.........: 00. Rename transfer file
                      : 01. BITMAP.SBMT
                      : 02. BITMAP.FTN
                      : 03. BITMAP.REL

   Operating System(s).: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. Disc
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: ACHIM ULRICH
            Company....: HEWLETT PACKARD
            Street.....: HEWLETT PACKARDSTR.
            City.......: BAD HOMBURG v.d.H
            State......: GERMANY
            Country....: GERMANY/EUROPE
            Zip Code...:
            Phone Number..: 06172 400-402
            Telex......:
Program Abstract.....: An interactive program which shows the
                       use of the bitmap ( blocks used or free );
                       a disc dump to the terminal screen is also
                       possible.
```

MORE_A_TO M010

PAGINATED LIST COMMAND

```
Contribution Name.....: MORE_A_TO
   Title..............: Paginated list command
   File Names.........: 00. Rename transfer file
                      : 01. MORE_A_TO.SBMT
                      : 02. MORE_A_TO.FTN
                      : 03. MORE_A_TO.REL
   Operating System(s).: RTE-A / RTE-VI
   Language(s)........: FTN7X
   Keywords...........: 1. Files
                      : 2. Formatting
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: ACHIM ULRICH
            Company....: HEWLETT PACKARD
            Street.....: HEWLETT PACKARDSTR.
            City.......: BAD HOMBURG v.d.H
            State......: GERMANY
            Country....: GERMANY/EUROPE
            Zip Code...:
            Phone Number..: 06172 400-402
            Telex......:
Program Abstract.....: Calling the subroutine in output loops will
                       stop the output after 20 lines of text and ask
                       more ( a to abort ).  Similar to the fmplist
                       routine.
```

PEDIT M011

PROGRAMMATIC LINE EDITOR

```
Contribution Name.....: PEDIT
   Title..............: Programmatic line editor
   File Names.........:00. Rename Transfer File
                      :01. PEDIT.SBMT
                      :02. &PEDIT  - Source of utility
                      :03. %PEDIT  - Relocatable
                      :04. &PTEST  - Source of test program
                      :05. %PTEST  - Relocatable
                      :06. #PTEST  - Link file
   Operating System...: RTE-IVB, RTE-6/VM
   Language(s)........: FTN4X
   Keywords...........: 1. Interactive
                      : 2. Editor
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....: Alan Puffett
            Company....: Royal Aircraft Establishment
            Street.....:
            City.......: Clapham
            State......: Bedfordshire
            Country....: United Kingdom
            Post Code..: MK41 6AE
            Phone Number..: 044-234-225562
            Telex......: 825332 MODPE G
Program Abstract.....: This subroutine allows a text string to be
displayed at, or entered from a terminal and then modified an unlimited
number of times, finally being returned to the calling program. It mimics
the pending line edit facility used in EDIT/1000 and allows various modes
by means of CTRL & R,C,I,S & T. When satisfied with the contents of the
string the user returns it by keying RETURN alone. String handling is as
type INTEGER and DECAR is used for string manipulation. However, the buffer
in the parameter list may be EQUIVALENCE'd to a CHARACTER variable in the
main if this is more convenient. All I/O is through EXEC calls and the
formatter is not required.
Additional Documentation....: In source file.
```

FIND **M012**

FIND ASCII STRING ON DISC

```
Contribution Name.....: FIND
   Title..............: Find ASCII string on disc
                       Verrry fast!!
   File Names.........: 00. Rename Transfer File
                      : 01. FIND.SBMT    submit file
                      : 02. FIND.FTN     FTN sources
                      : 03. ASUBS.MAC    MACRO sources
                      : 04. FIND.REL     Relocatable
                      : 05. ASUBS.REL    Relocatable
                      : 06. FIND.LOD     LINK command file
   Operating System(s).: RTE-6,A
   Language(s)........: Fortran, Assembly
   Keywords...........: 1. Disc
                      : 2. ASCII
                      : 3. Search
   External Support Req'd...: None
   If Re-submission, Reason.: Significantly enhanced
Contributor's Name....: Alan R. Whitney
            Company...: MIT Haystack Observatory
            Street....: Off Rt. 40
            City......: Westford
            State.....: MA
            Country...: USA
            Zip Code..: 01886
            Phone Number..: (508) 692-4764
            Telex.....: 948149
Contribution Abstract.....:
```

This is an enhanced version of the program contributed in CSL/1000 Rev 2433. Given a specified ASCII string and a range of tracks to be searched on a specified cartridge or disc-lu, FIND will return the track, sector, word# of all occurrences of the specified string. In addition, if the cartridge is a FMGR cartridge, the file name will be displayed if the match was found within the bounds of a file. Case folding may be optionally specified. Occurrences of the ASCII string which cross track boundaries are also properly identified.

FIND is very useful in finding 'lost' ASCII source code or data files, or for tracking down, for example, all calls to a particular subroutine in a large set of source files. Also useful in crises such as salvaging data on a disc with a damaged directory.

FIND is extremely fast, upwards of 150,000 bytes/second on a quiet A900 (without case folding). Since files are never opened by FIND, there are never any delays due to D.RTR. Thousands of files spanning several thousand tracks can be completely searched in a few minutes.

MANUAL **M013**

CSL/1000 UTILITIES REFERENCE MANUAL

```
Contribution Name.....: MANUAL
   Title..............: CSL/1000 Utilities Reference Manual
   File Names.........:00. Rename Transfer File.
                      :01. MANUAL.SBMT  Submission File.
                      :02. |MODEL       Model Chapter Documentation.
                      :03. |UTIL        Utilities Ref Mnl (RNOFF input)
                      :04. |ADL         ADL Documentation
                      :05. |CALCU       Calculator Documentation
                      :06. |CALLS       Calls Documentation
                      :07. |CHECK       Check_Priority Documentation
                      :08. |CLASS       Class_Documentation
                      :09. |CLRRN       Clrrn Documentation
                      :10. |CMM6        Cmm6 Documentation
                      :11. |CMPAR       Cmpar Documentation
                      :12. |COMPI       Compile Documentation
                      :13. |CPUSE       Cpuse Documentation
                      :14. |CRTID       Crtid Documentation
                      :15. |DBCPD       Dbcpd Documentation
                      :16. |DBCPM       Dbcpm Documentation
                      :17. |DBEXP       DbExplain Documentation
                      :18. |DBMOD       Dbmod Documentation
                      :19. |DBMOV       Dbmov Documentation
                      :20. |DBSEC       Dbsec Documentation
                      :21. |DBSPB       Dbspb Documentation
                      :22. |DBSPC       Dbspc Documentation
                      :23. |DCODE       Dcode Documentation
                      :24. |DFIND       Dfind Documentation
                      :25. |DI          Di Documentation
                      :26. |DLX         Dlx Documentation
                      :27. |FL          Fl Documentation
                      :28. |GETEM       Getem Documentation
                      :29. |GETRS       Getrs Documentation
                      :30. |IDENT       Ident Documentation
                      :31. |KEDIT       Kedit Documentation
                      :32. |LIBLS       Libls Documentation
                      :33. |LIBRN       Librn Documentation
                      :34. |LINKS       Links Documentation
                      :35. |LOGOU       Logout Documentation
                      :36. |LOOK        Look Documentation
                      :37. |LUSTAT      Lu Status Documentation
                      :38. |M2240       M2Z40 Documentation
                      :39. |MEDIT
                      :40. |METER       etc....
                      :41. |ORCAM
                      :42. |PAGID
                      :43. |PARTI
                      :44. |PFILE
                      :45. |POSNT
                      :46. |PRIME
                      :47. |PSCRN
                      :48. |QXREF
                      :49. |RATFR
                      :50. |ROM
                      :51. |RXREF
                      :52. |SAM
                      :53. |SAMSZ
                      :54. |SEEKR
                      :55. |SHOWM
                      :56. |SHOWT
```

```
                                :57. [SNAPS
                                :58. [SORT
                                :59. [SPECT
                                :60. [SPOOL
                                :61. [T2608
                                :62. [TASC
                                :63. [THINK
                                :64. [TIME
                                :65. [TRIMF
                                :66. [TRKCK
                                :67. [TSTGR
                                :68. [TYPE6
                                :69. [UNPUR
                                :70. [UPDF1
                                :71. [URESN
                                :72. [USAGE
                                :73. [VERIF
                                :74. [WHO
                                :75. [XRSYS
                                :76. [ZOT
                                :77. MANUAL.TXT
   Operating System(s)......:
   Language(s)..............:
   Keywords.................: 1. documentation
   External Support Req'd...:
   If Re-submission, Reason.: Added 70 programs to the original
Contributor's Name..........: Antero Airola
               Company......: Kemira OY
               Street.......: PL 36
               City.........: Pori
               State........:
               Country......: Finland
               Zip Code.....: 28101
               Phone Number..: 939-443555
               Telex........:
Contribution Abstract.......:
   This contribution is a Utilities Reference Manual which describes the
use, operation, and installation of several HP-1000 utility programs from
various CSL Tapes.

   Documantation for each of the above utilities is contained in a file
with the name [xxxxx. For example, the documentation for the MGETX program
is in the file [MGETX.

   The file [UTIL is used as the input file to the RNOFF program
(submission I012 in CSL Rev. 2433) to generate the printable manual,
MANUAL as shown below:

                RN,RNOFF,[UTIL,MANUAL

   A hardcopy of the Utilities Reference Manual can be obtained by simply
dumping the output file (Manual.txt) to the printer.

                Print Manual.txt

  The documentation file for each utility, such as [WRITX, is similar
to a FMGR transfer file or a Fortran INCLUDE file and is referenced by
the main documentation file [UTIL.

  The file [MODEL is simply a model for a chapter in the Utilities
Reference Manual. When a new utility is to be added, [MODEL is used to
create the [xxxxx file so that some consistancy is maintained.

   If you wish to change the manual (such as the name of the front cover)
use EDIT/1000 to change the appropriate documentation input file [xxxxx.
Then, use RNOFF to generate a new output.

   Refer to the documantation for the RNOFF utility (a seperate submission)
for further details regarding the generation of formatted manuals.

   This is a re-submission of I030 in CSL/1000 Rev. 2433. I have added
documentation for 70 more CSL programs, which we have found useful at our
site.
```

MSGCOM **M014**

MSGCOM (MISSING FILES FROM LIBC FROM CSL/1000 REV 2730)

```
Contribution Name...........: MSGCOM
   Title....................: MSGCOM (missing files from LIBC from CSL/1000 Rev 2730)
   File Names...............:00. Rename Transfer File
                            :01. MSGCOM.SBMT
                            :02. MSGCOM.FTN     (fortran source)
                            :03. MSGCOM.FTNI    (include file)
   Operating System(s)......: RTE-A or RTE-6/VM
   Language(s)..............: Ftn7x
   Keywords.................: 1. library
   External Support Req'd...: LIBC
   If Re-submission, Reason.: left off of LIBC contribution
Contributor's Name..........: Bill Donze
               Company......: Reliance Electric
               Street.......: 29325 Chagrin Blvd.
               City.........: Cleveland
               State........: Ohio
               Country......: USA
               Zip Code.....: 44122
               Phone Number..: (216) 266-7619
               Telex........:
Contribution Abstract.......:
  These files were inadvertantently omitted from the LIBC contribution
 of CSL/1000 Rev 2730, and are submitted here for completeness.
Additional Documentation....: See source code
```

FFP24 **M015**

E-SERIES DOUBLE-INTEGER AND DOUBLE-PRECISION MICROCODE

```
Contribution Name...........: FFP24
   Title....................: E-series double-integer and double-precision microcode
   File Names...............:00. Rename Transfer File
                            :01. FFP24.SBMT
```

```
                                :02. "FFP24    documentation
                                :03. "FFP      Install instr. (FEM / FAB)
                                :04. &FFP24    Microcode source
                                :05. %FEMUC    Microcode object, FEM
                                :06. %FABUC    Microcode object, FAB
                                :07. !FEMHX    Hex PROM burn file, FEM
                                :08. !FABHX    Hex PROM burn file, FAB
                                :09. &FEMRP    RPL file, FEM board
                                :10. &FABRP    RPL file, FAB board
                                :11. %FEMRP    Relocatable
                                :12. %FABRP    Relocatable
   Operating System(s).....:
   Language(s).............: Assembly
   Keywords................: 1. Microcode
                           : 2. Entry points
   External Support Req'd...: FEM / FAB boards
   If Re-submission, Reason.:
Contributor's Name.........: Bill Gibbons
            Company........: Mirkheim Systems
            Street.........: PO Box 203
            City...........: Los Altos
            State..........: CA
            Country........: USA
            Zip Code.......: 94023
            Phone Number...: (415) 949-5021
            Telex..........:
Contribution Abstract......:
     Twenty-seven instructions are provided:

         Double Integer:      .DAD    .DNG    .DIN    .DMOD
                              .DSB    .DCO    .DDE
                              .DMP    .DSBR   .DIS
                              .DDI    .DDIR   .DDS

         Floating-point:      .TADD   .TFXS   .FIXD   .NGL
                              .TSUB   .TFXD   .FLTD   .BLE
                              .TMPY   .TFTS   ..FCM
                              .TDIV   .TFTD   ..TCM

     These instructions perform the same operations as the F-series
     instructions with the same names, but operate on an E-series computer.
     They provide all of the arithmetic operations on double integer
     (INTEGER*4) and double precision (REAL*8) numbers.  The ".DMOD"
     instruction is not found on the F-series; it computes a double
     integer remainder.
Additional Documentation....: See "FFP24
```

GREP/1000 M016

UNIX/EGREP FOR THE HP-1000

```
Contribution Name..........: GREP/1000
   Title...................: UNIX/EGREP FOR THE HP-1000
   File Names..............:00. Rename Transfer File
                           :01. GREP.SBMT
                           :02. LOAD.CMD
                           :03. GREP.LOD
                           :04. GREP.FTN
                           :05. LIB_BUILD_PAT.FTN
                           :06. LIB_FILES.FTN
                           :07. LIB_GET_RUN_STRI.FTN
                           :08. LIB_GREP.FTN
                           :09. LIB_SEARCH_PAT.FTN
                           :10. GREP.COM
                           :11. USER.DOC
                           :12. GREP.HELP
                           :13. PROGRAMMERS.DOC
                           :14. COMPARISON
   Operating System(s).....: RTE-A 4.1, 5.0 (Others with modifications)
   Language(s).............: FTN7X
   Keywords................: 1. UNIX
                           : 2. SEARCH
                           : 3. FILES
   External Support Req'd...: CDS, HPCRT.LIB
   If Re-submission, Reason.: N/A
Contributor's Name.........: Brian Gray
            Company........: General Tire & Rubber
            Street.........: 1 General St
            City...........: Akron
            State..........: Ohio
            Zip Code.......: 44329
            Phone Number...: 216-798-2026
Contribution Abstract......: GREP IS AN IMPLEMENTATION OF THE UNIX
     EGREP UTILITY, WITH EXTENSIONS TO ADD ALL REGULAR EXPRESSION
     CAPABILITIES OF EDIT/1000.  SOME DEFAULT VALUES HAVE BEEN CHANGED
     FOR EASE OF USE IN THE HP-1000 ENVIRONMENT.

     REGULAR EXPRESSIONS ALLOW THE SPECIFICATION OF A COMPLEX SEARCH PATTERN
     IN A COMPACT FORM.  THIS PATTERN IS USED IN SEARCHING ALL LINES OF
     SPECIFIED FILES.

Additional Documentation....:  A COMPLETE DESCRIPTION OF REGULAR EXPRESSIONS
     AND THEIR USE IS FOUND IN USER.DOC.  NOTES ON THE CONSTRUCTION OF THE
     PROGRAM, AND MODIFICATIONS TO THE PROGRAM, ARE FOUND IN
     PROGRAMMERS.DOC.  ADDITIONAL NOTES ARE FOUND IN THE SOURCE CODE.

     CDS IS REQUIRED FOR THIS PROGRAM BECAUSE IT USES A RECURSIVE
     ALGORITHM TO SEARCH EACH SOURCE LINE.
```

KALAHA M017

AN OLD AFRICAN GAME

```
Contribution Name..........: KALAHA
   Title...................: An old African game
   File Names..............:00. Rename Transfer File
                           :01. Kalaha.sbmt      - submission file
                           :02. Kalaha.hlp       - help/doc file
                           :03. Kalaha.pas       - source file
                           :04. Kalaha.rel       - reloc  file
                           :05. Kalaha.lod       - load   file
```

```
   Operating System(s).....: None
   Language(s).............: Pascal 1000
   Keywords................: 1. Games
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.........: Claude Schmit
               Company.....: General Motors
               Street......: route de Luxembourg
               City........: Bascharage
               State.......:
               Country.....: Grand-Duche de Luxembourg
               Zip Code....: 4940
               Phone Number..: (352) 5018-356
               Telex.......:
Contribution Abstract......: This program plays an old African game called
   Kalaha. The program uses the powerful recursion algorithm with alpha-beta
   pruning. The source is short, the rules of the game are simple, but you
   will have a hard time beating the computer with a difficulty level
   greater than 3. The source is in fully-portable Pascal, so you can port
   it to an IBM/PC (or compatible) or any other computer with a Pascal
   compiler. The program needs display enhancement; I left it like that
   for portability reasons.

Additional Documentation....: See Kalaha.hlp for the rules explanations.
```

TIME **M018**

TIME UTILITY AS IN (HOPEFULLY) UNIX

```
Contribution Name..........:    Time
   Title...................:    Time utility as in (hopefully) UNIX
   File Names..............:00. Rename Transfer File
                          :01. Time.sbmt
                          :02. Time.ftn
                          :03. Time.rel
                          :04. Time.lod
                          :05. Time.make
                          :06. Time.help
   Operating System(s).....:
   Language(s).............: FTN7x
   Keywords................: 1. TIME
                          : 2. DATE
                          : 3. UNIX
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:   Dan Felman
               Company.....:   HP
               Street......:
               City........:   Rockville
               State.......:   MD
               Country.....:   USA
               Zip Code....:
               Phone Number..:
               Telex.......:
Contribution Abstract......:
Additional Documentation....:

The time program is modeled after UNIX's version and follows the same
convention for reporting. TIME will report wall clock time as well as
cpu usage. What is not reported is rte usage by the program being timed,
since it is impossible to determine from the system.

Usage: [ru,] time, prog [,arguments]
```

CUT **M019**

LINE-RANGE CUT-FILE UTILITY

```
Contribution Name..........:  Cut
   Title...................:  Line-range cut-file utility
   File Names..............:00. Rename Transfer File
                          :01. Cut.sbmt
                          :02. Cut.ftn
                          :03. Cut.rel
                          :04. Cut.lod
                          :05. Cut.make
                          :06. Cut.help
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Unix
                          : 2. Editor
                          : 3. Text
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:    Dan Felman
               Company.....:    HP
               Street......:
               City........:    Rockville
               State.......:    MD
               Country.....:    USA
               Zip Code....:
               Phone Number..:
               Telex.......:
Contribution Abstract......:
Additional Documentation....:

CUT is a utility modeled after the similarly named program available
under UNIX.

CUT allows you to cut out certain columns out of lines of a file[s]. Ranges
may be given in various formats and must follow the '-c' option without
spaces. Commas must separate each additional range given, and must come
before the file name is given.

Output redirection is supported. As in Unix, use the '>' character preceding
a file name or a device lu. The default is to output to lu 1.

usage:   cut -c[list] fileMask [> file/lu]
```

DISC UTILITIES FOR RTE-A, VERSION 5.0. NON CDS

Contribution Name.....: ADISCU
Title.....: Disc utilities for RTE-A, version 5.0. Non CDS
File Names.....:00. Rename Transfer File [See Note 1.]
:01. ADISCU.SBMT - This file
:02. MAP.FTN - Bitmap display
:03. MAP.REL
:04. MAP.LOD
:05. MAP.MAKE
:06. DIDI.FTN - Single DIrectory DIsplay
:07. DIDI.REL
:08. DIDI.LOD
:09. DIDI.MAKE
:10. UNPUNLEVELDIR.FTN - Unpurge an N-level subdi
:11. UNPUNLEVELDIR.REL
:12. UNPUSUBDIR.FTN
:13. UNPUSUBDIR.REL
:14. UNPUSUBDIR.LOD
:15. UNPUSUBDIR.MAKE
:16. UNPU2LEVELDIR.FTN
:17. UNPU2LEVELDIR.REL
:18. UNPU2LEVELDIR.LOD
:19. UNPU2LEVELDIR.MAKE
:20. PUNLEVELDIR.FTN - Purge an N-level subdi
:21. PUNLEVELDIR.REL
:22. PU2LEVELDIR.FTN
:23. PU2LEVELDIR.REL
:24. PU2LEVELDIR.LOD
:25. PU2LEVELDIR.MAKE
:26. CSLMAKEDIR.FTN - Converts CSL tape
:27. CSLMAKEDIR.REL
:28. CSLMAKEDIR.LOD
:29. CSLMAKEDIR.MAKE
:30. DISCMAPS.FTN - Interprets disc DVT's
:31. DISCMAPS.REL
:32. DISCMAPS.LOD
:33. DISCMAPS.MAKE
:34. X.CMD - An N-level test subdir
:35. ALL.MAKE
:36. FOLOGO.CMD - FOrtran LOad and GO
:37. LOADRUNALL.CMD - Command it & stand back
:38. ADISCU.LOD - Link command file.
:39. ADISCU.DOC - Documentation ASCII file
Operating System.....: RTE-A A.85 and up including 5.0. Perhaps -6
Language(s).....: FTN7X
External Support Req'd....: None
If Re-submission, Reason..: Tested to 430k blocks. Operating system change forced algorithm changes. Cosmetic changes.
Keywords.....:01. SYSTEM
:02. SYSTEM_TABLES
:03. DISC

Contributor's Name.....: Dan Khoushy
Company.....: Marine Computing Ltd.
Street.....: 83, Marylebone High Street
City.....: London
State.....:
Country.....: United Kingdom
Zip Code.....: W1
Phone Number...: (01) 486 9590

Program Abstract.....:

This contribution consists of various disc utilities hitherto unsupported by HP. The fact that various RTE commands traverse the directory-tree in the wrong direction or not at all hinders some fast and furious disc management actions. Basically the purging program uses only FMP routines. The unpurging program uses absolute disc read/write orders to unpurge subdirectories, and FMPUNPURGE to unpurge files. Unpurging subdirectories is not supported by HP and in any case it is a very drastic operation. The purging/unpurging should only be undertaken by people who know what they are doing. MAP and DIDI are support programs to display the results of purging and unpurging, but are also very useful on their own. CSLMAKEDIR is a program that takes a CSL tape TF/FST'ed into a global directory and creates subdirectories named Jxxx where J stands for the tape letter and xxx for the contribution number. It then re-names all the file in accordance with the Xxxx00 file in each subdirectory. See the writeup for DISCMAPS in the Jan/Feb 1986 issue of TC INTERFACE.

X.CMD creates a global directory /X and fills it with various files and 10 levels of subdirectories. This /X directory then provides exercising and demonstrating opportunities.

FOLOGO.CMD compiles, loads and runs a program and LOADRUNALL.CMD will do it for all the programs and X.CMD as well.

A word of apology: The somewhat verbose names were chosen to eliminate an inadvertent initiation of drastic actions. You can always rename the files. Also, in order to make all units stand alone, each contains all required subroutines, at the expense of some duplication.

A word of warning: Read the usual HP notices of disclaimer to be found on the back side of the title page to all their manuals. As all these programs go beyond the designs of HP you are really on your own when using them. I assume no responsibility whatsoever for any damage that may ensue- direct, consequential or of any other kind. You are entirely responsible!

After having thus frightened the potential user, I hasten to add that no damage was ever done by these programs in my installation. Read ADISCU.DOC documentation, and follow the instructions given there.

This is a re-submission of the CSL2625 contribution which was limited by testing to a disc size of 128k with an allocation unit of 1. The current contribution was tested with an allocation unit of 4, and hence is suitable for all sizes. There are also several cosmetic changes of the displays.

Modified CSLMAKEDIR xxx00 filenames to xxxx00.CMD to conform to any PATH's.

D5.0 forced some changes, mainly caused by undocumented features of D.RTR.

PUNLEVELDIR is a new program, removed from VDISCU, and not requiring VC+.
UNPUNLEVELDIR is a new program, as above. Both algorithms are new.

For D5.0 your D.RTR should have an EMA size of less than 41 pages.

Additional Documentation....: ADISCU.DOC.

FINDPAT — M021

FAST PATTERN FINDER VERSION 5.1

```
Contribution Name...........:  FINDPAT
   Title....................:  Fast pattern finder version 5.1.
   File Names..............:00. Rename Transfer File
                           :01. FINDPAT.SBMT
                           :02. FINDPAT.FTN    Source file
                           :03. FINDPAT.REL
                           :04. FINDPAT.HELP   Help file
                           :05. FINDPAT.MAKE
                           :06. FINDPAT.DOC    Documentation
                           :07. IGETC.MAC      From HSLIB.LIB
                           :08. IGETC.REL
                           :09. FINDPAT.CMD    Compile and link
                           :10. FINDPAT.LOD    Link file
                           :11. F20.DAT        Output (sample speed file)
                           :12. R20.DAT        Raw file reading speed file
   Operating System.........:  RTE-A (including 5.0) and perhaps 6.
   Language(s)..............:  FTN7X and MACRO.
   External Support Req'd...:  None
   If Re-submission, Reason.:
   Keywords.................:01. TOOLS
                           :02. SEARCH
                           :03. FILTER
Contributor's Name..........:  Dan Khoushy
              Company.......:  Marine Computing Ltd.
              Street........:  83, Marylebone High Street
              City..........:  London
              State.........:
              Country.......:  United Kingdom
              Zip Code......:  W1
              Phone Number..:  (01) 486 9590
Program Abstract............:
```

FINDPAT is a very fast pattern finder. It usually runs at about 80% of the file raw reading speed. It easily achieves speeds of more then 125,000 bytes per second on the A900 when running as the sole job. This makes it very much faster then previous pattern finders contributed to CSL.

The algorithm used is the Boyer-Moore one, to be found in subroutine BOYER. This algorithm is one of those pearls that give great pleasure to programmers accustomed, at best, to NlogN speeds. It actually performs at close to M/N speeds, where M is the record size and N is the pattern size.

```
 Usage: FINDPAT, 'PATTERN', [FILEMASK], [OPTIONS], [LIST FILE/LU]
   or : XQ,FINDPAT,'PATTERN',[FILEMASK],Q[+ other OPTIONS],[LIST FILE/LU]

        OPTIONS:
                  A:  List matching lines and count
                  C:  List count of matching lines only
                  F:  List filenames only (count=1)
                  I:  Casefold lower case letters - implies A
                  M:  Count multimatches on same line - implies A
                  Q:  Quiet - no listing to terminal - implies A
                  T:  List lines matched in total only - implies A
                  Y:  Directory files allowed with text files - implies A
                  Z:  Non-text files allowed - implies Y
        DEFAULTS:
                  OPTIONS  :  F - Filename only
                  MASK     :  @
                  LIST     :  Terminal only
                  LIST FILE:  FINDPAT.DAT if Q option
```

The output includes the number of files matching the mask, as well as the number of records and bytes read. So by specifying a non-existent pattern one gets just these statistics.

Additional Documentation....: DOC and HELP files.

PATCHBITMAP — M022

CHANGE SENSE OF BITS IN DISC LU BITMAPS

```
Contribution Name...........:  PATCHBITMAP
   Title....................:  Change sense of bits in disc LU bitmaps
                              sector-allocation, version 5.1
   File Names..............:00. Rename Transfer File [by CSL]
                           :01. PATCHBITMAP.SBMT     - This file
                           :02. PATCHBITMAP.FTN      - Source file
                           :03. PATCHBITMAP.REL
                           :04. PATCHBITMAP.CMD      - Compile and link
                           :05. PATCHBITMAP.LOD      - Link command file
                           :06. PATCHBITMAP.MAKE
   Operating System(s).....:  RTE-A D4.0 and up (including 5.0). Perhaps -6
   Language(s).............:  FTN7X
   External Support Req'd...:  None
   If Re-submission, Reason.:  Tested to 430k blocks. Cosmetic changes.
                               Tested on discs with various sectors/track.
   Keywords................:01. SYSTEM
                           :02. SYSTEM TABLES
Contributor's Name..........:  Dan Khoushy
              Company.......:  Marine Computing Ltd.
              Street........:  83, Marylebone High Street
              City..........:  London
              State.........:
              Country.......:  United Kingdom
              Zip Code......:  W1
              Phone Number..:  (01) 486 9590
Contribution Abstract.......:
```

```
          Usage: PATCHBITMAP,DISCLU,LOCATION,SIZE,LISTLU.
```

This contribution consists of a utility hitherto unsupported by HP. It may happen that a bitmap is corrupted to show free area as occupied or occupied area as free. Such a corruption will normally be discovered by FVERI. The usual method of recovery is to TF off the disc LU, reinitialize and TF back, tedious at best.

This program will change the sense of a contiguous set of bits on DISCLU starting at LOCATION for SIZE bits. On sets, (and the whole set has to be on) will be turned off and vice-versa.

Recover from wrongly specified parameters by running the program again with the same wrong parameters.

This program may be a very destructive time bomb type weapon in the hands of a careless user, therefore

```
*****************************************************
* Do not keep it on disc !   Keep it off-line ! *
*****************************************************
```

But when you FST this program back on, do not use the damaged LU since if the damage is showing occupied space as free, you may write over useful data.

A word of apology: The somewhat verbose name was chosen to eliminate an inadvertent initiation of a drastic action. You can always rename the file.

A word of warning: Read the usual HP notices of disclaimer to be found on the back side of the title page to all their manuals. As this program goes beyond the designs of HP you are really on your own when using it. I assume no responsibility whatsoever for any damage that may ensue- direct, consequential or of any other kind. You are entirely responsible!

After having thus frightened the potential user, I hasten to add that no damage was ever done by this program in my installations.

For example, the command PATCHBITMAP,17,25000,10 results in the following:

```
 Total number of tracks      : 932
 Total number of blocks      : 44736
 Blocks per allocation unit  : 1
 Volume Header address at    : 44688
 Bitmap        address at    : 0
 Global Dirs.  address at    : 22
```

BITMAP BEFORE MODIFICATION

```
Block# +0        10        20        30        40        50        60
 24960 ***************************************      ***************
```

BITMAP AFTER MODIFICATION

```
Block# +0        10        20        30        40        50        60
 24960 ***************************************************************
```

NOTE: * equals the allocation unit. is the end of the LU

This is a re-submission of the CSL2730 contribution which was limited by testing to a disc size of 128k with an allocation unit of 1. The current contribution was tested with an allocation unit of 4, and hence is suitable for all sizes. There are also several cosmetic changes of the displays. Also testing was carried out on various sectors/track configurations.
Additional Documentation....: None.

VDISCU M023

DISC UTILITIES FOR RTE-A VC+ VERSION 5.0

```
Contribution Name...........:  VDISCU
   Title....................:  Disc utilities for RTE-A VC+ version 5.0.
   File Names...............:00. Rename Transfer File [See Note 1.]
                            :01. VDISCU.SBMT        - This file
                            :02. DIAL.FTN           - N-level DIrectory
                            :03. DIAL.REL
                            :04. DIAL.LOD             display (ALl)
                            :05. UNPUNLEVELDIR.FTN  - Unpurge N-level subdir
                            :06. UNPUNLEVELDIR.REL
                            :07. UNPUNLEVELDIR.LOD
                            :08. PUNLEVELDIR.FTN    - Purge N-level subdir
                            :09. PUNLEVELDIR.REL
                            :10. PUNLEVELDIR.LOD
                            :11. Y.CMD              - A 10-level test subdir
                            :12. FOLOGO.CMD         - FOrtran LOad and GO
                            :13. LOADRUNALL.CMD     - Command it & stand back
                            :14. VDISCU.DOC
                            :15. VDISCU.MAKE
   Operating System.........: RTE-A A.85 and up including 5.0. VC+ only
   Language(s)..............: FTN7X
   If Re-submission, Reason.: Tested to 430k blocks. Operating system changes
                              forced algorithm changes. Cosmetic changes.
   External Support Req'd...: None
   Keywords.................:01. SYSTEM
                            :02. SYSTEM_TABLES
                            :03. DISC
                            :04. MAP
Contributor's Name..........:  Dan Khoushy
              Company.......:  Marine Computing Ltd.
              Street........:  83, Marylebone High Street
              City..........:  London
              State.........:
              Country.......:  United Kingdom
              Zip Code......:  W1
              Phone Number..:  (01) 486 9590
Program Abstract............:
```

This contribution consists of various disc utilities hitherto unsupported by HP. The fact that various RTE commands traverse the directory-tree in the wrong direction or not at all hinders some fast and furious disc management actions. Basically the purging program uses only FMP routines. The unpurging program uses absolute disc read/write orders to unpurge subdirectories, and FMPUNPURGE to unpurge files. Unpurging subdirectories is not supported by HP and in any case it is a very drastic operation. The purging/unpurging should only be undertaken by people who know what they are doing. MAP and DIAL are support programs to display the results of purging and unpurging, but are also very useful on their own. MAP is to be found in contribution ADISCU.

VC+ is required since DIAL is recursive. The power and the economy of

programming effort afforded by recursion as available with CDS is well worth the ownership of VC+. The recursion was removed from the other programs, and they are copies of those in ADISCU, repeated here for historical reasons.

Y.CMD creates a global directory /Y and fills it with various files and ten levels of subdirectories. This /Y directory then provides exercising and demonstrating opportunities.

FOLOGO.CMD compiles, loads and runs a program and LOADRUNALL.CMD will do it for all the programs and Y.CMD as well.

A word of apology: The somewhat verbose names were chosen to eliminate an inadvertent initiation of drastic actions. You can always rename the files. Also, in order to make all units stand alone, each contains all required subroutines, at the expense of some duplication.

A word of warning: Read the usual HP notices of disclaimer to be found on the back side of the title page to all their manuals. As all these programs go beyond the designs of HP you are really on your own when using them. I assume no responsibility whatsoever for any damage that may ensue- direct, consequential or of any other kind. You are entirely responsible!

After having thus frightened the potential user, I hasten to add that no damage was ever done by these programs in my installation. Read VDISCU.DOC documentation, and follow the instructions given there.

This is a re-submission of the CSL2625 contribution which was limited by testing to a disc size of 128k with an allocation unit of 1. The current contribution was tested with an allocation unit of 4, and hence is suitable for all sizes. There are also several cosmetic changes of the displays.

D5.0 forced some changes, mainly caused by undocumented features of D.RTR.

PUNLEVELDIR is a new program, not requiring VC+.
UNPUNLEVELDIR is a new program, as above. Both algorithms are new.

For D5.0 your D.RTR should have an EMA size of less than 41 pages.

Additional Documentation....: VDISCU.DOC.

CHANGEPAT M024

FAST PATTERN EXCHANGER VERSION 5.0

```
Contribution Name...........:  CHANGEPAT
   Title....................:  Fast pattern exchanger version 5.0.
   File Names..............:00. Rename Transfer File [by CSL]
                           :01. CHANGEPAT.SBMT  - This file.
                           :02. CHANGEPAT.FTN   - The source.
                           :03. CHANGEPAT.HELP  - Help file.
                           :04. CHANGEPAT.DOC   - Write-up file.
                           :05. IGETC.MAC       - From HAYSTACK.LIB.
                           :06. CHANGEPAT.CMD   - Compile and link.
                           :07. CHANGEPAT.LOD   - Link command file.
   Operating System.........:  RTE-A (including 5.0) and perhaps 6.
   Language(s)..............:  FTN7X and MACRO.
   External Support Req'd...:  None
   If Re-submission, Reason.:
   Keywords.................:01. TOOLS
                           :02. FILTER
                           :03. SEARCH
Contributor's Name..........:  Dan Khoushy
              Company.......:  Marine Computing Ltd.
              Street........:  83, Marylebone High Street
              City..........:  London
              State.........:
              Country.......:  United Kingdom
              Zip Code......:  W1
              Phone Number..:  (01) 486 9590
Program Abstract............:
```

CHANGEPAT is a fast text pattern exchanger built along the same lines as the companion pattern finder - FINDPAT. It first uses a fast searching algorithm to find the files containing the pattern, and then backtracks to perform the exchanges, with the option to omit the first searching step.

The search algorithm used is the Boyer-Moore one, to be found in subroutine BOYER. It is used both in the first step to locate the file, and then to locate the pattern within the file. This algorithm is one of those pearls that give great pleasure to programmers accustomed, at best, to NlogN speeds. It actually performs at close to M/N speeds, where M is the record size and N is the pattern size. (See FINDPAT.DOC)

```
  Usage: CHANGEPAT,'=OLDPAT','>NEWPAT',FILEMASK,[OPTIONS],[LIST FILE/LU]
         Note optional 's and required = > for patterns.
         Use ^ for commas within patterns.
         OPTIONS:
                  A:  List exchanges and count
                  C:  List count of exchanges only
                  D:  Directly start exchange operation - implies A
                  I:  Casefold lower case letters - implies A
                  Q:  Quiet - no listing to terminal - implies A
         DEFAULTS:
                     OPTIONS  :  List exchanges, no Direct.
                                 Usually faster since the
                                 write operation will only
                                 proceed for files with at
                                 least one match at the
                                 expense of backtracking.
                     LIST     :  Terminal only
                     LIST FILE:  CHANGEPAT.DAT IF Q option
```

A word of warning: Read the usual HP notices of disclaimer to be found on the back side of the title page to all their manuals. As this program goes beyond the designs of HP you are really on your own when using it. I assume no responsibility whatsoever for any damage that may ensue - direct, consequential or of any other kind. You are entirely responsible!

Additional Documentation....: DOC and HELP files.

CHANGERPL M025

CHANGING RPL'S FOR PROGRAM TRANSFERS VERSION 5.1

```
Contribution Name.....:CHANGERPL
   Title..............:CHANGING RPL's for PROGRAM TRANSFERS version 5.1
   File Names.........:00. Rename Transfer File [by CSL]
                      :01. CHANGERPL.SBMT    - This file
                      :02. CHANGERPL.FTN     - Source file
                      :03. CHANGERPL.LOD     - Link command file
                      :04. Y.CMD             - A 10-level test dir.
                      :05. FOLOGO.CMD        - FOrtran LOad and GO
                      :06. LOADRUN.CMD       - Command it & stand back
                      :07. TEST.REL          - A .REL file for testing
                      :08. TEST.LOD          - A Link file for above
                      :09. FUNNY.SNP         - A Snap file for above
   Operating System...:  RTE-A A.85 and up (including 5.0). Perhaps -6
   Language(s)........:  FTN7X
   External Support Req'd...:  None
   If Re-submission, Reason.:Operating system update. Improved selectivity.
                             Removed recursion.
   Keywords...........:01. SYSTEM
Contributor's Name....:  Dan Khoushy
            Company...:  Marine Computing Ltd.
            Street....:  83, Marylebone High Street
            City......:  London
            State.....:
            Country...:  United Kingdom
            Zip Code..:  W1
            Phone Number..:  (01) 486 9590
Program Abstract......:
```

This contribution consists of a utility hitherto unsupported by HP. The fact that various RTE commands traverse the directory-tree in the wrong direction or not at all hinders some fast and furious disc management actions. I develop programs on any A-series machines for running on any of the others. RTE-A has the feature of sometimes refusing to run programs on a machine having a different SNAP file. After a first try the machine reports "changed RPL checksum" and quits. The second try will usually succeed. Sometimes you have to relink the program on a target machine, but this is heralded by a message "illegal program file". Any way, the first type of refusal is bad enough, and seems unnecessary, especially when you have a long chain of fathers running children and grandchildren. The method used by me is to have all the new programs and sources in a global directory called /UPDATE which contains a command file whose first command is CHANGERPL and the rest distribute the programs and the sources etc. to their respective directories. Thus CHANGERPL defaults to trying the @.RUN files in /UPDATE but will go to a directory supplied in the runstring, and all the subdirectories as well. RPL will be changed on all type 6 files, even if they do not have the .RUN extension.

Y.CMD creates a global directory /Y and fills it with various files and various levels of subdirectories. This /Y directory then provides exercising and demonstrating opportunities.

FOLOGO.CMD compiles, loads and runs a program and LOADRUN.CMD will invoke it and exercise the program as well by invoking also the Y.CMD.

TEST.RUN is a program linked with a funny SNAP file on an A600+, thus will force an RPL change. This is done automatically by the Y.CMD.

It may be that FUNNY.SNP will like your system. Then you must use one not appropriate to your machine to get the full demonstration. Otherwise, and in case you loaded TEST.RUN inadvertently, CHANGERPL will still go through the motions, but without issuing the "changing RPL" message.

A word of apology: The somewhat verbose names were chosen to eliminate an inadvertent initiation of drastic actions. You can always rename the files. Also, in order to make all units stand alone, each contains all required subroutines, at the expense of some duplication.

A word of warning: Read the usual HP notices of disclaimer to be found on the back side of the title page to all their manuals. As all these programs go beyond the designs of HP you are really on your own when using them. I assume no responsibility whatsoever for any damage that may ensue- direct, consequential or of any other kind. You are entirely responsible!

DIRTREE M026

FAST DIRECTORY TREE LISTER VERSION 5.0

```
Contribution Name.....:  DIRTREE
   Title..............:  Fast Directory Tree Lister version 5.0.
   File Names.........:00. Rename Transfer File [by CSL]
                      :01. DIRTREE.SBMT  - This file.
                      :02. DIRTREE.FTN   - The source.
                      :03. DIRTREE.CMD   - Compile and link.
                      :04. DIRTREE.LOD   - Link command file.
   Operating System...:  RTE-A (including 5.0) and perhaps 6.
   Language(s)........:  FTN7X.
   External Support Req'd...:  None
   If Re-submission, Reason.:
   Keywords...........:01. DIRECTORY
Contributor's Name....:  Dan Khoushy
            Company...:  Marine Computing Ltd.
            Street....:  83, Marylebone High Street
            City......:  London
            State.....:
            Country...:  United Kingdom
            Zip Code..:  W1
            Phone Number..:  (01) 486 9590

Program Abstract......:
 Invoke DIRTREE.CMD to compile and link DIRTREE.FTN.

 Usage: DIRTREE [DISCLU OR /DIR[/SUBDIR.DIR] OR ALL] [LISTLU OR FILE] [F]
        Use the F option to invoke FREES at the end of DIRTREE for DISCLU's

 Example: DIRTREE 16,,F gives:
```

```
 LU            Directory or Subdirectory                Files Blocks Cumltiv
--- ---------------------------------------------------- ----- ------ -------
 16 /SYSTEM                                                 58   3158    3158
 16 /CATALOGS                                                6    386    3544
 16 /EMERPROG                                               48   8436   11980
 16 /USERS/HELP                                             19    240   12220
 16 /USERS                                                  50    542   12762
 16 /HELP/ERROR                                              1    566   13328
 16 /HELP                                                  150   1426   14754
 16 VOLUME DIRECTORY                                         5     16   14770
 16                              TOTAL in Data Space                    14770
 16  RESERVED + HEADER                                             1537   16307
 16  BITMAP                                                          10   16317

Volume size   19200. Free blocks    2883. % Free 15.02    Allocation units 1

NOTE: Blocks report occupied space. Thus a file of size 1 where
the allocation unit is 4 will occupy 4 blocks.

End Directory Tree Listing - Sat Apr 16, 1988 11:55:12 am

LU   Total     Resvd.     Free    %free Max Free %max *
---+---------+---------+---------+-----+---------+------
 16     19200      1536      2883   15      2836   98

 (* largest free space as % of total free space)
```

HEAPSORT M027

HEAPSORT AND INSERTIONSORT VERSION 5.2

```
Contribution Name...........:  HEAPSORT
   Title....................:  Heapsort and Insertionsort version 5.2.
   File Names..............:00. Rename Transfer File [by CSL]
                           :01. HEAPSORT.SBMT     - This file
                           :02. LONGHEAPSORT.FTN  - Including heap routines
                           :03. HEAPSORT.FTN      - A combined fast version
                           :04. HEAPSORT.DOC      - Some theory and timing.
   Operating system(s).....:  All
   Language(s).............:  FTN7X
   External Support Req'd...:  None
   If Re-submission, Reason.: Corrected a bug in calling Insertion Sort.
   Keywords................:01. SORT
Contributor's Name..........:  Dan Khoushy
              Company.......:  Marine Computing Ltd.
              Street........:  83, Marylebone High Street
              City..........:  London
              State.........:
              Country.......:  United Kingdom
              Zip Code......:  W1
              Phone Number..:  (01) 486 9590
Program Abstract............:
```

Workhorse sorting subroutines are very often required in real-life programming situations. There is usually a Hobson's choice between a larger sorting package or writing an ad-hoc subroutine which gets the job done albeit inefficiently. The larger sorting package may be extravagant in their memory requirement or not particularly suitable for the job at hand.

The LONGHEAPSORT set of three subroutines are good candidates to join the library in the workhorse role. The familiar Insertion sort routine is fast for small vectors and very fast for almost-sorted vectors of any size. The Heap sort routine is of time complexity N*LOG(N) and hence very fast for large vectors. Quicksort may be faster by a factor of 2 under some situations but may have a pathological behavior which will make it extremely slow under some other situations.

About 10% time may be gained by combining the heap subroutines thus avoiding the CALL overheads. Omitting CDS will speed matters up by a further 20%.

The faster combined version of the subroutine appears as HEAPSORT.FTN.

```
     Usage: CALL HEAPSORT(TABLE,TABLESIZE)
```

This is a re-submission of the CSL2730 contribution, to correct a bug in the call to Insertionsort.

Additional Documentation....: See HEAPSORT.DOC

ECALC M028

EXPRESSION CALCULATOR

```
Contribution Name...........: Ecalc
   Title....................: Expression Calculator
   File Names..............: 00. Rename Transfer File
                           : 01. Ecalc.sbmt  - Submission file
                           : 02. Ecalc.ftn   - Source file
                           : 03. Ecalc.rel   - Relocatable file
                           : 04. Ecalc.help  - Help file
                           : 05. Ecalc.lod
                           : 06. Ecalc.make
   Operating System(s).....: RTE-6/VM
   Language(s).............: FTN77
   Keywords................: 1. Calculator
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name..........: Darryl C. Bryk
              Company.......: U.S. Army TACOM
              Street........: AMSTA-RSA
              City..........: Warren
              State.........: MI
              Country.......: U.S.A.
              Zip Code......: 48090
              Phone Number..: (313) 574-7752
              Telex.........:
Contribution Abstract.......: This program calculates the result of
              an interactively entered arithmetic expression.  The
              operands and operators are stored in separate stacks and
```

popped off as needed to evaluate the expression according to the usual operator precedence rules. Parentheses may be used to alter the precedence rules. For example, an expression such as:

```
2 * (sin(rad(90.0/2.)) - 3.2**3.5) + 1,000.0
```

may be entered as shown and the result is calculated. The number of decimal places that are shown in the result is the same as the greatest that is given in the expression or to at least one decimal place, whichever is greater. This program may easily be ported to other machines with Fortran by changing the calls to FTN7X library subroutines to their equivalents on that machine. Also, additional user defined functions may easily be added. This edition of Ecalc enables access to most of the functions in the FTN7X library.

Additional Documentation....: Ecalc.help is a text file that contains all of Ecalc's function names and their usage and is listed from Ecalc by typing a '?' (question mark). Copy Ecalc.help to the global directory /Help/ with the new name Ecalc (i.e. do: co ecalc.help /help/ecalc) in CI. (FMGR users will have to modify the help filename in the program in order for it to be listed when one types '?' in Ecalc.)

DATEX — M029

UNIVERSAL DATE FORMATTER

```
Contribution Name...........:DATEX
   Title....................:Universal Date Formatter
   File Names...............:00. Rename Transfer File
                           :01. DATEX.SBMT
                           :02. DATEX.FTN
                           :03. USRDX.FTN
   Operating system(s).....:RTE-A
   Uses hierarchical files?.:no
   Language(s).............:Fortran 77
   Keywords................: 1. time
                           : 2. date
                           : 3. strings
   External Support Req'd...:No
   If Re-submission, Reason.:
Contributor's Name..........:David Kaplan
               Company.....:C&L Systems
               Street......:Surrey House,
                          :Surrey Street
               City........:Croydon
               State.......:Surrey
               Country.....:England
               Zip Code....:CR9 1HX
               Phone Number..:(44)-1-760-0770
 Program Abstract...........:DATEX allows a date or time string to be
generated in any user specified format. Not only will it produce the
current date/time, but any date/time offset from the present into either
the future or past.
 Additional Documentation....: When scheduled DATEX is passed a date
format string and an offset from the present. It returns in a return string
($RETURN_S) the specified date/time in the required format.
```

RPOK — M030

RPOK ROUTINE FOR CONTRIBUTION H022

```
Contribution Name...........: RPOK
   Title....................: RPOK routine for contribution H022
   File Names...............:00. Rename Transfer File
                           :01. rpok.sbmt
                           :02. rpok.mac
                           :03. rpok.rel
   Operating System(s).....: RTE-6
   Language(s).............: Macro
   Keywords................: 1. Assembler
                           : 2. Search
                           : 3. Sort
   External Support Req'd...:
   If Re-submission, Reason.: missing from original contribution
Contributor's Name..........: Don Pottinger
               Company.....: Hewlett-Packard
               Street......: 11000 Wolfe Rd.
               City........: Cupertino
               State.......: CA
               Country.....: USA
               Zip Code....: 95014
               Phone Number..: (408) 257-7000
Contribution Abstract.......:

  Required for DLX (CSL/1000 release 2340 contribution #H022) and missing
from the original contribution. See additional documentation for DLX.
```

EMACOPY — M031

COPY INTEGER*2 DATA IN/OUT/WITHIN EMA FAST

```
Contribution Name...........: EMACOPY
   Title....................: Copy Integer*2 Data In/Out/Within EMA Fast
   File Names...............: 00. Rename Transfer File
                           : 01. EMACOPY.SBMT
                           : 02. EMACOPY_CDS.MAC
                           : 03. EMACOPY_CDS.LIB
                           : 04. EMACOPY.MAC
                           : 05. EMACOPY.LIB
                           : 06. EMACOPY.OV      (Slides for talk)
   Operating System.........: RTE-A
   Language(s)..............: FTN7X
   Keywords.................: EMA/VMA
                           : Copy
```

```
   External Support Req'd...:
   If Re-submission, Reason.: Added non-CDS version
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
             Telex Number..: 650 211 1023 (WUI)
Contribution Abstract.......:
```

The EMACOPY subroutine can move data into, out of, and within EMA at speeds up to 50 times faster than normal Fortran Do-Loops.

It is called as follows:

```
$ALIAS EMACOPY, EMA        (EMACOPY expects 32-bit parameter addresses)
DIMENSION FROM(), TO()     (May be INT*2 or any other type except CHAR)
INTEGER*4 WORDS
-
-
CALL EMACOPY (FROM(I), TO(J), WORDS)
```

FROM and TO may be in EMA, local memory, or COMMON. EMACOPY automatically figures out where they are.

WORDS is the number of words to be copied from FROM to TO. It must not be in EMA.

EMACOPY maps FROM and TO into the VSEG (if in EMA) and then uses the hardware/firmware MVW instruction to perform the copy. This instruction exists in all HP1000 systems, and is at least as fast as the Vector Instruction Set instructions for this copy function. Thus an A400 CPU performs as if it has VIS, at least for copying data.

On an A400 the CDS version beats Fortran Do-Loops at any number of WORDS over 5. The non-CDS version should be a bit better than that.

Both CDS and non-CDS versions are supplied. The non-CDS version might even run on RTE-6/VM.

MAKETAPES M032

MANUFACTURE REEL-TO-REEL TAPES IN VOLUME

```
Contribution Name......(16).: MAKETAPES
   Title.............(64).: Manufacture Reel-to-Reel Tapes in Volume
   File Names..............: 00. Rename Transfer File
                           : 01. MAKETAPES.SBMT
                           : 02. MAKETAPES.FTN
                           : 03. MAKETAPES.REL
                           : 04. MAKETAPES.LOD
                           : 05. TAPETODISK.FTN
                           : 06. TAPETODISK.REL
                           : 07. TAPETODISK.LOD
                           : 08. MAKETAPES.MAKE
   Operating System(s).....: RTE-A
   Uses hierarchical files?.: Yes
   Language(s).............: FTN7X
   Keywords................: Copy
                           : Magnetic tape
   External Support Req'd...: Mag Tape Drive
   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
             Zip Code......: 55042
             Country.......: USA
             Phone Number..: 612/770-3728
             Telex.........: 650 211 1023 (WUI)
Program Abstract...........:
```

MAKETAPES was developed for INTEREX to assist in producing 1600-BPI and 800-BPI Best-Of tapes. The TF format was chosen for that CSL release, resulting in very slow tape production. FST could not be used because not all CSL members have FST. MAKETAPES writes TF-format tapes at the full speed of the tape drive, whatever that is. In fact, it should be able to write any format (TAR, LIF, whatever) at the same speed. It is actually being used to make HP3000 Best-Of tapes on the HP1000!

It works as follows:

1. An original tape is written in TF (or whatever) format, and verified.

2. The TAPETODISK program is used to read that tape to disk as a single file as large as the data on the tape. Each tape record is copied to an identical disk record (up to 16k characters in length), and an EOF on tape is written as a zero-length disk record.

3. One or more copies of MAKETAPES are scheduled to write the tapes from the disk file at high speed. Several copies can go at full speed at once. When a tape is finished, MAKETAPES announces that fact, waits for the drive to be unloaded and reloaded, then restarts automatically. One operator can be hard put to keep up with two or three tape drives, depending on the amount of data on the tape.

MAKETAPES does keep track of all errors, and aborts a write if any error is discovered. All errors are reported.

MAKETAPES can also be scheduled in a write-once (or write-counted) mode to make one or a few tapes at high speed as needs require. Perfect for a software supplier.

What remains to be done? It doesn't work on CS/80 tapes yet. I may get around to that some day, but please let me know if YOU do, because then I won't have to. Can it be done as transparently for CS/80 as it is for reel-to-reel? Only the shadow knows . . . .

TIMER M033

TIME PROCESSES

```
Contribution Name......(16).: TIMER
   Title..............(64).: Time Processes
   File Names..............: 00. Rename Transfer File
                           : 01. TIMER.SBMT
                           : 02. TIMER.FTN
                           : 03. TIMER.REL
   Operating System(s).....: RTE-A
   Uses hierarchical files?.:
   Language(s).............: FTN7X
   Keywords................: Time
                           : Reports
   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
            Zip Code.......: 55042
            Country........: USA
            Phone Number...: 612/770-3728
            Telex..........: 650 211 1023 (WUI)
Program Abstract...........:

TIMER can be used to display the time required for any process capable
of invoking TIMER at the beginning and the end.  These include CI transfer
files and QUERY XEQ files, for example.  It is invoked in three ways:
1. TIMER ON starts TIMER running and displays time values of 0.
2. TIMER (no parameter) displays the current elapsed time since TIMER ON.
3. TIMER OF generates a final display and deletes TIMER's ID segment.

Between runs, TIMER is terminated saving resources.
The source document contains additional detail about its use.
```

NULLJOB M034

DISPLAY TOTAL PERCENTAGE OF CPU UTILIZATION

```
Contribution Name..........: NULLJOB
   Title..................: Display Total Percentage of CPU Utilization
   File Names.............: 00. Rename Transfer File
                           : 01. NULLJOB.SBMT
                           : 02. NULLJOB.FTN
                           : 03. NULLJOB.REL
                           : 04. NULLJOB.CAL
   Operating System.......: RTE-A, RTE-6, New File System
   Language(s)............: FTN7X
   Keywords...............: Reports
                           : Performance
                           : System
   External Support Req'd...:
   If Re-submission, Reason.: Want it in both CSL and SWAP
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
            Telex Number...: 650 211 1023 (WUI)
Contribution Abstract......:

NULLJOB runs at priority 32767 (lowest possible) and executes a task
previously calibrated to take 1.00 seconds.  When the task completes,
NULLJOB determines how long it really took, and uses that information
to calculate the percentage of CPU time used by OTHER tasks during
the run period.

NULLJOB arguably displays very useful and accurate information, because
it takes into account operating-system and driver activity as well as
all other running processes.  It often gives substantially different
results than METER does.

To load it: LINK NULLJOB.REL NULLJOB::PROGRAMS.

The file NULLJOB.CAL must be put on the /SYSTEM directory.  NULLJOB.FTN
describes some typical calibration values for several different CPU's.
The calibration value for one CPU may be different than that for
another of the same type.  Adjust the value in NULLJOB.CAL::SYSTEM
until NULLJOB displays every 1.00 seconds on an otherwise idle system.
```

PAUSE M035

INTERACTIVE PAUSE

```
Contribution Name..........:PAUSE
   Title..................:Interactive PAUSE
   File Names.............:00. Rename Transfer File
                         :01. PAUSE.SBMT
                         :02. PAUSE.FTN
                         :03. PAUSE.REL
   Operating system(s).....:RTE-A, RTE-6
   Uses hierarchical files?.:No
   Language(s).............:FTN7X
   Keywords................: 1. CI
                           : 2. Command_files
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:Donald A. Wright
            Company........:Interactive Computer Technology
            Street.........:2069 Lake Elmo Avenue
            City...........:Lake Elmo
```

```
                State.........:MN
                Country.......:USA
                Zip Code......:55042
                Phone Number..:612/770-3728
Program Abstract.............:

PAUSE is a very short program which provides a calibrated pause.  It
is particularly intended for use in CI command files, where a pause
might be needed while a tape drive loads or some other related
process takes place.  It is basically an EXEC 12 self-suspend, except
that it actually does 1-second suspends and checks for the break flag
each second, terminating if the flag is detected.
```

ERROR — M036

EXPLAIN FMP ERROR

```
Contribution Name............:ERROR
   Title.....................:Explain FMP error
   File Names................:00. Rename Transfer File
                            :01. ERROR.SBMT
                            :02. ERROR.FTN
                            :03. ERROR.REL
   Operating system(s).......:RTE-A, RTE-6
   Uses hierarchical files?..:Yes
   Language(s)...............:FTN7X
   Keywords..................: 1. ERROR
                            : 2. FILES
   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.............:

How many times have you picked up the Programmers Guide simply to look
up a FMP error code?  ERROR is an exceedingly short (and small) program
which provides the short explanation for any FMP error code.  Simply
enter ERROR <code>, where <code> is the code needing the explanation.
ERROR calls FMPREPORTERROR to display the explanation on the screen.
```

CNVRT — M037

SMALL INTERNAL CONVERSION FORMATTER

```
Contribution Name............: CNVRT
   Title.....................: SMALL INTERNAL CONVERSION FORMATTER
   File Names................:00. Rename Transfer File
                            :01. CNVRT.SBMT
                            :02. CNVRT.MAC
                            :03. CNVRT.REL
                            :04. IDRCT.MAC
                            :05. IDRCT.REL
                            :06. CNVRT.LOD
                            :07. CNVRT.MAKE        make file
   Operating System(s).......: ALL
   Language(s)...............: MACRO
   Keywords..................: 1. FORMATTING
                            : 2. CONVERSION
                            : 3. LIBRARY
   External Support Req'd...:  CALLABLE BY MACRO ONLY
   If Re-submission, Reason.:
Contributor's Name...........: Donald L. Clapp
                Company......: Eli Lilly & Co.
                Street.......: 307 E. McCarty St.
                City.........: Indianapolis
                State........: Indiana
                Country......: USA
                Zip Code.....: 46285
                Phone Number..: (317) 276-4458
                Telex........:
Contribution Abstract........:   This set of routines provide
most of the formatting functions that are commonly used but in
much less space that FORTRAN would.   It is callable only in MACRO
because of the way some parameters are passed.   It was derived
from the FORTRAN II formatter of about 1974.   It does do conversions
both directions in Integer,Real, and Octal.   The code is in place
to do Integer*4 output and Exponential output but has been
commented out for 11 years.   It will do Integer output with leading
zeros.    As it stands now all of the features occupy only 656(10)
words.
Additional Documentation....:  SEE SOURCE CODE FOR CALLING SEQUENCE.
```

DVERI — M038

DISC VERIFICATION ON-LINE

```
Contribution Name............: DVERI
   Title.....................: DISC VERIFICATION ON-LINE
   File Names................:00. Rename Transfer File
                            :01. DVERI.SBMT
                            :02. DVERI.FTN
                            :03. DVERI.REL
                            :04. DVERI.LOD
                            :05. DVERI.MAKE
   Operating System(s).......: RTE-A  (SHOULD WORK ON ALL)
   Language(s)...............: FTN7X
   Keywords..................: 1. SYSTEM
                            : 2. DIAGNOSTIC
                            : 3. DISC
   External Support Req'd...: NONE
   If Re-submission, Reason.:
```

```
Contributor's Name.....: Donald L. Clapp
              Company..: Eli Lilly & Co.
              Street...: 307 E. McCarty St.
              City.....: Indianapolis
              State....: Indiana
              Country..: USA
              Zip Code.: 46285
              Phone Number..: (317) 276-4458
              Telex....:
Contribution Abstract....:  This contribution works its way
 through all mounted discs reading all blocks on all tracks.
 The program has a low priority and suspends between each read.
 It should not affect system performance very much.   If your
 disc does have a problem this program may help isolate it.
Additional Documentation....:   See source
```

FS — **M039**

DISC BIT MAP DISPLAY

```
Contribution Name.....: FS
   Title..............: DISC BIT MAP DISPLAY
   File Names.........:00. Rename Transfer File
                      :01. FS.SBMT
                      :02. FS.FTN
                      :03. FS.REL
                      :04. FS.LOD
                      :05. FS.ORIG       ORIGINAL
                      :06. FS.MAKE
   Operating System(s).: RTE-A  (SHOULD WORK ON ALL)
   Language(s).........: FTN7X
   Keywords............: 1. MAP
                      : 2. STORAGE
                      : 3. DISC
                      : 4. CI
   External Support Req'd...: CI FILE SYSTEM
   If Re-submission, Reason.:
Contributor's Name.....: Donald L. Clapp
              Company..: Eli Lilly & Co.
              Street...: 307 E. McCarty St.
              City.....: Indianapolis
              State....: Indiana
              Country..: USA
              Zip Code.: 46285
              Phone Number..: (317) 276-4458
              Telex....:
Contribution Abstract....:   If you have a graphics terminal,
 this program will display the bit map for a CI volume.  On a
 non graphic terminal it gives you the same information that
 FREES does.   I don't know where this came from, and I have
 only made very small changes.    My thanks to the original
 author.
Additional Documentation....:   See source
```

PASS_CHECK6 — **M040**

RTE-6 PASSWORD AGING

```
Contribution Name.....: PASS_CHECK6
   Title..............: RTE-6 PASSWORD AGING
   File Names.........:00. Rename Transfer File
                      :01. PASS_CHECK6.SBMT
                      :02. PASS_CHECK6.FTN
                      :03. PASS_CHECK6.REL
                      :04. PASS_CHECK6.LOD
                      :05. LJSTF.MAC          LEFT JUSTIFY
                      :06. LJSTF.REL
                      :07. COMPW.MAC        COMPARE WORDS
                      :08. COMPW.REL
                      :09. PASS_CHECK6.MAKE
   Operating System(s).: RTE-6 ONLY (RTE-4B ?)
   Language(s).........:  FORTRAN 77 & MACRO
   Keywords............: 1. SYSTEM
                      : 2. SECURITY
                      : 3. SESSION
   External Support Req'd...:  SESSION AND CI FILES
   If Re-submission, Reason.:
Contributor's Name.....: Donald L. Clapp
              Company..: Eli Lilly & Co.
              Street...: 307 E. McCarty St.
              City.....: Indianapolis
              State....: Indiana
              Country..: USA
              Zip Code.: 46285
              Phone Number..: (317) 276-4458
              Telex....:
Contribution Abstract....:    This program allows a user to
change their password.  If this program is run in the 'HI' file
it will REQUIRE the user to change their password at some interval.
The interval is now set to 90 days.  To cause the password age
to be checked,  put this statement in the 'HI' file:
    RU,PASS_CHECK,1,99
To change your password at any time, type  RU,PASSWORD
Passwords must always be changed by this program in order for
the date of the change to be updated.
```

SMPLY — **M041**

ENHANCEMENTS TO RTE-6 SPOOLING

```
Contribution Name.....: SMPLY
   Title..............: ENHANCEMENTS TO RTE-6 SPOOLING
   File Names.........:00. Rename Transfer File
                      :01. SMPLY.SBMT
                      :02. SMPLY.FTN       MONITOR & DOCUMENTATION
                      :03. SMPLY.REL
                      :04. SMPLY.LOD
                      :05. SPOOL.FTN      SETUP SUBROUTINES
```

```
                                :06. SPOOL.REL
                                :07. NSCOM.MAC
                                :08. NSCOM.REL
                                :09. NSCOM.HELP
                                :10. IDRCT.MAC
                                :11. IDRCT.REL
                                :12. MSORT.MAC
                                :13. MSORT.REL
                                :14. XWRD.MAC
                                :15. XWRD.REL
                                :16. OUTSPLR.FTN    OUTSPOOLER
                                :17. OUTSPLR.REL
                                :18. SMPLY.MAKE     make file
   Operating System(s).....: RTE-6  ONLY
   Language(s).............: FTN7X
   Keywords................: 1. SPOOLING
   External Support Req'd...: USES STANDARD SPOOLING (GASP & SMP)
                            : Needs Msort (LyLIB ?)
   If Re-submission, Reason.:
Contributor's Name.........: Donald L. Clapp
             Company.......: Eli Lilly & Co.
             Street........: 307 E. McCarty St.
             City..........: Indianapolis
             State.........: Indiana
             Country.......: USA
             Zip Code......: 46285
             Phone Number..: (317) 276-4458
             Telex.........:
Contribution Abstract.....:  This contribution implements some
enhancements to RTE-6 spooling.  The major limitation that we addressed
is the limit of 10(ten) outspool devices.  This package does not care
how many you use.  As supplied it is configured for 20 but this
is easily changed.  The Lu's that this package handles are in
addition to what RTE(GASP) knows about.  You can in fact use this
for all of the outspooling.
  Some other features are:
forms type control; multiple copies; holds by file, Lu, or system.
The setup and close subroutines will need to be adjusted for your
system.
Additional Documentation....:  See source (SMPLY & SPOOL).
```

PLOT M042

GENERAL PLOT PROGRAM (PART 1 OF 3)

```
Contribution Name..........:PLOT
   Title...................:GENERAL PLOT PROGRAM (PART 1 OF 3)
   File Names..............: 00  Rename Transfer File
                          : 01 PLOT1.SBMT
                          : 02 #NAMES_PLOTLIB
                          : 03 A0801
                          : 04 ADD_FN.FTN
                          : 05 ADD_FN.REL
                          : 06 ADD_PRM.FTN
                          : 07 ADD_PRM.REL
                          : 08 ANG_ADJUST.FTN
                          : 09 ANG_ADJUST.REL
                          : 10 AZ_ADJUST.REL
                          : 11 BIGLB.LIB
                          : 12 BLOCK2_DATA.FTN
                          : 13 BLOCK2_DATA.REL
                          : 14 BLOCK_DATA.FTN
                          : 15 BLOCK_DATA.REL
                          : 16 C0101_
                          : 17 C0103
                          : 18 C0104
                          : 19 C0108
                          : 20 C010B
                          : 21 CAGP
                          : 22 CFORM
                          : 23 CGET_VALUE
                          : 24 CHK_VALUE.FTN
                          : 25 CHK_VALUE.REL
                          : 26 CINIT
                          : 27 CMOVE
                          : 28 CNEXTFILE
                          : 29 COMEMA
                          : 30 COMPUTE.FTN
                          : 31 COMPUTE.REL
                          : 32 CONV_SYMB.FTN
                          : 33 CONV_SYMB.REL
                          : 34 CPFLG
                          : 35 CPLOT
                          : 36 CPRM
                          : 37 CREPLT
                          : 38 CSETR
                          : 39 CTEMP
                          : 40 CY_AXI
                          : 41 D1_
                          : 42 D2
                          : 43 DESCRIP
                          : 44 F0013
                          : 45 F0014
                          : 46 TDATA
                          : 47 FIXT.FTN
                          : 48 FIXT.REL
                          : 49 FORM.FTN
                          : 50 FORM.REL
                          : 51 FORM2.FTN
                          : 52 FORM2.REL
                          : 53 FORM_DUMP.FTN
                          : 54 FORM_DUMP.REL
                          : 55 FRAM1.FTN
                          : 56 FRAM1.REL
                          : 57 FRAM2.FTN
                          : 58 FRAM2.REL
                          : 59 FRAM3.FTN
                          : 60 FRAM3.REL
                          : 61 GET_DEVICE.FTN
                          : 62 GET_DEVICE.REL
                          : 63 GET_NEXT.FTN
                          : 64 GET_NEXT.REL
                          : 65 GET_NEXT_HDR.FTN
                          : 66 GET_NEXT_HDR.REL
                          : 67 GET_PTRS.FTN
```

```
                                  : 68 GET_PTRS.REL
                                  : 69 GET_VALUE.FTN
                                  : 70 GET_VALUE.REL
                                  : 71 GLIM.FTN
                                  : 72 GLIM.REL
                                  : 73 H4
                                  : 74 H5
                                  : 75 HANDLER.FTN
                                  : 76 HANDLER.REL
                                  : 77 INIT_PTRS.FTN
                                  : 78 INIT_PTRS.REL
                                  : 79 L110T
                                  : 80 LIM1.TXT
                                  : 81 LOOP.FTN
                                  : 82 LOOP.REL
                                  : 83 MOREF.FTN
                                  : 84 MOREF.REL
                                  : 85 MOVE_REC.FTN
                                  : 86 MOVE_REC.REL
                                  : 87 MOVE_RECR.FTN
                                  : 88 MY_FLAG.REL
                                  : 89 MY_FORM.FTN
                                  : 90 MY_FORM.REL
                                  : 91 #MERGE_PLOT
    Operating System.....:RTE/6
    Uses hierarchical files?..:YES
    Language(s)..........:FTN77
    Keywords.............: 1. Plotting
                        : 2. Graphics
    External Support Req'd...:AGP
    If Re-submission, Reason.:
 Contributor's Name.....:DONALD LESLIE
                Company.....:RAYTHEON MSD
                Street.....:PO BOX B
                City.....:WSMR
                State.....:NEW MEXICO
                Country.....:USA
                Zip Code.....:88002
                Phone Number..:505-678-9181
 Program Abstract.....:
PLOT is a program to plot radar data . It is designed to provide flexibility
for the user with data which is relatively constant in content .

The program is table driven . All message formats are in tables external to
the program . These tables contain the field names and associated type . User
input is through menus . All responses are symbolic . The menus display the
possible parameters . No knowledge is required of the physical layout of the
file once the messaage descriptions have been created .

The program can do rectangular , polar and circular plots .The output can be
to a graphics terminal , 7550 plotter or 25xx printer ( 2608S ).

The user can specify static or dynamic for the limits for the axes to be
plotted . In addition other parameters in the message can be given to provide
additional filtering .

The program sorts the input data into an EMA file . This data can be replotted
from memory . A replot can change the output device and format (i.e. change
from polar to rectangular ) . In addition , the axis limits can be reduced to
change the scaling .

 Additional Documentation....: See Interex San Jose proceedings
                               See PLOT.DOC
```

PLOT M043

GENERAL PLOT PROGRAM (PART 2 OF 3)

```
Contribution Name.....:PLOT
   Title.....:GENERAL PLOT PROGRAM (PART 2 OF 3)
   File Names.....:00. Rename Transfer File
                  :01. PLOT2.SBMT
                  :02. PARAMETERS
                  :03. PARSE.FTN
                  :04. PARSE.REL
                  :05. PFLG1.FTN
                  :06. PFLG1.REL
                  :07. PFLG2.FTN
                  :08. PFLG2.REL
                  :09. PLOT.CMD
                  :10. PLOT.FTN
                  :11. PLOT.LIB
                  :12. PLOT.LOD
                  :13. PLOT.MAP
                  :14. PLOT.REL
                  :15. PLOT1.FTN
                  :16. PLOT1.REL
                  :17. PLOT.DOC
   Operating System.....:RTE/6
   Uses hierarchical files?..:YES
   Language(s)..........:FTN77
   Keywords.............: 1. Plotting
                       : 2. Graphics
   External Support Req'd...:AGP
   If Re-submission, Reason.:
Contributor's Name.....:DONALD LESLIE
               Company.....:RAYTHEON MSD
               Street.....:PO BOX B
               City.....:WSMR
               State.....:NEW MEXICO
               Country.....:USA
               Zip Code.....:88002
               Phone Number..:505-678-9181
Program Abstract.....:
 See description in part 1 of this contribution
```

PLOT

GENERAL PLOT PROGRAM (PART 3 OF 3)

Contribution Name.....:PLOT
Title.....:GENERAL PLOT PROGRAM (PART 3 OF 3)
File Names.....: 00 Rename Transfer File
: 01 PLOT3.SBMT
: 02 PLOT_3.REL
: 03 PLOT_ANG.FTN
: 04 PLOT_ANG.REL
: 05 PLOT_C.FTN
: 06 PLOT_C.REL
: 07 PLOT_DESC
: 08 PLOT_LOOP.FTN
: 09 PLOT_LOOP.REL
: 10 PLT_FLG.FTN
: 11 PLT_FLG.REL
: 12 POP.FTN
: 13 POP.REL
: 14 PRADI.FTN
: 15 PRADI.REL
: 16 PREDEF
: 17 PREDEF2
: 18 PRING.FTN
: 19 PRING.REL
: 20 PRM.TXT
: 21 PSCAN.FTN
: 22 PSCAN.REL
: 23 PTIME.FTN
: 24 PTIME.REL
: 25 PTITLE.FTN
: 26 PTITLE.REL
: 27 RDFIL.FTN
: 28 RDFIL.REL
: 29 REPLOT.TXT
: 30 REPLT.FTN
: 31 REPLT.REL
: 32 RESET.FTN
: 33 RESET.REL
: 34 SAVETN.FTN
: 35 SAVETN.REL
: 36 SERR.FTN
: 37 SERR.REL
: 38 SET.FTN
: 39 SET.REL
: 40 SET1.FTN
: 41 SET1.REL
: 42 SET1.TXT
: 43 SET3.FTN
: 44 SET3.REL
: 45 SETR.FTN
: 46 SETR.REL
: 47 SETSRC.FTN
: 48 SETSRC.REL
: 49 SETUP.FTN
: 50 SETUP.REL
: 51 SET_LIMITS.FTN
: 52 SET_LIMITS.REL
: 53 SET_PRM.FTN
: 54 SET_PRM.REL
: 55 SFLG.FTN
: 56 SFLG.REL
: 57 SMAX.FTN
: 58 SMAX.REL
: 59 SMIN.FTN
: 60 SMIN.REL
: 61 SORTR.FTN
: 62 SORTR.REL
: 63 SRC.TXT
: 64 STRK.FTN
: 65 STRK.REL
: 66 SUMMARY.FTN
: 67 SUMMARY.REL
: 68 SUMMARY.TXT
: 69 SWITCH.FTN
: 70 SWITCH.REL
: 71 S_LIM1.TXT
: 72 TAG.FTN
: 73 TAG.REL
: 74 TEST_FN.FTN
: 75 TEST_FN.REL
: 76 TITLE.TXT
: 77 UTILITY.FTN
: 78 UTILITY.REL
: 79 VARIABLES
: 80 V_AXI.FTN
: 81 V_AXI.REL
: 82 WHERE.FTN
: 83 WHERE.REL
: 84 XAXISR.FTN
: 85 XAXISR.REL
: 86 X_AXI.FTN
: 87 X_AXI.REL
: 88 Y_AXI.FTN
: 89 Y_AXI.REL
: 90 PLOT_3.FTN
: 91 D2 FILES
: 92 PLOT3.MAP
: 93 PLOT.DBG
: 94 BORDER.FTN
: 95 BORDER.REL
: 96 POL2XY.FTN
: 97 POL2XY.REL
: 98 SD0
Operating System.....:RTE/6
Uses hierarchical files?.:YES
Language(s).....:FTN77
Keywords.....: 1. Plotting
: 2. Graphics
External Support Req'd...:AGP
If Re-submission, Reason.:
Contributor's Name.....:DONALD LESLIE
Company.....:RAYTHEON MSD

```
                    Street.....:PO BOX B
                    City.......:WSMR
                    State......:NEW MEXICO
                    Country....:USA
                    Zip Code...:88002
                    Phone Number..:505-678-9181
Program Abstract.............:
 See description in part 1 of this contribution
```

SEARCH — SEARCH FOR STRING ACROSS DIRECTORY — M045

```
Contribution Name............:SEARCH
   Title.....................:SEARCH FOR STRING ACROSS DIRECTORY
   File Names................: 00  Rename Transfer File
                             : 01 SEARCH.SBMT
                             : 02 SEARCH.REL
                             : 03 SEARCH.LOD
                             : 04 SEARCH.HLP
                             : 05 SEARCH.FTN
   Operating System.........:RTE-6,RTE-A
   Uses hierarchical files?.:YES
   Language(s)..............:FTN77
   Keywords.................: 1. Search
                             : 2. Directory
                             : 3. Strings
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name...........:DONALD LESLIE
                    Company....:RAYTHEON MSD
                    Street.....:PO BOX B
                    City.......:WSMR
                    State......:NEW MEXICO
                    Country....:USA
                    Zip Code...:88002
                    Phone Number..:505-678-9181
Program Abstract.............:
SEARCH allows a user to search for a string in all files in a directory
with a mask specification .

Usage:  SEARCH  Filemask  String1[:String2 ] [ Output ] [ Option(s) ]

        Output may be an Lu or Filename . If nothing is  specified LU 1 is
        assumed .

        The options are :

           -D  The default is a delimited search where the delimiters
               are   , ()+-*/:'"=.' . -D surpresses the delimiter check .

           -L  Display only the name of files containing a match .

           +X  String1 is replaced by String2 ( may be combined with -D to
               do a non delimited exchange ) .

The program accepts Break . Type EX to exit anything else to continue .
```

FONTEDIT — LOAD AND EDIT LASERJET+ SOFT FONTS — M046

```
Contribution Name............: FONTEDIT
   Title.....................: Load and Edit LaserJet+ Soft Fonts
   File Names................:00. Rename Transfer File
                             :01. FONTEDIT.SBMT  submission file
                             :02. FONTEDIT.DOC  documentation file
                             :03. FONTEDIT.FTN  source file
                             :04. FONTEDIT.REL  relocateable file
                             :05. FONTEDIT.LOD  link file
                             :06. FIXFONT.FTN  source file
                             :07. FIXFONT.REL  relocatable file
                             :08. FIXFONT.LOD  link file
                             :09. SETJET.FTN  source file
                      CAUTION- change stmnt 100 in SETJET.FTN and re-compile
                             :10. SETJET.REL  reloacatable file
                             :11. SETJET.LOD  link file
                             :12. $HSLIB.LIB  Haystack library
                             :13. $CHAR.LIB  character handling library
                             :14. CHARM.MAC macro source for $CHAR.LIB
                             :15. CHARF.FTN fortran source for $CHAR.LIB
                             :16. MATHFONT   sample soft fonts for DEMO_F
                             :17. FONTEDIT.FONT     soft font for DEMO_F
                             :18. DEMO_F sample Greek and math for TYPER
                             :19. ?FONTS  help file for SETJET (copy to /HELP)
                             :20. CNVFONT.FTN source for CNVFONT
                             :21. CNVFONT.REL rel  for CNVFONT
                             :22. FT12R10.USPM block          \
                             :23. HW12R06.USPM hollow          \  fonts from
                             :24. LR12R06.USPM large           > Interex
                             :25. OE18RPN.USPM Old English    /  BBS
                             :26. SC18RPN.USPM Script        /
                             :27. TR120RPN.USPM Times Roman\
                             :28. TR120BPN.USPM TR Bold     )  fonts from
                             :29. TR120IPN.USPM TR italic   /  METRO Fontpac
                             :30. TR120SPN.USPM TR shadow  /
                             :31. DEMO_PROP      demo of TR fonts; uses TYPER
                             :32. GETSAM.REL \ used with RTE-A spooling
                             :33. LUTRU.REL  / redirection
                      COPY THE FOLLOWING HELP FILES TO THE SYSTEM DIRECTORY
                             :34. FONTEDIT.MSG1  help file for FONTEDIT
                             :35. FONTEDIT.MSG3  help file for FONTEDIT
                             :36. FONTEDIT.MSG4  help file for FONTEDIT
                             :37. FONTEDIT.MSG5  help file for FONTEDIT
   Operating System.........: RTE-6 and RTE-A (CI supported)
   Language(s)..............: FORTRAN 77 and MACRO
   Keywords.................: 1. Word Processing
                             : 2. LaserJet
                             : 3. Font
   External Support Req'd...: 01. HP LaserJet Plus
```

: 02. HP LaserJet soft fonts
If Re-submission, Reason.:
Contributor's Name.....: F. Stephen Gauss
Company.....: U.S. Naval Observatory
Street.....: 34th St. and Mass. Ave.
City.....: Washington
State.....: DC
Country.....: USA
Zip Code.....: 20392 (new zip code)
Phone Number..: 202-653-1510
Program Abstract.....: FONTEDIT is a program to load HP's soft fonts for the LaserJet Plus from the HP1000 into the LaserJet. It can delete existing fonts, load new fonts and edit a font file to create new characters. FIXFONT is required to convert the fonts as received from HP to a useable format. See the documentation in FONTEDIT.DOC. SETJET can be used to select a given font once it is loaded into the Laserjet, or you can use any other program that allows font selection (such as TYPER). Font selection by ID number is supported by SETJET and TYPER Rev. 6.33 and later. SETJET contains the LU of your LaserJet at statement 100 and should be re-compiled.

To demonstrate the programs, use FONTEDIT to load MATHFONT into the Laserjet with ID number 22 and FONTEDIT.FONT with ID 124. Then use TYPER to print the DEMO_F file.

Additional Documentation....: see FONTEDIT.DOC

M047

FA88,FA89

THE FLOPPY ALMANAC

Contribution Name.....: FA88,FA89
Title.....: The Floppy Almanac
File Names.....:00. Rename Transfer File
:01. ALMANAC.SBMT
:02. FA88.FTN \
:03. FA88.REL \
:04. FA88_DATA.FTN / 1988 version
:05. FA88_DATA.REL /
:06. FA88.LOD (
:07. FA89_DATA.FTN \
:08. FA89_DATA.REL / 1989 version
:09. FA89.LOD /
:10. CLRSCR.FTN required subroutine
:11. CLRSCR.REL
:12. ORDER.FORM PC version order form
:13. READ.ME Info for PC version
Operating system(s).....: RTE-A only
Uses hierarchical files?.:
Language(s).....: FORTRAN 77
Keywords.....: 1. date
: 2. astronomy
External Support Req'd...: CDS is required
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.....: D.C.
Country.....: USA
Zip Code.....: 20392-5100
Phone Number..: 202-653-1510
Program Abstract.....: The Floppy Almanac is a program for MS-DOS based microcomputers which reproduces the data contained in the major sections of the Astronomical, Air, and Nautical Almanacs to full precision.
This program represents the Floppy Almanac as modified to run on the A900. It is an interactive program reproducing to stated accuracy the data found in The Astronomical Almanac produced by the U.S. Naval Observatory. It should be reasonably self explanatory, but an explanatory booklet is supplied with the PC version. The PC version of the Floppy Almanac is available with the documentation from the Naval Observatory. The order form is included here as ORDER.FORM.
The PC software alone is available through the INTEREX CSL/100.
Versions are provided here for 1988 and 1989. Before the end of 1988 it is expected that a more general version will be available for the years through 2000.0. When it is converted to the A900, it will be provided to the CSL/1000.

Additional Documentation....:
All formulas and constants are those mandated by the International Astronomical Union. The ephemeris used is J2000.0.

M048

WHAT

MONITOR SYSTEM TABLES, SUPPLEMENTS WH UTILITY

Contribution Name.....: WHAT
Title.....: MONITOR SYSTEM TABLES, SUPPLEMENTS WH UTILITY
File Names.....:00. Rename Transfer File
:01. WHAT.SBMT
:02. WHAT.PAS
:03. WHAT.REL
:04. STATE.PAS
:05. STATE.REL
:06. WHAT.LOD
Operating System(s).....: RTE-A
Language(s).....: Pascal/1000
Keywords.....: 1. SYSTEM TABLES
: 2. ID SEGMENTS
: 3. RESOURCE NUMBER
: 4. ANALYZER
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: George Robinson
Company.....: James River Corp.
Street.....: Harbison Road
City.....: Lexington
State.....: Ky
Country.....: USA
Zip Code.....: 40511
Phone Number..: (606) 259-9159

Telex.....:
Contribution Abstract.....:
WHAT provides information you would expect but don't get from WH, such as number of ID segments, used/free ID segments, shared program table entries, resource number usage, and a program/session masking capability similar to WHZAT.PL on RTE-6. Other functions include monitoring selected words of a program's ID segment, and monitoring specific values relating to time-scheduled programs.
Additional Documentation....:
See source code or use on-line help via ?? option.

HOERL

HOERL EQUATION REGRESSION

M049

Contribution Name.....: HOERL
Title.....: Hoerl equation regression
File Names.....:00. Rename Transfer File
:01. HOERL.SBMT - Submission file
:02. HOERL.FTN - Source code
:03. HOERL.REL - Relocatable
:04. HOERL.LOD - Link loader file
:05. HOERL.MAKE - make file
Operating System(s).....:RTE-6, RTE-A, others?
Language(s).....:FTN7X
Keywords.....: 1. REGRESSION
: 2. STATISTICS
External Support Req'd...: VIS
If Re-submission, Reason.:
Contributor's Name.....: Guy Reisenauer
Company.....: IAREC
Street.....: P.O. Box 30
City.....: Prosser
State.....: Washington
Country.....: US
Zip Code.....: 99350
Phone Number..: (509) 786-2226
Telex.....:
Contribution Abstract.....: This program regresses the linearized form of Hoerl's equation. This unique equation will fit about ten different forms of non-linear data.
Additional Documentation....: See source code for references and methods.

LINREG

LINEAR REGRESSION

M050

Contribution Name.....: LINREG
Title.....: Linear Regression
File Names.....:00. Rename Transfer File
:01. LINREG.SBMT - Submission file
:02. LINREG.FTN - FTN7X Source
:03. LINLIB.FTN - FTN7X Source
:04. LINREG.REL - Relocatable
:05. LINLIB.REL - Relocatable
:06. LINLIB.LIB - Lindxed Relocatable
:07. LINREG.LOD - Link loader file
:08. LINREG.CMD - Command file
:09. LINREG.MAKE - make file
Operating System(s).....:RTE-6/VM, RTE-A, others?
Language(s).....:FTN7X
Keywords.....: 1. REGRESSION
: 2. STATISTICS
External Support Req'd...: VIS, PRBF.LIB & TTABLE.TAB Submitted seperately
If Re-submission, Reason.:
Contributor's Name.....: Guy Reisenauer
Company.....: IAREC
Street.....: P.O Box 30
City.....: Prosser
State.....: Washington
Country.....: US
Zip Code.....: 99350
Phone Number..: (509) 786-2226
Telex.....:
Contribution Abstract.....:
Straight linear regression with some of the statistical frills.
This is a modified routine of the RMULT submission.

POLREG

POLYNOMIAL REGRESSION

M051

Contribution Name.....: POLREG
Title.....: Polynomial Regression
File Names.....:00. Rename Transfer File
:01. POLREG.SBMT - Submission file
:02. POLREG.FTN - FTN7X Source code
:03. POLREG.REL - Relocatable
:04. POLREG.LOD - LINK loader file
:05. POLREG.MAKE - make file
Operating System(s).....: RTE-6/VM, RTE-A, others?
Language(s).....: FTN7X
Keywords.....: 1. REGRESSION
: 2. STATISTICS
External Support Req'd...: VIS, PRBF.LIB another submission.
If Re-submission, Reason.:
Contributor's Name.....: Guy Reisenauer
Company.....: IAREC
Street.....: P.O. Box 30
City.....: Prosser
State.....: Washington
Country.....: US
Zip Code.....: 99350
Phone Number..: (509) 786-2226
Telex.....:
Contribution Abstract.....: Perform polynomial regression to fourth order.
Additional Documentation....: See source for method of solution.

M052

PRBF

EXACT PROBABILITY OF F/T DISTRIBUTION(S)

```
Contribution Name.....: PRBF
   Title..............: Exact probability of F/t distribution(s).
   File Names.........:00. Rename Transfer File
                      :01. PRBF.SBMT  - Submission file
                      :02. PRBF.FTN   - Source code
                      :03. PRBF.REL   - Relocatable file
                      :04. PRBF.LIB   - LINDXed relocatable
                      :05. TTABLE.TAB - Type 2 t Table file
   Operating System(s).: Any
   Language(s)........: FNT7X
   Keywords...........: 1. STATISTICS
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name....: Guy Reisenauer
            Company...: IAREC
            Street....: P.O. Box 30
            City......: Prosser
            State.....: Washington
            Country...: US
            Zip Code..: 99350
            Phone Number..: (509) 786-2226
            Telex.....:
Contribution Abstract.: Compute the exact probabilty of F or t
 distributions with series analysis.  TTABLE.TAB is used by other programs
 submitted.  There are other useful routines in this library such as a
 gamma function.
```

M053

RMULT

MULTIPLE REGRESSION

```
Contribution Name.....: RMULT
   Title..............: MULTIPLE REGRESSION
   File Names.........:00. Rename Transfer File
                      :01. RMULT.SBMT     - Submission file
                      :02. RMULT.FTN      - Main program source
                      :03. RMULT.REL      - Relocatable file
                      :04. REGLIB.FTN     - Subroutine Library
                      :05. REGLIB.REL     - Subroutine relocatables
                      :06. RMULT.LIB      - Merged and indexed file
                      :07. RMULT.LOD      - MLLDR command file
                      :08. RMULT.CMD      - Compile command file
                      :09. RMULT.MRG      - INDXR command file
                      :10. RMULT.HLP      - Help file
                      :11. RMULT.MAKE
   Operating System(s).:RTE-6/VM, RTE-A?
   Language(s)........:FTN7X
   Keywords...........: 1. REGRESSION
                       2. STATISTICS
   External Support Req'd...: VIS, PRBF.LIB & TTABLE.TAB Submitted seperately
   If Re-submission, Reason.:
Contributor's Name....: Guy Reisenauer
            Company...: IAREC
            Street....: P.O. Box 30
            City......: Prosser
            State.....: Washington
            Country...: US
            Zip Code..: 99350
            Phone Number..: (509) 786-2226
            Telex.....:
Contribution Abstract.....:
This is an interactive ten variable multiple regression program.
This is an interactive ten variable multiple regression program with CDS
The program has been loaded with MLLDR on RTE-6 and should work with CDS
on RTE-A.  For the statistics buffs, REGLIB.FTN has other useful routines
such as maximum likelihood calculation, matrix inversion, and others.

Additional Documentation....: See RMULT.HLP
```

M054

SORTR

GENERAL PURPOSE FILE SORTING UTILITY

```
Contribution Name.....: SORTR
   Title..............: General purpose file sorting utility.
   File Names.........:00. Rename Transfer File
                      :01. SORTR.SBMT
                      :02. SORTR.FTN
                      :03. SORTR.REL
                      :04. SORTR.HLP
                      :05. SORTR.DOC
   Operating System(s).: RTE-A, RTE-6
   Language(s)........: FTN7X
   Keywords...........: 1. SORT
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Jacques Sansdrap
            Company...: Univ. Cath. Louvain
            Street....: av. Hippocrate, 55/5560
            City......: 1200 BRUXELLES
            State.....:
            Country...: BELGIUM
            Zip Code..:
            Phone Number..: (32.2) 764.55.61
            Telex.....: UCLWOL B 23722
Contribution Abstract.....: Fast in-place sort of variable-length records
   in FMP files. Up to five key windows. Several modes of window content
   evaluation. Options to delete duplicate records and to list and/or to
   save them in a file. Increasing or decreasing sort. Fully controlled
   by the run string.
Additional Documentation....: See SORTR.DOC
```

RPRINT

REMOTE DS/1000 PRINT PROGRAMS

M055

```
Contribution Name.....: RPRINT
   Title..............: Remote DS/1000 print programs
   File Names.........:00. Rename Transfer File
                      :01. RPRINT.SBMT    - submission file
                      :02. RPRINT.FTN     - source
                      :03. RPRINT.REL     - relocatable
                      :04. RPRINT.LOD     - load file
                      :05. RPRINT.HELP    - help file
                      :06. PRTFMREM.FTN   - source, PRinT FroM REMote
                      :07. PRTFMREM.REL   - relocatable
                      :08. PRTFMREM.LOD   - load file
                      :09. PRTFMREM.HELP
   Operating System(s).: RTE-A and RTE-6
   Language(s)........: FTN7X
   Keywords...........: 1. DS
                      : 2. PRINTER
   External Support Req'd...: CI files, RTE, DS/1000, directory /PRINT on
                            : printer nodes (with write access for TRFAS)
   If Re-submission, Reason.:
Contributor's Name.....: Jeff Heneks
            Company....: Computer Sciences Corp.
            Company....: (under contract for INTELSAT)
            Street.....: 3400 International Drive, N.W. Box 31
            City.......: Washington
            State......: DC
            Country....: USA
            Zip Code...: 20008-3098
            Phone Number..: (202) 944-7634
            Telex......:
Contribution Abstract.....:
   This package contains two programs to facilitate printing files on
   a remote DS/1000 system.  RPRINT invokes PRINT with the overwrite
   option using a unique name to send a file to a remote system in the
   directory  /PRINT.  PrtFmRem then prints the files from the /PRINT
   directory.  RPRINT has options that specify the desired printer.
   The file type extension is used to select the printer.  The user
   need not know the node number or LU.  Copies of PrtFmREm are
   invoked for each printer using run time parameters to specify the
   file type extension, how often the program looks at the print
   directory, and the LU number.  Our version of RPRINT has options
   WID for printing on wide paper on node 10, NAR for printing on narrow
   paper on node 10, and LAS for printing on the laser printer on node 4.
   These optins can easily be changed in RPRINT. PrtFmRem need not be
   changed, as run time options will provide enough flexibility.
```

SKED

TIME-SCHEDULED PROGRAM SCHEDULER

M056

```
Contribution Name.....: SKED
   Title..............: Time-scheduled program scheduler
   File Names.........:00. Rename Transfer File
                      :01. sked.sbmt
                      :02. sked.ftn
                      :03. sked.rel
                      :04. sked.lod
                      :05. sked.dat
                      :06. skdfl.ftn     !Subroutine to read sked.dat
                      :07. skdfl.rel
   Operating System...: RTE-6/VM and others?
   Language(s)........: FORTRAN 77
   Keywords...........: 1. Scheduling
                      : 2. System
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....: Jim Becker
            Company....: ICI Americas Inc.
            Street.....: 5757 Underwood Rd.
            City.......: Pasadena
            State......: Texas
            Country....: USA
            Zip Code...: 77507
            Phone Number..: (713) 474-5151
Contribution Abstract.....:

This program is used to schedule programs that run on a time-scheduled basis.
Programs do not need to be RP'ed.  Programs are run without wait so any
number of programs can be run at a given time.

A list of programs with the start time, frequency and run string are in
Sked.dat.  SKED is self-scheduling so keep it as the first entry in Sked.dat
and set the frequency at which you want it to run.

All you need to do to use SKED is to set up Sked.dat and copy it to the
system directory.  Then you can run SKED from your session.  SKED detaches
itself from your session so it will continue after you log off.

To change the schedule, edit Sked.dat and then set SKED's break flag.  The
next time SKED executes it will reread Sked.dat. This way you can change the
schedule and not have to go to the system console.

To turn SKED off, edit Sked.dat to set its frequency to 0 and then set SKED's
break flag.  This will cause SKED to stop.

To run SKED from your welcom file RP it and then RUN it.

SKED also prints a time message on the system console each hour to make it
easier to tell about when a non-time stamped system error occured.


Additional Documentation....:

Use Link or Loadr.  This program uses no libraries.
```

M057

APPTS

A CALENDAR SYSTEM FOR THE MODERN EXECUTIVE

```
Contribution Name.....: APPTS
   Title..............: A calendar system for the modern executive
   File Names.........:00. Rename Transfer File
                      :01. APPTS.SBMT
                      :02. CALANDER.DB
                      :03. CLEAN.FTN
                      :04. CLEAN.REL
                      :05. CLEAN.LOD
                      :06. CLEAN.SCN
                      :07. DATESUB.FTN
                      :08. DATESUB.REL
                      :09. ENTER.FTN
                      :10. ENTER.REL
                      :11. ENTER.LOD
                      :12. ENTER.SCN
                      :13. MAINT.FTN
                      :14. MAINT.REL
                      :15. MAINT.LOD
                      :16. MAINT.SCN
                      :17. MENU.FTN
                      :18. MENU.REL
                      :19. MENU.LOD
                      :20. MENU.SCN
                      :21. REPORT.FTN
                      :22. REPORT.REL
                      :23. REPORT.LOD
                      :24. REPORT.SCN
                      :25. SCAN.FTN
                      :26. SCAN.REL
                      :27. SCAN.LOD
                      :28. SCAN.SCN
                      :29. STARTER.FTN
                      :30. STARTER.REL
                      :31. STARTER.LOD
                      :32. FL.CMD
                      :33. CISCREEN.REL
                      :34. APPTS.MAKE
Operating System(s)...: RTE-A, etc w/ CI
Language(s)...........: Fortran 77
Keywords..............: 1. Calendar
                     :  2. Scheduling
External Support Req'd...: IMAGE2
If Re-submission, Reason.:    **>> CALENDAR.DB DATA-BASE SCHEMA LEFT
                     :           OFF ORIGINAL TAPE
Contributor's Name....: John Domanico
            Company...: Warner Lambert / Parke Davis Div
            Street....: 201 Tabor Rd.
            City......: Morris Plains
            State.....: New Jersey
            Country...: USA
            Zip Code..: 07950
            Phone Number..: (201) 540-6112
            Telex.....:
Contribution Abstract.: This is a user friendly appointment and
follow-up reminder program. The user choses from an option from a menu.
Separate sub-screens guide the user through entry, reporting, scanning,
modification, and eraseing.  Multiple users are intended so that all may
review calendars for meeting scheduling.

Additional Documentation....: Fortran code and link files will need to
be modified to include the proper LU's and carts for use.  Also, the data-
base will need to be created by running the proper IMAGE2 commands.
```

M058

ADVENTURE

ADVENTURE GAME, VERSION 2.2

```
Contribution Name.....: ADVENTURE
   Title..............: Adventure Game, Version 2.2
   File Names.........: 00. Rename transfer file.
                     :  01. ADVENTURE.SBMT
                     :  02. ADVENT.FTN
                     :  03. ADVENT.REL
                     :  04. AINIT.FTN
                     :  05. AINIT.REL
                     :  06. AMAIN.FTN
                     :  07. AMAIN.REL
                     :  08. ASUB.FTN
                     :  09. ASUB.REL
                     :  10. AIOSUB.FTN
                     :  11. AIOSUB.REL
                     :  12. ABUILD.FTN
                     :  13. ABUILD.REL
                     :  14. ALPHAS.INCL
                     :  15. ARYCOM.INCL
                     :  16. IOCCOM.INCL
                     :  17. LINCOM.INCL
                     :  18. MAGCOM.INCL
                     :  19. MISCOM.INCL
                     :  20. PLACOM.INCL
                     :  21. TRVCOM.INCL
                     :  22. TXTCOM.INCL
                     :  23. VOCCOM.INCL
                     :  24. ADVENT.LOD
                     :  25. ABUILD.LOD
                     :  26. ADVENTURE.TXT
                     :  27. ADVENTURE.DAT
                     :  28. ADVENTURE.DOC
                     :  29. MESSAGE.TXT
                     :  30. CHEAT.TXT
Operating System.....: RTE-6/VM and RTE-A
Language(s)..........: FTN77
Keywords.............: 1. Games
External Support Req'd...:
If Re-submission, Reason.: Bug fixes
```

Contributor's Name.....: John L. Anderson Jr.
Company.....: U.S. Naval Station
Street.....: Code 3441
City.....: Seal Beach
State.....: CA.
Country.....: USA
Zip Code.....: 90740
Phone Number..: (213) 594-7887
Telex.....:
Contribution Abstract.....:

Old games never die, they just get bigger. There have been many changes made to this game summarized as follows:

- No segmentation or LOADR
- No assembly language routines
- Data base stored in EMA memory
- Lower case letters used everywhere
- Expanded cave and magic mode
- Optional hours cave is open
- Save/restore game to disc file
- Command echo back with full spelling
- Every game is different using random numbers
- Use FORTRAN I/O for all files
- Easily ported to HP-UX systems
- Messages to users
- Fast response time
- Low usage of system resources

Additional Documentation....:

See ADVENTURE.DOC for installation. I believe all of the bugs are fixed but it is impossible to test every possible condition. Send me bug reports if you find any. I finally went through the entire game and have tested just about everything. You should now be able to extra points for the girls garter, the ruby skull and getting to charon's landing. I have gotten perfect scores but it is not easy. If you get to the final repository, try something that did not work earlier in the game. Be kind to the beautiful girl and watch out for the statue. It is possible to get all of the treasures but don't waste any time. The wizard mode is mainly for debugging and controlling access to the game. You don't need it for normal playing. Happy adventuring!

I have been porting this to an IBM PC and am also looking for the source code of the CP/M version that has the ice caves, computer room and other features. I think it was written in Basic. If anyone has a copy, let me know. CHEAT.TXT has all the answers for playing the game.

CHESS

M059

MINI-TECH CHESS GAME, VERSION 2.3

Contribution Name.....: CHESS
Title.....: Mini-Tech Chess Game, Version 2.3
File Names.....: 00. Rename transfer file.
: 01. CHESS.SBMT Submission file
: 02. CHESS.FTN - Main program source
: 03. SETBOARD.FTN
: 04. READ_MOVE.FTN
: 05. GENERAL_MOVE.FTN
: 06. PUSH_MOVE.FTN
: 07. CONSIDER_MOVES.FTN
: 08. STACK_PAWN.FTN
: 09. PAWN_CAPTURE.FTN
: 10. PROMOTE_PAWN.FTN
: 11. STACK_KN.FTN
: 12. STACK_BRQ.FTN
: 13. CASTLE.FTN
: 14. STACK_CASTLE.FTN
: 15. CASTLE_CHECK.FTN
: 16. STACK_MOVE.FTN
: 17. IN_CHECK_MACRO.FTN
: 18. KING_IN_CHECK.MAC
: 19. POSITION.FTN
: 20. OPENING.FTN
: 21. MIDGAME.FTN
: 22. ENDGAME.FTN
: 23. SORT_MOVES.FTN
: 24. PRUNE_MOVES.FTN
: 25. SCORE.FTN
: 26. CENTER_CONTROL.FTN
: 27. MOBILITY.FTN
: 28. KING_CHECK.FTN
: 29. SUM_VALUES.FTN
: 30. DEFEND_KING.FTN
: 31. OPENING_BONUS.FTN
: 32. MIDGAME_BONUS.FTN
: 33. ENDGAME_BONUS.FTN
: 34. EXECUTE.MAC
: 35. SAVE_RESTORE.MAC
: 36. BACKUP_ALPHA.FTN
: 37. BACKUP_BETA.FTN
: 38. FULL_DUMP.FTN
: 39. DUMP_NODE.FTN
: 40. PRINT_BOARD.FTN
: 41. ABORT_GAME.FTN
: 42. BREAK_APART.FTN
: 43. ISWR.FTN
: 44. TIMER.FTN
: 45. WAIT.FTN
: 46. SAVE_GAME.FTN
: 47. RESTORE_GAME.FTN
: 48. GLOBAL_BLOCK.FTN
: 49. SETUP.FTN
: 50. MOVE_NUMBER.FTN
: 51. MOVE_LIST.FTN
: 52. TIMES.FTN
: 53. BEST_MOVE.FTN
: 54. UPDATE_DISPLAY.FTN
: 55. UPDATE_PIECE.FTN
: 56. CHESS_PIECES.FTN
: 57. DISPLAY.FTN
: 58. SQUARE.FTN
: 59. IN_CHECK.FTN
: 60. SEARCH_BOARD.FTN

```
                                : 61. EXECUTE.FTN
                                : 62. SAVE_RESTORE.FTN
                                : 63. ATTACK_DEFEND.FTN
                                : 64. SEARCH_FOR_PIECE.FTN
                                : 65. CHESS.INCL
                                : 66. GAME.REL  - Merged Relocatables
                                : 67. CHESS.LOD - LINK command file
                                : 68. CHESS.CMD - Compile file
                                : 69. CHESS.MRG - Merge file
                                : 70. CHESS.TXT - Documention
                                : 71. CHESS.ALG - Original ALGOL source
                                : 72. CHESS.ASM - Original Assembler source
                                : 73. TRACE.LOG - Output of sample game
                                : 74. CHESS.LINK  Alternate link file
   Operating System(s).....: RTE-6/VM, RTE-A
   Language(s).............: FORTRAN 77, MACRO
   Keywords................: 1. Games
   External Support Req'd...: Terminal Graphics library (TGL.LIB)
   If Re-submission, Reason.: Major re-write
Contributor's Name.........: John L. Anderson Jr.
             Company.......: U.S. Naval Station
             Street........: CSAD, Code 3441
             City..........: Seal Beach
             State.........: CA.
             Zip Code......: 90740
             Phone Number..: (213) 594-7887
             Telex.........:
Contribution Abstract......:

This chess program (Tech) will play chess by generating a 'best move' from
a minimax game tree. The method used is brute force. Although alpha-beta
pruning is utilized, no heuristics are embedded in the program. The game
needs improvements, but can play a fair game of chess. Most of the chess
games on PC's can beat Tech, but some sequences are very interesting.
If you blunder, Tech will show you no mercy. Tech can play fast (depth of 3)
or slow (depth of 5). In the default mode, most moves will take less than
30 seconds so you can complete a game on your lunch hour. Since all the
source code is here you can experiment with the logic behind the moves.
You need a 239x graphics terminal to play the game. The graphics takes
a few minutes to setup up but then things run faster. The relocatables
are merged together in GAMES.REL so if you want to make a change you
must recompile everything.


Additional Documentation....: See CHESS.TXT
```

DUNGEON M060

CDS DUNGEON & DRAGONS GAME

```
Contribution Name..........: DUNGEON
   Title...................: CDS Dungeon & Dragons Game
   File Names..............: 00. Rename transfer file.
                           : 01. DUNGEON.SBMT
                           : 02. DUNGA_CDS.FTN
                           : 03. DUNGA_CDS.REL
                           : 04. DUNGB_CDS.FTN
                           : 05. DUNGB_CDS.REL
                           : 06. DUNGC_CDS.FTN
                           : 07. DUNGC_CDS.REL
                           : 08. DUNGD_CDS.FTN
                           : 09. DUNGD_CDS.REL
                           : 10. DUNGE_CDS.FTN
                           : 11. DUNGE_CDS.REL
                           : 12. DUNGL_CDS.FTN
                           : 13. DUNGL_CDS.LIB
                           : 14. DUNGN_CDS.LOD
                           : 15. DUNGEON.TEXT
                           : 16. DUNGEON.INIT
                           : 17. DUNGEON.HINT
   Operating System.....: RTE-A VC+
   Language(s)..........: FTN77
   Keywords.............: 1. Games
   External Support Req'd...: CDS & VC+
   If Re-submission, Reason.: Bug fixes and security
Contributor's Name.....: John L. Anderson Jr.
             Company...: U.S. Naval Station
             Street....: Code 3441
             City......: Seal Beach
             State.....: CA.
             Country...: USA
             Zip Code..: 90740
             Phone Number..: (213) 594-7887
             Telex.....:
Contribution Abstract.....:

This game was converted to run on the A-series machines using a data base
that is entirely memory resident. The eliminates all disc accesses durning
the game but uses lots of memory (which is cheap nowdays). The program is
much to big to fit except using CDS. The game has not been tested very
much so let me know if you find any problems. No assembly language is
used, so it should be a easy port to the HP 9000 Unix systems. All I/O
is done with FORTRAN read/write statements. The file DUNGEON.INIT must
be in the current working directory before running the program. Several
bug fixes have been made and some restrictions have been made on the
hours the game can be played.

For a bit of history, DUNGEON is a FORTRAN version of ZORK (they said
it couldn't be done). The creators of ZORK started INFOCOM and came
out with ZORK I, II and III. ZORK I is a striped down version of the
original ZORK. DUNGEON does not have everything that the original ZORK
had. Namely it is missing the full parser and the end game puzzle. If
you have a DEC version that is complete (i.e with the end game puzzle)
please send it to INTEREX. The game has been floating around the ARPA net
for years.

Dungeon was created at the Programming Technology Division of the MIT
Laboratory for Computer Science by Tim Anderson, Marc Blank, Bruce
Daniels, and Dave Lebling.  It was inspired by the Adventure game of
Crowther and Woods, and the Dungeons and Dragons game of Gygax
and Arneson.  The original version was written in MDL (alias MUDDLE).
The current version was translated from MDL into FORTRAN by Bob Supnik
of DEC Disk Engineering, and modified for HP 1000 by Tom Hutchinson.
Perhaps I may write an end game puzzle after I can get a perfect score.
```

Additional Documentation....:

If you have not played this game before, try typing OPEN MAILBOX and READ LEAFLET. Lower case letters can be used at anytime. Wizards can do a few of things that mortals cannot do. HELP and INFO are also useful commands. If you want complete help, look at DUNGEON.HINT. It will tell more than you want to know but maybe not as much as you would like.

HACKER M061

RTE-6 SYSTEM INFORMATION PROGRAM

```
Contribution Name.....: HACKER
   Title..............: RTE-6 System Information Program
   File Names.........: 00. Rename transfer file.
                      : 01. HACKER_6.SBMT  Submission file
                      : 02. HACKER_6.FTN - Source file
                      : 03. HACKER_6.REL - Relocatable
                      : 04. HACKER_6.LOD - LINK command
   Operating System(s).....: RTE-6/VM
   Language(s).............: FTN77
   Keywords................: 1. System
                      : 2. Decode
                      : 3. Security
   External Support Req'd...: None
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
             Company...: U.S. Naval Station
             Street....: CSAD Code 3441
             City......: Seal Beach
             State.....: CA.
             Zip Code..: 90740
             Phone Number..: (213) 594-7887
             Telex.....:
Contribution Abstract.....:
```

This program shows you all the things system managers go to so much trouble to keep secret. This program gives you the following:

1. The master security code in decimal, octal and ascii.
   (It even gives you the nonprintable control characters)
2. All users, groups and passwords on the system.
   (That includes MANAGER.SYS password)
3. All FMGR files with negative security codes.
   (The security codes are given too)

There are no comments in the listings so you will have to work a little to figure these routines out. They use some undocumented features. This shows you how unsecure (or insecure) RTE really is. This program really can be put to good use by system managers or HP SE's.

HACKER M062

RTE-A SYSTEM INFORMATION PROGRAM

```
Contribution Name.....: HACKER
   Title..............: RTE-A System Information Program
   File Names.........: 00. Rename transfer file.
                      : 01. HACKER_A.SBMT  Submission file
                      : 02. HACKER_A.FTN - FORTRAN source
                      : 03. HACKER_A.REL - Relocatable
                      : 04. HACKER_A.LOD - LINK command
                      : 05. PASSWORD.DAT
   Operating System(s).....: RTE-A
   Language(s).............: FTN7x
   Keywords................: 1. System
                      : 2. Security
                      : 3. Decode
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: John L. Anderson Jr.
             Company...: U.S. Naval Station
             Street....: Code 3441
             City......: Seal Beach
             State.....: CA.
             Zip Code..: 90740
             Phone Number..: (213) 594-7887
             Telex.....:
Contribution Abstract.....:
```

This program tells you a few things about your RTE-A system your system manager doesn't want you to know. It gives the master security code for file manager files, all FMGR files with negative security codes and some of the logon passwords. On RTE-6/VM it is easy to get all the passwords but on RTE-A the encryption is only one way. Passwords are not unique either. Passwords are from 1 to 16 characters long (but a bug limits it to 14 characters I think), and are folded into a 32 bit floating point number. The algolrithm operates on two characters (one word) at a time. All 1 or 2 character passwords are unique and can be found in a matter of seconds. It takes several minutes to try all 3 and 4 character passwords while it takes several hours to test all 5 and 6 character passwords. More than that takes forever (at least days or months). This program gives you all 1 and 2 character passwords (and users with no password). It also trys 3 and 4 character passwords giving you the option of skipping control characters. Another approach is to read in passwords from a disc file and try them. The file PASSWORD.DAT is used to do this. There are about 8000 entries in the file which takes a matter of seconds to try. You can add anything you can think of to this file. One last approach is to try passwords randomly but it is very unlikely that you'll find any so this program doesn't do that. The main point of this program is to show that RTE-A security is not very good but it is a little better that RTE-6/VM. You can always run program SUPER (or SU) to become a super user and get to anything you want. Keep on hacking.

Additional Documentation....:

If you want passwords that cannot be easily found out, make them at least seven or more characters, don't use ordinary words, use lot's of control characters and don't tell anyone what your password is.

M063

INVOKE

INVOKE A PROGRAM WITH FILE MASK

```
Contribution Name.....: INVOKE
   Title..............: Invoke a Program with File Mask
   File Names.........: 00. Rename transfer file.
                      : 01. INVOKE.SBMT  Submission file
                      : 02. INVOKE.FTN - Source file
                      : 03. INVOKE.REL - Relocatable
                      : 04. INVOKE.LOD - LINK command
   Operating System(s).: RTE-6/VM, RTE-A
   Language(s)........: FTN7x
   Keywords...........: 1. Scheduling
                      : 2. Batch
                      : 3. Filter
   External Support Req'd...:
   If Re-submission, Reason.: Fixed problem with long filenames
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: CSAD Code 3441
            City.......: Seal Beach
            State......: CA.
            Zip Code...: 90740
            Phone Number..: (213) 594-7887
            Telex......:
Contribution Abstract.....:
```

This program will run the specified program every time a file is found matching the file mask. Only the first parameter can be masked. Up to five parameters are allowed. Example runs:

```
CI> Invoke Ftn7x @.ftn 0 -
CI> Invoke Link @.lod +ma +de
CI> Invoke Oldre @.rel
```

M064

TGL

TERMINAL GRAPHICS LIBRARY

```
Contribution Name.....: TGL
   Title..............: Terminal Graphics Library
   File Names.........: 00. Rename transfer file.
                      : 01. TGL.SBMT  Submission file
                      : 02. TGL.FTN - Source file
                      : 03. TGL.REL - Relocatable
                      : 04. TGL.LIB - LINDX'ed library
   Operating System(s).: RTE-6/VM, RTE-A
   Language(s)........: FTN7x
   Keywords...........: 1. Terminal
                      : 2. Graphics
                      : 3. Library
   External Support Req'd...:
   If Re-submission, Reason.: Fixed to work 293x terminals
Contributor's Name.....: John L. Anderson Jr.
            Company....: U.S. Naval Station
            Street.....: CSAD Code 3441
            City.......: Seal Beach
            State......: CA.
            Zip Code...: 90740
            Phone Number..: (213) 594-7887
            Telex......:
Contribution Abstract.....:
This is an old library for drawing graphics on a terminal without the
overhead of DGL. It has been updates slightly to work with 239x terminals
instead of 264x terminals. It is used by the CHESS and STARTREK programs.
```

M065

DLICI

LIST DIRECTORY CHANGES BETWEEN SPECIFIED TIMES

```
Contribution Name.....: DLICI
   Title..............: LIST DIRECTORY CHANGES BETWEEN SPECIFIED TIMES
   File Names.........: 000. Rename Transfert File
                      : 001. DLICI.SBMT      Program submission
                      : 002. DLICI.FTN       Source program
                      : 003. DLICI.HLP       User documentation
                      : 004. MSRT.FTN        Sort program
                      : 005. DLICI.REL
                      : 006. MSRT.REL
                      : 007. INSTLDLICI.CMD
                      : 008  MSRT_CDS.FTN    CDS version of MSRT.FTN
                      : 009  DLICI_CDS.FTN   CDS version of DLICI.FTN
                      : 010  MSRT_CDS.REL
                      : 011  DLICI_CDS.REL
                      : 012  MSRT_CDS.LOD
                      : 013  DLICI_CDS.LOD
   Operating system(s).: RTE-A, RTE-6VM
   Language(s)........: FTN7X
   Keywords...........: 1. CI
                      : 2. DIRECTORY
   External Support Req'd...: DL.RUN::PROGRAMS
   If Re-submission, Reason.: Fixed bugs
Contributor's Name.....: Joseph de Jamblinne
            Company....: Trimetal Paint Co.
            Street.....: Emmanuellaan 1
            City.......: Machelen
            State......:
            Country....: Belgium
            Zip Code...: B-1830
            Phone Number..: (322) 251 29 91
            Telex......: 23259 Trimet-B
Program Abstract.....:
        This program allows the system manager to know which are the new
and the deleted files in a directory between two times.
```

CHD M066

CHANGE DIRECTORY

```
Contribution Name.....: CHD
   Title..............: CHANGE DIRECTORY
   File Names.........: 000. Rename Transfert File
                      : 001. CHD.SBMT        Program submission
                      : 002. CHD.FTN         Source program
                      : 003. CHD.HLP         User documentation
                      : 004. INSTLCHD.CMD
   Operating system(s)...: RTE-A, RTE-6VM
   Language(s)........: FTN7X
   Keywords...........: 1. CI
                      : 2. DIRECTORY
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Joseph de Jamblinne
            Company....: Trimetal Paint Co.
            Street.....: Emmanuellaan 1
            City.......: Machelen
            State......:
            Country....: Belgium
            Zip Code...: B-1830
            Phone Number..: (322) 251 29 91
            Telex......: 23259 Trimet-B
Program Abstract.....:
      This program displays and change of directory with always the same
notation in $RETURN_S. The use of .. is allowed.

Additional documentation: In source file.
```

WHR M067

SESSION ACTIVITY REPORT UTLITY

```
Contribution Name.....: WHR
   Title..............: Session Activity Report Utlity
   File Names.........: 000. Rename Transfert File
                      : 001. WHR.SBMT      Program submission
                      : 002. WHR.FTN       Source program for rev. < 5.0
                      : 003. WHR.HLP       User documentation
                      : 004. INSTLWHR.CMD  installation file
                      : 005. WHR.LOD       load file
                      : 006. WHR_50.FTN    Source program for 5.0
                      : 007. WHR.INCL      Some routines for WHR(_50)
                      : 008. WHR_50.HLP    User documentation WHR_50
   Operating system(s)...: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. SESSION
                      : 2. ACCOUNTING
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Joseph de Jamblinne, Steve Steel
            Company....: Trimetal Paint Co.
            Street.....: Emmanuellaan 1
            City.......: Machelen
            State......:
            Country....: Belgium
            Zip Code...: B-1830
            Phone Number..: (322) 251 29 91
            Telex......: 23259 Trimet-B
Program Abstract.....:
      This program is a more friendly WH. Before compiling this program
a change MUST be done in source code to alter the value of $IDA, #ID# and
#IDZ. The good value of these are in a generation listing.

Additional documentation: In help and source file.
```

WHATREV M068

SEARCH REVISION CODE IN A PROGRAM FILE

```
Contribution Name.....: WHATREV
   Title..............: SEARCH REVISION CODE IN A PROGRAM FILE
   File Names.........: 000. Rename Transfert File
                      : 001. WHATREV.SBMT    Program submission
                      : 002. WHATREV.FTN     Source program
                      : 003. WHATREV.HELP    User documentation
                      : 004. WHATREV.REL
                      : 005. INSTLWHATREV.CMD
   Operating system(s)...: RTE-A, RTE-6VM
   Language(s)........: FTN7X
   Keywords...........: 1. PROCEDURES
                      : 2. SECURITY
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Joseph de Jamblinne
            Company....: Trimetal Paint Co.
            Street.....: Emmanuellaan 1
            City.......: Machelen
            State......:
            Country....: Belgium
            Zip Code...: B-1830
            Phone Number..: (322) 251 29 91
            Telex......: 23259 Trimet-B
Program Abstract.....:
It is some time useful (especially when working with more than one computer
with the same program) to know which revision is running. With a simple rule
of programmation and this program, it is now possible.

Additional documentation: In help and source file.
```

M069

MUXD

DISPLAY/SET 12040D MULTIPLEXOR PORT STATUS

```
Contribution Name.....: MUXD
   Title..............: Display/set 12040D multiplexor port status
   File Names.........: 000. Rename Transfert File
                      : 001. MUXD.SBMT       Program submission
                      : 002. MUXD.FTN        Source program
                      : 003. >MUXD           User documentation
                      : 004. INSTLMUXD.CMD
   Operating system(s).: RTE-A
   Language(s)........: FTN7X
   Keywords...........: 1. MULTIPLEXOR
                      : 2. STATUS
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Joseph de Jamblinne
            Company...: Trimetal Paint Co.
            Street....: Emmanuellaan 1
            City......: Machelen
            State.....:
            Country...: Belgium
            Zip Code..: B-1830
            Phone Number..: (322) 251 29 91
            Telex.....: 23259 Trimet-B
Program Abstract.....:
        This program allows the operator to interactively set parameter of
a D-mux LU such as baud rate, parity, handshake, type-ahead mode, and so
on.(When running modification a ? will give more explanation on the opera-
tion.)
It also displays the current configuration of a mux LU.
```

M070

BIT_MAP_ANALYSIS

ANALYZE BIT MAP OF CI VOLUMES

```
Contribution Name.....: BIT MAP ANALYSIS
   Title..............: ANALYZE BIT MAP OF CI VOLUMES
   File Names.........:00. Rename Transfer File
                      :01. BIT_MAP_ANALYSIS.SBMT
                      :02. ?BITMP
                      :03. BIT_MAP_ANAL.FTN
                      :04. BIT_MAP_ANAL.LOD
                      :05. BIT_MAP_ANAL.CMD
   Operating System(s).:rte-6 & rte-a
   Language(s)........:fortran 77
   Keywords...........: 1. CI
                      : 2. disc
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Manfred Baer
            Company...: ETH Zurich
            Street....: Honggerberg
            City......: Zurich
            State.....:
            Country...: Switzerland
            Zip Code..: 8093
            Phone Number..: 1-377 2627
            Telex.....: 823480 eheb
Contribution Abstract.....: The program searches the bit map table of
                            CI volumes and reports the number of times
                            a given file size will fit on the volume
                            either on the terminal or on file.
                            Optionally the complete bit map is stored
                            on a disc file.
```

M071

AGING ON RTE-A

RTE-6/VM LIKE PARTITION PRIORITY AGING ON RTE-A

```
Contribution Name.....:  AGING on RTE-A
   Title..............: RTE-6/VM like partition priority aging on RTE-A
                       Also a good example in system programming in
                       Fortran with FTN7X
   File Names.........:00. Rename Transfer File
                      :01. AGING.SBMT
                      :02. AGING.FTN
                      :03. AGING.REL
   Operating System(s).:    RTE-A
   Language(s)........:    FTN7X
   Keywords...........: 1. partition
                      : 2. system
                      : 3. system_tables
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....:  Manfred Hoeckendorff
            Company...:  Hewlett Packard
            Street....:  Kapstadtring 5
            City......:  Hamburg
            State.....:
            Country...:  Germany
            Zip Code..:  D2000
            Phone Number..:
            Telex.....:
Contribution Abstract.....:  A small program showing how to do system
                             programming in Fortran with FTN7X and it
                             does partition priority aging for those
                             programs which are not in the scheduled
                             list and resets the partition priority
                             to the program priorty if in the scheduled
                             list.The effect is that all those programs
                             hanging in memory class suspended with
                             high priority for hours and days like
                             DS-Monitors ... will be swaped after
                             some time.
Additional Documentation....:  Look also to the AG-Systemcomand in RTE-6
```

XACTNS M072

FILE COUNTER FOR QDM/1000

```
Contribution Name...........: XACTNS
   Title....................: File counter for QDM/1000
   File Names..............:00. Rename Transfer File
                           :01. XACTNS.SBMT
                           :02. ?XACTNS  Help file
                           :03. XACTNS.FTN
                           :04. XACTNS.REL
                           :05. XACTNS.LOD
                           :06. XACTNS.CMD
   Operating system(s).....:RTEA 5.0
   Uses hierarchical files?.:
   Language(s).............:FORTRAN 77
   Keywords................: 1. QDM
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........: Markus Bruetsch
              Company.......: Pacesetter Siemens
              Street........: 12740 San Fernando Rd.
                           : F1S/582-N1
              City..........: Sylmar
              State.........: Calif
              Country.......: USA
              Zip Code......: 91342
              Phone Number..: (818) 362-6822
Program Abstract............:
This routine counts all the !Rxxxxxx and !Bxxxxxx QDM spool files in the
/QDM_XACTN_DATA directory and reports them to the operator.
AddItionaI Documentation....: See the source code
```

MASS M073

MULTI RUN-PROGRAM WITH FILE-MASK

```
Contribution Name...........: MASS
   Title....................: Multi run-program with file-mask
   File Names..............:00. Rename Transfer File
                           :01. mass.sbmt
                           :02. mass.ftn
                           :03. mass.rel
   Operating System(s).....: RTE 6  RTE A
   Language(s).............: FTN7x
   Keywords................: 1. Filter
                           : 2. CI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........: Matton Jean-Louis
              Company.......: Univ. Cath. Louvain
              Street........: Av. Hippocrate 55/5560
              City..........: Bruxelles
              State.........:
              Country.......: Belgium
              Zip Code......: B-1200
              Phone Number..: 32 2 7645561
              Telex.........: UCLWOL B 23722
Contribution Abstract.......: Program MASS works basically just like
      program specified in parameter 1, except you can specify a file-mask
      in the runstring instead of just one file.  The specified program
      will be run multiple times in sequence for each file matching
      the filemask.
      i.e. ru MASS progname filemask [par for progname]
Additional Documentation....: Run MASS without parameters (ru mass)
      Note: this program is a  generalisation of
            MED (Seppo Pietikainen HP Finland)
```

MENU M074

MENU BUILDER

```
Contribution Name...........: MENU
   Title....................: MENU BUILDER
   File Names..............: 00. Rename Transfer File
                           : 01. MENU.SBMT
                           : 02. MENU.FTN
                           : 03. MENU.REL
                           : 04. MENU.LOD
                           : 05. MENU.DOC
                           : 06. MENU.MAKE
                           : 07. DL.PNL
                           : 08. SP.PNL
                           : 09. WH.PNL
                           : 10. SUB.PNL
                           : 11. C&L.PNL
   Operating System(s).....: RTE-A,RTE-6
   Language(s).............: FTN7X
   Keywords................: 1. MENU
                           : 2. SHELL
   External Support Req'd...: None
   If Re-submission, Reason.: Enhancements
Contributor's Name..........: Michael Johnson & Tom Penninga
              Company.......: Rochester Product Division
              Street........: 2100 Burlingame
              City..........: Grand Rapids
              State.........: Michigan
              Country.......: USA
              Zip Code......: 49501
              Phone Number..: (616) 247-5969
              Telex.........:
Program Abstract............: This utility will take a user built menu
and build a menu/command scheduler from it.  User defines if system
returns to menu or to CI.  Utility allows easy operation of similar tasks
such as spooling, dl, edit/link/compile, etc.  See Menu.Doc for several
examples.  Several sample menu panels are included.  Simply enter MENU WH
or MENU DL for a quick scan of how it works. Enhancements allow sub-menus,
CI commands from the menu, global variables to be pasted into the menu, and
```

immediate return from menu.

Additional Documentation....:
See Menu.DOC for examples of how to use it.

M075

DATE — RETURN DATE/TIME TO CI

```
Contribution Name...........: DATE
   Title....................: Return Date/Time to CI
   File Names..............:00. Rename Transfer File
                           :01. DATE.SBMT
                           :02. DATE.FTN     (source file)
                           :03. DATE.HELP    (help file)
                           :04. DATE.REL     (relocatable file)
                           :05. DATE.MAKE    (make file)
                           :06. DATE.LOD     (load file)
   Operating System.....: RTE-A, RTE-6/vm
   Language(s)..........: Fortran
   Keywords.............: 1. DATE
                        : 2. TIME
                        : 2. CI
   External Support Req'd...:
   If Re-submission, Reason.: Bug Fixes to San Jose Swap Version
Contributor's Name.....: Paul F. Gerwitz
            Company....: Eastman Kodak Company
            Street.....: MSD, Bldg.56/3, Kodak Park
            City.......: Rochester
            State......: New York
            Country....: USA
            Zip Code...: 14650
            Phone Number..: 716-477-3067
            Telex......:
Program Abstract..........:

  This program is a handy utility to return the Date and Time to CI.
  We use it in standard overnight backup procedure to determine what
  type of backup to run on a specific day.

  Thanks to Don Clapp for Bug Report

Additional Documentation....: See Help file
```

M076

DP — DISPLAY PARAMETERS IN VARIOUS FORMATS

```
Contribution Name...........: DP
   Title....................: Display parameters in various formats
   File Names..............:00. Rename Transfer File
                           :01. DP.SBMT
                           :02. DP.FTN     (source file)
                           :03. DP.HELP    (help file)
                           :04. DP.REL     (relocatable file)
                           :05. DP.MAKE    (make file)
                           :06. DP.LOD     (load file)
   Operating System.....: RTE-A, RTE-6/vm
   Language(s)..........: Fortran
   Keywords.............: 1. CI
                        : 2. TOOLS
   External Support Req'd...:
   If Re-submission, Reason.: Bug Fixes, Enhancements to San Jose Swap Ver.
Contributor's Name.....: Paul F. Gerwitz
            Company....: Eastman Kodak Company
            Street.....: MSD, Bldg.56/3, Kodak Park
            City.......: Rochester
            State......: New York
            Country....: USA
            Zip Code...: 14650
            Phone Number..: 716-477-3067
            Telex......:
Program Abstract..........:

  This program is a handy utility to display those nasty CI globals
  that usually are displayed in unuseful formats

Additional Documentation....: See Help file
```

M077

KERMIT — KERMIT 1.99C - MACHINE-TO-MACHINE FILE TRANSFER

```
Contribution Name...........: KERMIT
   Title....................: KERMIT 1.99c - Machine-to-machine file transfer
   File Names..............:00. Rename Transfer File
                           :01. KERMIT.SBMT     Submission file
                           :02. *COPY           Copyright info about KERMIT
                           :03. *INFO           Other KERMITs available
                           :04. ADDENDUM        KERMIT-RTE user info
                           :05. PROTO.DOC       KERMIT Protocol Manual
                           :06. USER.DOC        KERMIT User's Manual
                           :07. KCMNDS.ftni     Common include-file
                           :08. KCONCW.ftni     Common include-file
                           :09. KERCMD.ftni     Common include-file
                           :10. KERCNF.ftni     Common include-file
                           :11. KERCOM.ftni     Common include-file
                           :12. KERDBG.ftni     Common include-file
                           :13. KERFIL.ftni     Common include-file
                           :14. KERSTA.ftni     Common include-file
                           :15. KERMIT.ISTL     Installation instructions
                           :16. K6SUBS.FTN      RTE-6 KERMIT-library source
                           :17. KASUBS.FTN      RTE-A KERMIT-library source
                           :18. KERMIT.FTN      KERMIT source
                           :19. $K6SUBS.LIB     KERMIT library for RTE-6
                           :20. $KASUBS.LIB     KERMIT library for RTE-A
                           :21. KERMIT.LOD      Link command file for KERMIT
                           :22. KERMIT.REL      KERMIT object (A or 6)
```

```
                                :23. KERMIT.HLP     Indexed help-file
                                :24. KERMIT.TEXT    "Source" for KERMIT.HLP
   Operating System.....: RTE-6 or RTE-A, revision c.83 and later
   Language(s)..........: FTN7X
   Keywords.............: 1. File_transfer
                        : 2. Data_comm
                        : 3. Network
   External Support Req'd...: 12792B/C (RTE-6) or 12040B/C/D (RTE-A) mux
   If Re-submission, Reason.: Bug fixes and enhancements
Contributor's Name......: 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) 457-5358
             Telex......:
Contribution Abstract.....: KERMIT-RTE transfers files between an HP-1000
 and any other machine equipped with a KERMIT program over RS-232 lines (on
 a 12040B/C/D or 12792B/C mux), and also provides basic terminal-emulation.
 See KERMIT.ISTL for a detailed list of features and unsolved problems in
 this version.
Additional Documentation....: See KERMIT.ISTL for installation instructions.
```

SKETCH **M078**

SKETCH REV. 5.1 (PART 1 OF 9)

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 1 of 9)
   File Names.........:000. Rename Transfer File
                      :001. SKETCH.SBMT (submission file)
                      :002. README
                      :003. BRUNO CONVERTERS.DOC
                      :004. MAKEFILE
                      :005. MANUAL.1000
                      :006. PRODUCE_TAPE.TF
                      :007. SK.2397
                      :008. SK.2623
                      :009. SK.2627
                      :010. SK.DEVS
                      :011. SK.WSPS
                      :012. SK.HELP
                      :013. SKPLOT.HELP
                      :014. SKSUBS.LIB
                      :015. SKSUBS.MERG
                      :016. ADD_ARC_NODE.FTN
                      :017. ADD_ARC_TO_P.FTN
                      :018. ADD_CURVE_NO.FTN
                      :019. ADD_CURVE_TO.FTN
                      :020. ADD_EXTENT.FTN
                      :021. ADD_KNOTS.FTN
                      :022. ADD_LINE_NOD.FTN
                      :023. ADD_MACRO.FTN
                      :024. ADD_MARKER_N.FTN
                      :025. ADD_NODE.FTN
                      :026. ADD_POINT_TO.FTN
                      :027. ADD_POLY_MEM.FTN
                      :028. ADD_POLY_NOD.FTN
                      :029. ADD_STACK.FTN
                      :030. ADD_TEXT_NOD.FTN
                      :031. ADD_TO_POLY.FTN
                      :032. ALLOCATE_HEA.FTN
                      :033. ALLOCATE_SPA.FTN
                      :034. ALPHA_FIX.FTN
                      :035. ANGLE.FTN
                      :036. APICK_AFFECT.FTN
                      :037. ARCHIVE2SK.FTN
                      :038. ARC_ENDS.FTN
                      :039. ARC_LIMITS.FTN
                      :040. ARC_MODE.FTN
                      :041. ATTACH_TO_CH.FTN
                      :042. BASENAME.FTN
                      :043. BFTSK.FTN
                      :044. BLOCK_READ.FTN
                      :045. BSTSK.FTN
                      :046. CALC_ROTATE.FTN
                      :047. CALC_START.FTN
                      :048. CALC_STRETCH.FTN
                      :049. CALC_TEXT_EN.FTN
                      :050. CALC_TEXT_OR.FTN
                      :051. CHANGE_CMODE.FTN
                      :052. CHANGE_CURVE.FTN
                      :053. CHANGE_GEN_A.FTN
                      :054. CHANGE_LIMIT.FTN
                      :055. CHANGE_POLY_.FTN
                      :056. CHANGE_TEXT_.FTN
                      :057. CHANGE_WINDO.FTN
                      :058. CLEAR_ALL_SE.FTN
                      :059. CLEAR_ALPHA.FTN
                      :060. CLEAR_DATA_B.FTN
                      :061. CLONE.FTN
                      :062. CLONE_AREA.FTN
                      :063. CLONE_SEGMEN.FTN
                      :064. CLOSE_CONSTR.FTN
                      :065. CLOSE_CURVE_.FTN
                      :066. CLOSE_PICK_A.FTN
                      :067. CLOSE_POLY_N.FTN
                      :068. CLOSE_TEXT_N.FTN
                      :069. COLOR_TABLE_.FTN
                      :070. CONSTRUCT_AR.FTN
                      :071. CONSTRUCT_CO.FTN
                      :072. CONSTRUCT_LI.FTN
                      :073. CONSTRUCT_LS.FTN
                      :074. CONSTRUCT_MA.FTN
                      :075. CONSTRUCT_PK.FTN
                      :076. COPY_ATTRIBU.FTN
                      :077. COPY_NODE.FTN
                      :078. CREATE_DRWG.FTN
                      :079. CREATE_DRWG_.FTN
                      :080. CURVE_MODE.FTN
                      :081. DEALLOCATE_N.FTN
                      :082. DEALLOCATE_S.FTN
                      :083. DEFAULT.FTN
```

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                                :084. DELETE_KNOTS.FTN
                                :085. DELETE_NODE.FTN
                                :086. DELETE_SPACE.FTN
                                :087. DELETE_UNCHA.FTN
                                :088. DRAW_ALL_CON.FTN
                                :089. DRAW_ALL_SEG.FTN
                                :090. DRAW_ARC_SEG.FTN
                                :091. DRAW_COLOR.FTN
                                :092. DRAW_COLOR_T.FTN
                                :093. DRAW_CONSTRU.FTN
                                :094. DRAW_CURVE_S.FTN
                                :095. DRAW_ELIPSE.FTN
                                :096. DRAW_GEN_ATT.FTN
                                :097. DRAW_GRID.FTN
                                :098. DRAW_KNOTS.FTN
                                :099. DRAW_LINE_SE.FTN
   Operating System.....:  RTE-A/VC+
   Language(s).........:  FTN7X
   Keywords............: 1. Graphics
                        : 2. Plotting
                        : 3. Figures
   External Support Req'd...:
   If Re-submission, Reason.: New version with additional features
Contributor's Name.....: Philip Walden
            Company....: Hewlett-Packard
            Street.....: 11000 Wolfe Road
                      : M/S 42UM
            City.......: Cupertino
            State......: CA
            Country....: USA
            Zip Code...: 95014
            Phone Number..: (408) 257-7000
Program Abstract.....:
 This is the latest version of the popular SKETCH program.

 SKETCH is a general purpose graphics editor.  It allows
 users to create source graphics documents, store them,
 retrieve them for further editing, and plot hard copy final
 documents.

 SKETCH has been found useful with several tasks:

       Transparencies for presentations
       Technical illustrations
       Floor plan layouts
       Simple drafting
       Schematic drawings
       Report Covers

 Unlike many previous graphics presentation packages, SKETCH
 is an interactive graphics application and is much easier to
 use if a pointing device such as a mouse or a graphics
 tablet is available. However, a pointing device is not
 necessary, since commands can be entered almost as fast from
 the keyboard.  SKETCH also takes advantage of the device
 independent features of AGP (HP's Advanced Graphics Pack-
 age), meaning that SKETCH should work on present and future
 AGP supported work stations and hard copy devices.
Additional Documentation....: MANUAL.1000
```

SKETCH M079

SKETCH REV. 5.1 (PART 2 OF 9)

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 2 of 9)
   File Names.........:00. Rename Transfer File
                      :01. SKETCH2.SBMT
                      :02. DRAW_POLY_AT.FTN
                      :03. DRAW_SCREEN.FTN
                      :04. DRAW_SEGMENT.FTN
                      :05. DRAW_SEGS.FTN
                      :06. DRAW_STYLE.FTN
                      :07. DRAW_STYLE_T.FTN
                      :08. DRAW_TEXT_AT.FTN
                      :09. DRAW_TEXT_SE.FTN
                      :10. DRWG_FUNCTIO.FTN
                      :11. DRWG_TYPE.FTN
                      :12. D_RESOLUTION.FTN
                      :13. EDIT.FTN
                      :14. EDIT_AREA.FTN
                      :15. EDIT_BCKGRND.FTN
                      :16. EDIT_COLOR_T.FTN
                      :17. EDIT_CURVE_A.FTN
                      :18. EDIT_CURVE_E.FTN
                      :19. EDIT_GEN_ATT.FTN
                      :20. EDIT_GROUP.FTN
                      :21. EDIT_POLY_AT.FTN
                      :22. EDIT_SEGMENT.FTN
                      :23. EDIT_STYLE_T.FTN
                      :24. EDIT_TEXT_AT.FTN
                      :25. EXEC_PROG.FTN
                      :26. EXPAND_WINDO.FTN
                      :27. FIND_GROUP.FTN
                      :28. FONT_LEN_FAC.FTN
                      :29. FPEEK.FTN
                      :30. FRAME.FTN
                      :31. FTNERROR.FTN
                      :32. FUNCTION_TYP.FTN
                      :33. FUNC_HILITED.FTN
                      :34. FUNC_VIS.FTN
                      :35. GET_ALPHA_DE.FTN
                      :36. GET_ARC.FTN
                      :37. GET_ARC_DATA.FTN
                      :38. GET_BCKGRND_.FTN
                      :39. GET_BUTTON.FTN
                      :40. GET_BUTTON_D.FTN
                      :41. GET_COLOR.FTN
                      :42. GET_COLOR_MO.FTN
                      :43. GET_CURVE_LI.FTN
                      :44. GET_CURVE_SI.FTN
                      :45. GET_DISPLAY_.FTN
                      :46. GET_DRWG_C_T.FTN
                      :47. GET_DRWG_LIM.FTN
                      :48. GET_DRWG_NAM.FTN
```

```
                                    :49. GET_DRWG_S_T.FTN
                                    :50. GET_ENDS.FTN
                                    :51. GET_EXTENT.FTN
                                    :52. GET_FLAGS.FTN
                                    :53. GET_GEN_ATTR.FTN
                                    :54. GET_INS_MRG_.FTN
                                    :55. GET_INT.FTN
                                    :56. GET_INT_REC.FTN
                                    :57. GET_LEN.FTN
                                    :58. GET_LINE.FTN
                                    :59. GET_LINE_DAT.FTN
                                    :60. GET_LOCATOR_.FTN
                                    :61. GET_MACRO_LI.FTN
                                    :62. GET_MARKER.FTN
                                    :63. GET_MODEL_MA.FTN
                                    :64. GET_MOD_COLO.FTN
                                    :65. GET_NEXT.FTN
                                    :66. GET_NO_COLOR.FTN
                                    :67. GET_NO_POLYG.FTN
                                    :68. GET_NO_STYLE.FTN
                                    :69. GET_NO_TEXT_.FTN
                                    :70. GET_PLACE_OP.FTN
                                    :71. GET_POINT_FR.FTN
                                    :72. GET_POINT_ON.FTN
                                    :73. GET_POLY_ATT.FTN
                                    :74. GET_POLY_LIM.FTN
                                    :75. GET_POLY_SIZ.FTN
                                    :76. GET_PREVIOUS.FTN
                                    :77. GET_REAL.FTN
                                    :78. GET_REAL_REC.FTN
                                    :79. GET_REC.FTN
                                    :80. GET_SEGMENT.FTN
                                    :81. GET_STYLE.FTN
                                    :82. GET_TEXT_ATT.FTN
                                    :83. GET_TEXT_BOX.FTN
                                    :84. GET_TEXT_DAT.FTN
                                    :85. GET_TEXT_LIM.FTN
                                    :86. GET_TEXT_LIN.FTN
                                    :87. GET_TRGT_TAB.FTN
                                    :88. GET_TYPE.FTN
                                    :89. GHOME.FTN
                                    :90. GLOB_SPACE.FTN
                                    :91. GRID_CONTROL.FTN
                                    :92. GRID_SPACING.FTN
                                    :93. GROUP_EDIT_I.FTN
                                    :94. GROUP_MODE.FTN
                                    :95. HILITE.FTN
                                    :96. HSL_TO_RGB.FTN
                                    :97. IMODE.FTN
                                    :98. IMODE2.FTN
                                    :99. DRAW_MARKER_.FTN
    Operating System.....:  RTE-A/VC+
    Language(s)..........:  FTN7X
    Keywords.............: 1. Graphics
                        : 2. Figures
                        : 3. Plotting
    External Support Req'd...:
    If Re-submission, Reason.: New version with additional features
Contributor's Name.......: Philip Walden
            Company......: Hewlett-Packard
            Street.......: 11000 Wolfe Road
                        : M/S 42UM
            City.........: Cupertino
            State........: CA
            Country......: USA
            Zip Code.....: 95014
            Phone Number..: (408) 257-7000
Program Abstract.........: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000
```

SKETCH

SKETCH REV. 5.1 (PART 3 OF 9)

M080

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 3 of 9)
   File Names.........:00. Rename Transfer File
                      :01. SKETCH3.SBMT
                      :02. INIT_DISPLAY.FTN
                      :03. INIT_WS_DATA.FTN
                      :04. INSERT.FTN
                      :05. INSERT_DRWG.FTN
                      :06. INSERT_SPACE.FTN
                      :07. INSIDE_WINDO.FTN
                      :08. IN_ALPHA.FTN
                      :09. IN_MENU.FTN
                      :10. JEDIT.FTN
                      :11. JEDOF.FTN
                      :12. JINPUT.FTN
                      :13. JWRITL.FTN
                      :14. JWRITM.FTN
                      :15. JWRITP.FTN
                      :16. JWRITS.FTN
                      :17. K11776SDF_CDS.FTN
                      :18. K4222NTB_CDS.FTN
                      :19. K6141PAG_CDS.FTN
                      :20. KEYBOARD_INP.FTN
                      :21. KURV1.FTN
                      :22. KURV2.FTN
                      :23. KURVP1.FTN
                      :24. KURVP2.FTN
                      :25. LINE_MODE.FTN
                      :26. LOAD_COLOR_T.FTN
                      :27. LOAD_STYLE_T.FTN
                      :28. LOCATE_POINT.FTN
                      :29. MAIN.FTN
                      :30. MASH.FTN
                      :31. MASH_MACRO.FTN
                      :32. MATRIX_MULT.FTN
                      :33. MENUFUNC.FTN
                      :34. MERGE.FTN
                      :35. MERGE_DRWG.FTN
                      :36. METHEUS_FIX.FTN
                      :37. MIN_MAX.FTN
                      :38. MOVE.FTN
```

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                                    :39. MOVE_KNOTS.FTN
                                    :40. MOVE_NODE.FTN
                                    :41. NEAREST_TO.FTN
                                    :42. OPEN_CONSTRU.FTN
                                    :43. OPEN_CURVE_N.FTN
                                    :44. OPEN_CURVE_R.FTN
                                    :45. OPEN_DRWG_FI.FTN
                                    :46. OPEN_PICK_AR.FTN
                                    :47. OPEN_POLY_NO.FTN
                                    :48. OPEN_TEXT_NO.FTN
                                    :49. PAN.FTN
                                    :50. PICK_SEGMENT.FTN
                                    :51. POLAR_MINMAX.FTN
                                    :52. POLYGON_MODE.FTN
                                    :53. POLYSET_MODE.FTN
                                    :54. POP_STACK.FTN
                                    :55. PSTYLE_TABLE.FTN
                                    :56. PURGE.FTN
                                    :57. PURGE_ALL_SE.FTN
                                    :58. PURGE_CONSTR.FTN
                                    :59. PURGE_GEN_AT.FTN
                                    :60. PURGE_GRID.FTN
                                    :61. PURGE_NODE.FTN
                                    :62. PURGE_POLY_A.FTN
                                    :63. PURGE_SEG.FTN
                                    :64. PURGE_STACK.FTN
                                    :65. PURGE_TABLE.FTN
                                    :66. PURGE_TEXT_A.FTN
                                    :67. PUSH_STACK.FTN
                                    :68. READ_DATA.FTN
                                    :69. READ_DRWG.FTN
                                    :70. READ_DRWG_NA.FTN
                                    :71. READ_GROUP.FTN
                                    :72. READ_INT.FTN
                                    :73. READ_INT_DAT.FTN
                                    :74. READ_ITEM.FTN
                                    :75. REALTODECIMA.FTN
                                    :76. RECALCULATE_.FTN
                                    :77. RECALC_ALL_L.FTN
                                    :78. RECALC_ATTRI.FTN
                                    :79. RECALC_TEXT_.FTN
                                    :80. REFRESH_ATTR.FTN
                                    :81. REFRESH_COLO.FTN
                                    :82. REFRESH_CURV.FTN
                                    :83. REFRESH_DISP.FTN
                                    :84. REFRESH_GEN_.FTN
                                    :85. REFRESH_POLY.FTN
                                    :86. REFRESH_STYL.FTN
                                    :87. REFRESH_TEXT.FTN
                                    :88. REPLACE_DRWG.FTN
                                    :89. RES.FTN
                                    :90. RESET_WINDOW.FTN
                                    :91. RGB_TO_HSL.FTN
                                    :92. ROTATE.FTN
                                    :93. ROUND.FTN
                                    :94. SAVE_ARC.FTN
                                    :95. SAVE_CURVE_A.FTN
                                    :96. SAVE_HILITES.FTN
                                    :97. SAVE_IN_UNCH.FTN
                                    :98. INITA.FTN
                                    :99. INITD.FTN
   Operating System.....:  RTE-A/VC+
   Language(s)..........:  FTN7X
   Keywords.............: 1. Graphics
                          : 2. Figures
                          : 3. Plotting

   External Support Req'd...:
   If Re-submission, Reason.: New version with additional features
Contributor's Name.....: Philip Walden
             Company...: Hewlett-Packard
             Street....: 11000 Wolfe Road
                       : M/S 42UM
             City......: Cupertino
             State.....: CA
             Country...: USA
             Zip Code..: 95014
             Phone Number..: (408) 257-7000
Program Abstract.....: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000
```

M081

SKETCH

SKETCH REV. 5.1 (PART 4 OF 9)

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 4 of 9)
   File Names.........:00. Rename Transfer File
                      :01. SKETCH4.SBMT
                      :02. SAVE_TEXT_AT.FTN
                      :03. SAVE_TEXT_LI.FTN
                      :04. SCHED_PLOT.FTN
                      :05. SCREEN_READ_.FTN
                      :06. SCREEN_VIS.FTN
                      :07. SDINT.FTN
                      :08. SEDEV.FTN
                      :09. SEGMENT_EXIS.FTN
                      :10. SET_ALPHA_LO.FTN
                      :11. SET_DIDDF.FTN
                      :12. SET_FONT.FTN
                      :13. SET_FST_POLY.FTN
                      :14. SET_LIMITS.FTN
                      :15. SET_POLY_POS.FTN
                      :16. SET_WINDOW.FTN
                      :17. SHOW.FTN
                      :18. SK1000.FTN
                      :19. SK2ARCHIVE.FTN
                      :20. SKIP_POLY_RE.FTN
                      :21. SKIP_READ.FTN
                      :22. SKPLU.FTN
                      :23. SLEN.FTN
                      :24. SMAXV.FTN
                      :25. SNAP.FTN
                      :26. SPSUB.FTN
                      :27. STRETCH.FTN
                      :28. SYSTEM_MODE.FTN
```

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                                    :29. TERMD.FTN
                                    :30. TEXT_LEN.FTN
                                    :31. TEXT_MODE.FTN
                                    :32. TOGGLE_ALTER.FTN
                                    :33. TOGGLE_APICK.FTN
                                    :34. TOGGLE_DIGIT.FTN
                                    :35. TOGGLE_FAST_.FTN
                                    :36. TOGGLE_FST_P.FTN
                                    :37. TOGGLE_GRID.FTN
                                    :38. TOGGLE_KEYBO.FTN
                                    :39. TOGGLE_PICK_.FTN
                                    :40. TOGGLE_SNAP.FTN
                                    :41. TRANSFORM_AR.FTN
                                    :42. TRANSFORM_CU.FTN
                                    :43. TRANSFORM_LI.FTN
                                    :44. TRANSFORM_OB.FTN
                                    :45. TRANSFORM_PO.FTN
                                    :46. TRANSFORM_SE.FTN
                                    :47. TRANSFORM_TE.FTN
                                    :48. UNIQPATH.FTN
                                    :49. UNPURGE.FTN
                                    :50. UPD_ARC_DATA.FTN
                                    :51. UPD_COLOR.FTN
                                    :52. UPD_COLOR_MO.FTN
                                    :53. UPD_DRWG_LIM.FTN
                                    :54. UPD_DRWG_NAM.FTN
                                    :55. UPD_EXTENT.FTN
                                    :56. UPD_FLAGS.FTN
                                    :57. UPD_GEN_ATTR.FTN
                                    :58. UPD_INT.FTN
                                    :59. UPD_INT_REC.FTN
                                    :60. UPD_LINE_DAT.FTN
                                    :61. UPD_LOCP.FTN
                                    :62. UPD_MACRO_LI.FTN
                                    :63. UPD_MODEL_MA.FTN
                                    :64. UPD_NEXT.FTN
                                    :65. UPD_NO_POLYG.FTN
                                    :66. UPD_NO_TEXT_.FTN
                                    :67. UPD_POINT_TO.FTN
                                    :68. UPD_POLY_ATT.FTN
                                    :69. UPD_PREVIOUS.FTN
                                    :70. UPD_PT_TO_CU.FTN
                                    :71. UPD_REAL.FTN
                                    :72. UPD_REAL_REC.FTN
                                    :73. UPD_REC.FTN
                                    :74. UPD_STYLE.FTN
                                    :75. UPD_TEXT_ATT.FTN
                                    :76. UPD_TEXT_DAT.FTN
                                    :77. UPD_WSP_C_TB.FTN
                                    :78. UPD_WSP_S_TB.FTN
                                    :79. UPSHFT.FTN
                                    :80. WRITE_DATA.FTN
                                    :81. WRITE_DRWG.FTN
                                    :82. WRITE_INT.FTN
                                    :83. WRITE_INT_DA.FTN
                                    :84. XFORM.FTN
                                    :85. XFORM_CURVE_.FTN
                                    :86. XFORM_POLY_L.FTN
                                    :87. YES_NO.FTN
                                    :88. YES_NO_QUIT.FTN
                                    :89. ADD_ARC_NODE.REL
                                    :90. ADD_ARC_TO_P.REL
                                    :91. ADD_CURVE_NO.REL
                                    :92. ADD_CURVE_TO.REL
                                    :93. ADD_EXTENT.REL
                                    :94. ADD_KNOTS.REL
                                    :95. ADD_LINE_NOD.REL
                                    :96. ADD_MACRO.REL
                                    :97. SAVE_LINE.FTN
                                    :98. SAVE_MARKER.FTN
                                    :99. SAVE_POLY_AT.FTN
   Operating System.....:  RTE-A/VC+
   Language(s)..........:  FTN7X
   Keywords.............: 1. Graphics
                       : 2. Figures
                       : 3. Plotting
   External Support Req'd...:
   If Re-submission, Reason.: New version with additional features
Contributor's Name......: Philip Walden
             Company....: Hewlett-Packard
             Street.....: 11000 Wolfe Road
                       : M/S 42UM
             City.......: Cupertino
             State......: CA
             Country....: USA
             Zip Code...: 95014
             Phone Number..: (408) 257-7000
Program Abstract........: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000
```

SKETCH M082

SKETCH REV. 5.1 (PART 5 OF 9)

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 5 of 9)
   File Names.........:000. Rename Transfer File
                      :01. SKETCH5.SBMT
                      :02. ADD_STACK.REL
                      :03. ADD_TEXT_NOD.REL
                      :04. ADD_TO_POLY.REL
                      :05. ALLOCATE_HEA.REL
                      :06. ALLOCATE_SPA.REL
                      :07. ALPHA_FIX.REL
                      :08. ANGLE.REL
                      :09. APICK_AFFECT.REL
                      :10. ARCHIVE2SK.REL
                      :11. ARC_ENDS.REL
                      :12. ARC_LIMITS.REL
                      :13. ARC_MODE.REL
                      :14. ATTACH_TO_CH.REL
                      :15. BASENAME.REL
                      :16. BFTSK.REL
                      :17. BLOCK_READ.REL
                      :18. BSTSK.REL
```

:19. CALC_ROTATE.REL
:20. CALC_START.REL
:21. CALC_STRETCH.REL
:22. CALC_TEXT_EN.REL
:23. CALC_TEXT_OR.REL
:24. CHANGE_CMODE.REL
:25. CHANGE_CURVE.REL
:26. CHANGE_GEN_A.REL
:27. CHANGE_LIMIT.REL
:28. CHANGE_POLY_.REL
:29. CHANGE_TEXT_.REL
:30. CHANGE_WINDO.REL
:31. CLEAR_ALL_SE.REL
:32. CLEAR_ALPHA.REL
:33. CLEAR_DATA_B.REL
:34. CLONE.REL
:35. CLONE_AREA.REL
:36. CLONE_SEGMEN.REL
:37. CLOSE_CONSTR.REL
:38. CLOSE_CURVE_.REL
:39. CLOSE_PICK_A.REL
:40. CLOSE_POLY_N.REL
:41. CLOSE_TEXT_N.REL
:42. COLOR_TABLE_.REL
:43. CONSTRUCT_AR.REL
:44. CONSTRUCT_CO.REL
:45. CONSTRUCT_LI.REL
:46. CONSTRUCT_LS.REL
:47. CONSTRUCT_MA.REL
:48. CONSTRUCT_PK.REL
:49. COPY_ATTRIBU.REL
:50. COPY_NODE.REL
:51. CREATE_DRWG.REL
:52. CREATE_DRWG_.REL
:53. CURVE_MODE.REL
:54. DEALLOCATE_N.REL
:55. DEALLOCATE_S.REL
:56. DEFAULT.REL
:57. DELETE_KNOTS.REL
:58. DELETE_NODE.REL
:59. DELETE_SPACE.REL
:60. DELETE_UNCHA.REL
:61. DRAW_ALL_CON.REL
:62. DRAW_ALL_SEG.REL
:63. DRAW_ARC_SEG.REL
:64. DRAW_COLOR.REL
:65. DRAW_COLOR_T.REL
:66. DRAW_CONSTRU.REL
:67. DRAW_CURVE_S.REL
:68. DRAW_ELIPSE.REL
:69. DRAW_GEN_ATT.REL
:70. DRAW_GRID.REL
:71. DRAW_KNOTS.REL
:72. DRAW_LINE_SE.REL
:73. DRAW_MARKER_.REL
:74. DRAW_POLYGON.REL
:75. DRAW_POLY_AT.REL
:76. DRAW_SCREEN.REL
:77. DRAW_SEGMENT.REL
:78. DRAW_SEGS.REL
:79. DRAW_STYLE.REL
:80. DRAW_STYLE_T.REL
:81. DRAW_TEXT_AT.REL
:82. DRAW_TEXT_SE.REL
:83. DRWG_FUNCTIO.REL
:84. DRWG_TYPE.REL
:85. D_RESOLUTION.REL
:86. EDIT.REL
:87. EDIT_AREA.REL
:88. EDIT_BCKGRND.REL
:89. EDIT_COLOR_T.REL
:90. EDIT_CURVE_A.REL
:91. EDIT_CURVE_E.REL
:92. EDIT_GEN_ATT.REL
:93. EDIT_GROUP.REL
:94. EDIT_POLY_AT.REL
:95. EDIT_SEGMENT.REL
:96. ADD_MARKER_N.REL
:97. ADD_NODE.REL
:98. ADD_POINT_TO.REL
:99. ADD_POLY_MEM.REL

Operating System.....: RTE-A7VC+
Language(s).....: FTN7X
Keywords.....: 1. Graphics
: 2. Figures
: 3. Plotting

External Support Req'd...:
If Re-submission, Reason.: New version with additional features
Contributor's Name.....: Philip Walden
Company.....: Hewlett-Packard
Street.....: 11000 Wolfe Road
: M/S 42UM
City.....: Cupertino
State.....: CA
Country.....: USA
Zip Code.....: 95014
Phone Number..: (408) 257-7000
Program Abstract.....: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000

SKETCH M083

SKETCH REV. 5.1 (PART 6 OF 9)

Contribution Name.....: SKETCH
Title.....: SKETCH REV. 5.1 (part 6 of 9)
File Names.....:000. Rename Transfer File
:01. SKETCH6.SBMT
:02. FPEEK.REL
:03. FRAME.REL
:04. FTNERROR.REL
:05. FUNCTION_TYP.REL
:06. FUNC_HILITED.REL
:07. FUNC_VIS.REL
:08. GET_ALPHA_DE.REL

:09. GET_ARC.REL
:10. GET_ARC_DATA.REL
:11. GET_BCKGRND_.REL
:12. GET_BUTTON.REL
:13. GET_BUTTON_D.REL
:14. GET_COLOR.REL
:15. GET_COLOR_MO.REL
:16. GET_CURVE_LI.REL
:17. GET_CURVE_SI.REL
:18. GET_DISPLAY_.REL
:19. GET_DRWG_C_T.REL
:20. GET_DRWG_LIM.REL
:21. GET_DRWG_NAM.REL
:22. GET_DRWG_S_T.REL
:23. GET_ENDS.REL
:24. GET_EXTENT.REL
:25. GET_FLAGS.REL
:26. GET_GEN_ATTR.REL
:27. GET_INS_MRG_.REL
:28. GET_INT.REL
:29. GET_INT_REC.REL
:30. GET_LEN.REL
:31. GET_LINE.REL
:32. GET_LINE_DAT.REL
:33. GET_LOCATOR_.REL
:34. GET_MACRO_LI.REL
:35. GET_MARKER.REL
:36. GET_MODEL_MA.REL
:37. GET_MOD_COLO.REL
:38. GET_NEXT.REL
:39. GET_NO_COLOR.REL
:40. GET_NO_POLYG.REL
:41. GET_NO_STYLE.REL
:42. GET_NO_TEXT_.REL
:43. GET_PLACE_OP.REL
:44. GET_POINT_FR.REL
:45. GET_POINT_ON.REL
:46. GET_POLY_ATT.REL
:47. GET_POLY_LIM.REL
:48. GET_POLY_SIZ.REL
:49. GET_PREVIOUS.REL
:50. GET_REAL.REL
:51. GET_REAL_REC.REL
:52. GET_REC.REL
:53. GET_SEGMENT.REL
:54. GET_STYLE.REL
:55. GET_TEXT_ATT.REL
:56. GET_TEXT_BOX.REL
:57. GET_TEXT_DAT.REL
:58. GET_TEXT_LIM.REL
:59. GET_TEXT_LIN.REL
:60. GET_TRGT_TAB.REL
:61. GET_TYPE.REL
:62. GHOME.REL
:63. GLOB_SPACE.REL
:64. GRID_CONTROL.REL
:65. GRID_SPACING.REL
:66. GROUP_EDIT_I.REL
:67. GROUP_MODE.REL
:68. HILITE.REL
:69. HSL_TO_RGB.REL
:70. IMODE.REL
:71. IMODE2.REL
:72. INITA.REL
:73. INITD.REL
:74. INIT_DATA.REL
:75. INIT_DISPLAY.REL
:76. INIT_WS_DATA.REL
:77. INSERT.REL
:78. INSERT_DRWG.REL
:79. INSERT_SPACE.REL
:80. INSIDE_WINDO.REL
:81. IN_ALPHA.REL
:82. IN_MENU.REL
:83. JEDIT.REL
:84. JEDOF.REL
:85. JINPUT.REL
:86. JWRITL.REL
:87. JWRITM.REL
:88. JWRITP.REL
:89. JWRITS.REL
:90. K11776SDF_CDS.REL
:91. K4222NTB_CDS.REL
:92. K6141PAG_CDS.REL
:93. KEYBOARD_INP.REL
:94. KURV1.REL
:95. EDIT_STYLE_T.REL
:96. EDIT_TEXT_AT.REL
:97. EXEC_PROG.REL
:98. EXPAND_WINDO.REL
:99. FIND_GROUP.REL

Operating System.....: RTE-A/VC+
Language(s).....: FTN7X
Keywords.....: 1. Graphics
: 2. Figures
: 3. Plotting
External Support Req'd...:
If Re-submission, Reason.: New version with additional features

Contributor's Name.....: Philip Walden
Company.....: Hewlett-Packard
Street.....: 11000 Wolfe Road
: M/S 42UM
City.....: Cupertino
State.....: CA
Country.....: USA
Zip Code.....: 95014
Phone Number..: (408) 257-7000

Program Abstract.....: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000

SKETCH REV. 5.1 (PART 7 OF 9)

Contribution Name.....: SKETCH
Title.....: SKETCH REV. 5.1 (part 7 of 9)
File Names.....:000. Rename Transfer File
:01. SKETCH7.SBMT
:02. MAIN.REL
:03. MASH.REL
:04. MASH_MACRO.REL
:05. MATRIX_MULT.REL
:06. MENUFUNC.REL
:07. MERGE.REL
:08. MERGE_DRWG.REL
:09. METHEUS_FIX.REL
:10. MIN_MAX.REL
:11. MOVE.REL
:12. MOVE_KNOTS.REL
:13. MOVE_NODE.REL
:14. NEAREST_TO.REL
:15. OPEN_CONSTRU.REL
:16. OPEN_CURVE_N.REL
:17. OPEN_CURVE_R.REL
:18. OPEN_DRWG_FI.REL
:19. OPEN_PICK_AR.REL
:20. OPEN_POLY_NO.REL
:21. OPEN_TEXT_NO.REL
:22. PAN.REL
:23. PICK_SEGMENT.REL
:24. POLAR_MINMAX.REL
:25. POLYGON_MODE.REL
:26. POLYSET_MODE.REL
:27. POP_STACK.REL
:28. PSTYLE_TABLE.REL
:29. PURGE.REL
:30. PURGE_ALL_SE.REL
:31. PURGE_CONSTR.REL
:32. PURGE_GEN_AT.REL
:33. PURGE_GRID.REL
:34. PURGE_NODE.REL
:35. PURGE_POLY_A.REL
:36. PURGE_SEG.REL
:37. PURGE_STACK.REL
:38. PURGE_TABLE.REL
:39. PURGE_TEXT_A.REL
:40. PUSH_STACK.REL
:41. READ_DATA.REL
:42. READ_DRWG.REL
:43. READ_DRWG_NA.REL
:44. READ_GROUP.REL
:45. READ_INT.REL
:46. READ_INT_DAT.REL
:47. READ_ITEM.REL
:48. REALTODECIMA.REL
:49. RECALCULATE_.REL
:50. RECALC_ALL_I.REL
:51. RECALC_ATTRI.REL
:52. RECALC_TEXT_.REL
:53. REFRESH_ATTR.REL
:54. REFRESH_COLO.REL
:55. REFRESH_CURV.REL
:56. REFRESH_DISP.REL
:57. REFRESH_GEN_.REL
:58. REFRESH_POLY.REL
:59. REFRESH_STYL.REL
:60. REFRESH_TEXT.REL
:61. REPLACE_DRWG.REL
:62. RES.REL
:63. RESET_WINDOW.REL
:64. RGB_TO_HSL.REL
:65. ROTATE_REL
:66. ROUND.REL
:67. SAVE_ARC.REL
:68. SAVE_CURVE_A.REL
:69. SAVE_HILITES.REL
:70. SAVE_IN_UNCH.REL
:71. SAVE_LINE.REL
:72. SAVE_MARKER.REL
:73. SAVE_POLY_AT.REL
:74. SAVE_SEG.REL
:75. SAVE_TEXT_AT.REL
:76. SAVE_TEXT_LI.REL
:77. SCHED_PLOT.REL
:78. SCREEN_READ_.REL
:79. SCREEN_VIS.REL
:80. SDINT.REL
:81. SEDEV.REL
:82. SEGMENT_EXIS.REL
:83. SET_ALPHA_LO.REL
:84. SET_DIDDF.REL
:85. SET_FONT.REL
:86. SET_FST_POLY.REL
:87. SET_LIMITS.REL
:88. SET_POLY_POS.REL
:89. SET_WINDOW.REL
:90. SHOW.REL
:91. SK1000.REL
:92. SK2ARCHIVE.REL
:93. SKIP_POLY_RE.REL
:94. KURV2.REL
:95. KURVP1.REL
:96. KURVP2.REL
:97. LINE_MODE.REL
:98. LOAD_COLOR_T.REL
:99. LOAD_STYLE_T.REL
Operating System.....: RTE-A/VC+
Language(s).....: FTN7X
Keywords.....: 1. Graphics
: 2. Figures
: 3. Plotting
External Support Req'd...:
If Re-submission, Reason.: New version with additional features
Contributor's Name.....: Philip Walden

```
                    Company.......: Hewlett-Packard
                    Street........: 11000 Wolfe Road
                                  : M/S 42UM
                    City..........: Cupertino
                    State.........: CA
                    Country.......: USA
                    Zip Code......: 95014
                    Phone Number..: (408) 257-7000
Program Abstract.............: See abstract in part 1 of this contribution
Additional Documentation.....: MANUAL.1000
```

SKETCH M085

SKETCH REV. 5.1 (PART 8 OF 9)

```
Contribution Name............: SKETCH
   Title.....................: SKETCH REV. 5.1 (part 8 of 9)
   File Names................:000. Rename Transfer File
                             :01. SKETCH8.SBMT
                             :02. TERMD.REL
                             :03. TEXT_LEN.REL
                             :04. TEXT_MODE.REL
                             :05. TOGGLE_ALTER.REL
                             :06. TOGGLE_APICK.REL
                             :07. TOGGLE_DIGIT.REL
                             :08. TOGGLE_FAST_.REL
                             :09. TOGGLE_FST_P.REL
                             :10. TOGGLE_GRID.REL
                             :11. TOGGLE_KEYBO.REL
                             :12. TOGGLE_PICK_.REL
                             :13. TOGGLE_SNAP.REL
                             :14. TRANSFORM_AR.REL
                             :15. TRANSFORM_CU.REL
                             :16. TRANSFORM_LI.REL
                             :17. TRANSFORM_OB.REL
                             :18. TRANSFORM_PO.REL
                             :19. TRANSFORM_SE.REL
                             :20. TRANSFORM_TE.REL
                             :21. UNIQPATH.REL
                             :22. UNPURGE.REL
                             :23. UPD_ARC_DATA.REL
                             :24. UPD_COLOR.REL
                             :25. UPD_COLOR_MO.REL
                             :26. UPD_DRWG_LIM.REL
                             :27. UPD_DRWG_NAM.REL
                             :28. UPD_EXTENT.REL
                             :29. UPD_FLAGS.REL
                             :30. UPD_GEN_ATTR.REL
                             :31. UPD_INT.REL
                             :32. UPD_INT_REC.REL
                             :33. UPD_LINE_DAT.REL
                             :34. UPD_LOCP.REL
                             :35. UPD_MACRO_LI.REL
                             :36. UPD_MODEL_MA.REL
                             :37. UPD_NEXT.REL
                             :38. UPD_NO_POLYG.REL
                             :39. UPD_NO_TEXT_.REL
                             :40. UPD_POINT_TO.REL
                             :41. UPD_POLY_ATT.REL
                             :42. UPD_PREVIOUS.REL
                             :43. UPD_PT_TO_CU.REL
                             :44. UPD_REAL.REL
                             :45. UPD_REAL_REC.REL
                             :46. UPD_REC.REL
                             :47. UPD_STYLE.REL
                             :48. UPD_TEXT_ATT.REL
                             :49. UPD_TEXT_DAT.REL
                             :50. UPD_WSP_C_TB.REL
                             :51. UPD_WSP_S_TB.REL
                             :52. UPSHFT.REL
                             :53. WRITE_DATA.REL
                             :54. WRITE_DRWG.REL
                             :55. WRITE_INT.REL
                             :56. WRITE_INT_DA.REL
                             :57. XFORM.REL
                             :58. XFORM_CURVE_.REL
                             :59. XFORM_POLY_L.REL
                             :60. YES_NO.REL
                             :61. YES_NO_QUIT.REL
                             :62. ARCHIVE2SK.LOD
                             :63. BFTSK.LOD
                             :64. BSTSK.LOD
                             :65. SK.LOD
                             :66. SK2ARCHIVE.LOD
                             :67. SKPLOT.LOD
                             :68. SKWSP12065.LOD
                             :69. SKWSP2393.LOD
                             :70. SKWSP2397.LOD
                             :71. SKWSP2563.LOD
                             :72. SKWSP2623.LOD
                             :73. SKWSP2627.LOD
                             :74. SKWSP2628.LOD
                             :75. SKWSP2648.LOD
                             :76. SKWSP7470.LOD
                             :77. SKWSP7475.LOD
                             :78. SKWSP7550.LOD
                             :79. SKWSP7580.LOD
                             :80. SKWSP7585.LOD
                             :81. |AGP
                             :82. |ARCHIVE2SK
                             :83. |ATTR
                             :84. |BUFFR
                             :85. |CURVE
                             :86. |DATA8
                             :87. |DATAB
                             :88. |DRWG
                             :89. |DTYPE
                             :90. |ECHO
                             :91. |FLAGS
                             :92. |FONTS
                             :93. SKIP_READ.REL
                             :94. SKPLO.REL
                             :95. SLEN.REL
                             :96. SMAXV.REL
                             :97. SNAP.REL
```

```
                                :98. SPSUB.REL
                                :99. STRETCH.REL
   Operating System.....:  RTE-A/VC+
   Language(s)..........:  FTN7X
   Keywords.............: 1. Graphics
                       : 2. Figures
                       : 3. Plotting
   External Support Req'd...:
   If Re-submission, Reason.: New version with additional features
Contributor's Name......: Philip Walden
            Company.....: Hewlett-Packard
            Street......: 11000 Wolfe Road
                       : M/S 42UM
            City........: Cupertino
            State.......: CA
            Country.....: USA
            Zip Code....: 95014
            Phone Number..: (408) 257-7000
Program Abstract........: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000
```

SKETCH **M086**

SKETCH REV. 5.1 (PART 9 OF 9)

```
Contribution Name.....: SKETCH
   Title..............: SKETCH REV. 5.1 (part 9 of 9)
   File Names.........:00. Rename Transfer File
                      :01. SKETCH9.SBMT
                      :02. |ECHO
                      :03. |FUNC
                      :04. |LINE
                      :05. |MACRO
                      :06. |MARKER
                      :07. |NODE
                      :08. |POLY
                      :09. |ROOT
                      :10. |TEXT
                      :11. |TYPES
                      :12. |VERSION
                      :13. |INSRT
                      :14. |MENU
                      :15. |SCREE
                      :16. |SITE
                      :17. |UNPRG
                      :18. |WSDAT
                      :19. |ARC
                      :20. |CURVE
                      :21. DRAW_POLYGON.FTN
                      :22. INIT_DATA.FTN
                      :23. SAVE_SEG.FTN
                      :24. ADD_POLY_NOD.REL
                      :25. FONT_LEN_FAC.REL
                      :26. LOCATE_POINT.REL
                      :27. SYSTEM_MODE.REL
   Operating System.....:  RTE-A/VC+
   Language(s)..........:  FTN7X
   Keywords.............: 1. Graphics
                       : 2. Figures
                       : 3. Plotting
   External Support Req'd...:
   If Re-submission, Reason.: New version with additional features
Contributor's Name......: Philip Walden
            Company.....: Hewlett-Packard
            Street......: 11000 Wolfe Road
                       : M/S 42UM
            City........: Cupertino
            State.......: CA
            Country.....: USA
            Zip Code....: 95014
            Phone Number..: (408) 257-7000
Program Abstract........: See abstract in part 1 of this contribution
Additional Documentation....: MANUAL.1000
```

DIM3P **M087**

3D DEVICE INDEPENDENT GRAPHIC PROGRAM

```
Contribution Name.....: DIM3P
   Title..............: 3D device independent graphic program
   File Names.........:00. Rename Transfer File
                      :01. DIM3P.SBMT   submit file
                      :02. DIM3P.FTN    program GRAF3 reads &
                                        transforms data, starts
                                        DIM3P by exec-call
                      :03. GRAF3.FTN
                      :04. GRAF3.REL
                      :05. GRAF3.LOD
                      :06. DESRS.FTN    plotting program
                      :07. DESRS.REL
                      :08. DESRS.LOD
                      :09. DIM3P.DOC
                      :10. DIM3P.REL
                      :11. DIM3P.JOB    job file
                      :12. DIM3P.LOD    loadr file
                      :13. DIM3P.MAKE   make file
                      :14. DIM3P.UGLY
   Operating System.....:  RTE-IV
   Language(s)..........:  Fortran-IV
   Keywords.............:  1. Graphics
   External Support Req'd...: A device plotter library- not supplied
   If Re-submission, Reason.:
Contributor's Name......:    R.De Langhe
            Company.....:    RUCA
            Street......:    Elisabethlaan 154 bus 4
            City........:    Antwerp (Berchem)
            State.......:
            Country.....:    Belgium
            Zip Code....:    2600
            Phone Number..:
Program Abstract........:
```

DIM3P is a simple, strongly device independent graphic program, imaging 3D objects defined by polygons. Hidden lines are eliminated, perspective can be applied. DIM3P raises the common requirement of most 3D graphic programs for convex polygons, and thus allows defining bodies with holes, complex edges etc.

Apart from object's data,a memory space of around 15 pages is required to run the program DIM3P, eventually using Extended Memory Access. The transformation program requires 14 pages, the optional plotting program 8 pages.

The design is done in 3 steps: first all points must be transformed according to given eyepoint, rotations, perspective etc. This must be done prior to hidden line elimination, to reduce processing time. The transformed data are transmitted to the visibility-testing program DIM3P, which produces a file with results (as small lines) to be plotted by some plotting program on any graphic device. This contribution includes the transforming and visibility testing programs, which are both fully compatible, and an example of a plotting program with a graphic library for a Calcomp plotter.

The form in which data must be presented to the programs, is very simple and permits editor-handling of the datafile(s). Its structure is described in detail in file &ZCH3P.

The two programs (transformations and visibility) can be joined together in one single program to eliminate the data-transferring time between the two programs, but requires evidently more memory-space to run.

By a written request, a Pascal version of the (joined) program can be delivered.

MLVS M088

MULTILEVEL SORT OF ASCII-FILE

```
Contribution Name.....: MLVS
   Title..............: Multilevel Sort of ASCII-File
   File Names.........:00. Rename Transfer File
                      :01. MLVS.SBMT
                      :02. MLVS.FTN
                      :03. MLVSIN.DAT
                      :04. MLVSOR.DAT
                      :05. MLVSOT.DAT
   Operating System(s)...: RTE-A, (RTE-VIb, HP-UX)
   Language(s)...........: FORTRAN 77
   Keywords..............: 1. Sort
                          : 2. Shell
   External Support Req'd...: no
   If Re-submission, Reason.:
Contributor's Name.....: Ralf Poeppel
            Company....: m+p Mahrenholtz + Partner
            Street.....: Freundallee 17
            City.......: Hannover
            State......:
            Country....: Federal Republic of Germany
            Zip Code...: D 3000
            Phone Number..: (05 11) 81 80 54
            Telex......:
Contribution Abstract.....:
Program for multilevel sorting of an ASCII-file with several sort items.
Sort items are to be declared by number of starting and ending character
of the item in the line. The sorting order can be choosen for every sort
level. The program avoids recursion, so it doesn't eat up the stack.
The sorting algorithm used is the Shell-sort published by Kernighan and
Ritchie, which is nearly as fast as the Quicksort.
Additional Documentation....: Kernighan, Ritchie: The C Programming
Language, Prentice-Hall, Inc. 1977.
```

SFKEY M089

KEYSET LOAD UTILITY

```
Contribution Name.....: SFKEY
   Title..............: Keyset load utility
   File Names.........:00. Rename Transfer File
                      :01. SFKEY.SBMT
                      :02. SFKEY.DOC
                      :03. SFKEY.LOD
                      :04. SFKEY.FTN
                      :05. SFKEY.REL
                      :06. SFKEY.MAKE
                      :07. SF_SUBR.FTN
                      :08. QM_SUBR.MAC
                      :09. SF_SUBR.REL
                      :10. QM_SUBR.REL
                      :11. DEFINE_CRTS.DAT
                      :12. NORMAL_KEYS.DAT
   Operating System.....: RTE-A VC+
   Language(s)..........: Ftn7x and Macro
   Keywords.............: 1. SOFTKEYS
                        : 2. TERMINAL
   External Support Req'd...: -- none --
   If Re-submission, Reason.:
Contributor's Name.....: Robert R. Miller
            Company....: Martin Marietta
            Street.....: PO Box 29304
            City.......: New Orleans
            State......: LA
            Country....: US
            Zip Code...: 70189
            Phone Number..: (504) 257 1129
            Telex......:
Contribution Abstract.....:
  Eliminates the need for multiple, functionally identical keyset
  files by using the terminal's model number to select records to
  output from a modified keyset file.
  Creation of the keyset file made easier by predefining some of
  the most often used escape code sequences.

Additional Documentation....: See file SFKEY.DOC
```

HAKRI M090

HP 1000 MEF MEMORY ERASING PROGRAM

```
Contribution Name...........:    HAKRI
   Title....................:    HP 1000 MEF MEMORY ERASING PROGRAM
   File Names..............:00. Rename Transfer File
                           :01. HAKRI.SBMT
                           :02. HAKRI.MAC           Source
                           :03. HAKRI.REL
                           :04. HAKRI.LOD
                           :05. HAKRI_MANUAL.TXT    Full Documentation
                           :06. HAKRI_MAKE
   Operating System(s).....:    RTE-4B and RTE-6 VM
   Language(s).............:    Assembly
   Keywords................: 1. MANAGEMENT
                           : 2. PURGE
                           : 3. SCRATCH
                           : 4. SECURITY
   External Support Req'd...:    None
   If Re-submission, Reason.:    --
Contributor's Name..........:    Robert Reavis
               Company......:    Litton Applied Technology
               Street.......:    4747 Hellyer Avenue
               Mail.........:    Post Office Box 7012
               City.........:    San Jose
               State........:    California
               Country......:    USA
               Zip Code.....:    95150-7012
               Phone Number..:   (408) 365-4566
               TWX..........:    910-339-9271
Contribution Abstract.......:

A program to erase all CPU memory by overwriting with one and zero
palrs three times, writing a specific pattern, and verifying the
pattern is in memory.  Determins size of physical memory at run time.
Documentation supplied as part of the contribution.  Public domain.
```

BUGOF M091

BATCH MODE DEBUGGING AID

```
Contribution Name...........:  BUGOF
   Title....................:  Batch mode debugging aid
   File Names..............:  00. Rename Transfer File
                           :  01. BUGOF.SBMT
                           :  02. &BUGOF       Source file
                           :  03. %BUGOF
   Operating System(s).....:  RTE-III and later
   Language(s).............:  Assembly
   Keywords................:  1. DEBUG
                           :  2. BATCH
   External Support Req'd...:  None
   If Re-submission, Reason.:  --
Contributor's Name..........:  Robert Reavis
               Company......:  Warm Springs Computer Works
               Street.......:  44840 Camellia Drive
               City.........:  Fremont
               State........:  California
               Country......:  USA
               Zip Code.....:  94539-6525
               Phone Number..:  (415) 657-8421
               Telex........:  --
Contribution Abstract.......:
   On-line debugging is great when the program and environment allow
   for it.  This contribution is useful when data must be displayed
   as the program continues to run at its normal speed and without
   keyboard interaction.  Calls to BUGOF can be inserted virtually
   anywhere in a program source to display location and variable
   data in several different formats.
Additional Documentation....:
   Detailed documentation and calling sequences are contained in
   the source file.
```

MENU M092

STARTUP PROGRAM FOR MEMORY BASED SYSTEMS

```
Contribution Name...........: MENU
   Title....................: Startup program for memory based systems
   File Names..............:00. Rename Transfer File
                           :01. STARTUP.SBMT
                           :02  STARTUP.FTN        Source
                           :03  STARTUP.REL        Relocatable
                           :04. STARTUP.LOD        Linkfile
                           :05. STARTUP.CMD        Linkfile
                           :06. MEM_SYS.BULD       Example for Build
   Operating System(s).....: RTE-A  Rev. 5000
   Language(s).............: FTN7X
   Keywords................: 1. system
                           : 2. boot-up
   External Support Req'd...: none
   If Re-submission, Reason.: none
Contributor's Name..........: Roland Dietiker
               Company......: Hewlett Packard
               Street.......: Allmend 2
               City.........: Widen
               State........:
               Country......: SWITZERLAND
               Zip Code.....: 8967
               Phone Number..: CH-057 312 111
               Telex........: 828 010
               Telefax......: CH-057 312 475
 Program Abstract...........:
This program was designed as Startup program for memory based systems.
The program tries to start the program WH  and shows all of the
installed programs. After that it starts the CI as the userinterface.
If the user leave the CI with EX the Startup-program starts again WH and
the CI program.
```

RK M093

RUNGE-KUTTA DIFFERENTIAL EQ'N SOLVERS

```
Contribution Name.....: RK
   Title..............: RUNGE-KUTTA DIFFERENTIAL EQ'N SOLVERS
   File Names.........:00. Rename Transfer File
                      :01. RK.SBMT       (submission file)
                      :02. RK.FTN        (single prec. source)
                      :03. RKQ.IFTN      (include files)
                      :04. RKD.IFTN      ( "" )
                      :05. RKEL.IFTN     ( "" )
                      :06. RKE4.IFTN     ( "" )
                      :07. RKEH.IFTN     ( "" )
                      :08. RK.REL        (single prec. relocatable)
                      :09. $RK.LIB       (single prec. library)
                      :10. RK.THLP       (single prec. help file)
                      :11. RK.HLP        (single prec. GENIX'ed help)
                      :12. DRK.FTN       (double prec. source)
                      :13. DRKQ.IFTN     (include files)
                      :14. DRKD.IFTN     ( "" )
                      :15. DRKEL.IFTN    ( "" )
                      :16. DRKE4.IFTN    ( "" )
                      :17. DRKEH.IFTN    ( "" )
                      :18. DRK.REL       (double prec. relocatable)
                      :19. $DRK.LIB      (double prec. library)
                      :20. DRK.THLP      (double prec. help file)
                      :21. DRK.HLP       (double prec. GENIX'ed help)
                      :22. &CPUTS        (cpu time subr. for test prog)
                      :23. %CPUTS        (relocatable of &CPUTS)
   Operating System(s).: RTE-6/VM,  RTE-A
   Language(s).........: Fortran 77
   Keywords............: 1. ENGINEERING
                      : 2. FLOATING POINT
                      : 3. MATHEMATICS
                      : 4. PHYSICS
                      : 5. PRECISION
   External Support Req'd...: Vector Instruction Set, or software equiv.
   If Re-submission, Reason.:
Contributor's Name.....: Stephen S. Kerr
              Company..: York University
              Street...: 4700 Keele Street
              City.....: Downsview
              Province.: Ontario
              Country..: Canada
              Postal code...: M3J 1P3
              Phone Number..: (416) 736-2100 ext 3603 or 3834
              Telex....:
Contribution Abstract.....:
```

These Runge-Kutta differential equation solvers have been very useful in our research. They are by no means the only way to solve differential equations, but we have been impressed enough with their reliability and ease of use to employ them frequently.

The eighth to first order formulas coded in this package are those of Fehlberg (see below). We have not made extensive use of the lower order routines (4th and below), but occasionally they can succeed when the higher orders fail. Roundoff error detection for the lower orders is still being refined.

Additional Documentation....:

Fehlberg, Erwin, "Classical Fifth-, Sixth-, Seventh-, and Eighth-order Runge-Kutta Formulas with Stepsize Control", NASA TR R-287, 1968.

Fehlberg, Erwin, "Low-Order Classical Runge-Kutta Formulas with Stepsize Control and their Application to some Heat Transfer Problems", NASA TR R-315, July 1969.

Also, see help files and source listings.

RKN M094

RUNGE-KUTTA-NYSTROM DIFFERENTIAL EQ'N SOLVERS

```
Contribution Name.....: RKN
   Title..............: RUNGE-KUTTA-NYSTROM DIFFERENTIAL EQ'N SOLVERS
   File Names.........:00. Rename Transfer File
                      :01. RKN.SBMT      (submission file)
                      :02. RKN.FTN       (single prec. source)
                      :03. RKNQ.IFTN     (include file)
                      :04. RKND.IFTN     ( "" )
                      :05. RKNE.IFTN     ( "" )
                      :06. RKN.REL       (single prec. relocatable)
                      :07. $RKN.LIB      (single prec. library)
                      :08. RKN.THLP      (single prec. help text)
                      :09. RKN.HLP       (single prec. GENIX'ed help)
                      :10. DRKN.FTN      (double prec. source)
                      :11. DRKNQ.IFTN    (include file)
                      :12. DRKND.IFTN    ( "" )
                      :13. DRKNE.IFTN    ( "" )
                      :14. DRKN.REL      (double prec. relocatable)
                      :15. $DRKN.LIB     (double prec. library)
                      :16. DRKN.THLP     (double prec. help text)
                      :17. DRKN.HLP      (double prec. GENIX'ed help)
   Operating System(s).: RTE-6/VM, RTE-A
   Language(s).........: Fortran 77
   Keywords............: 1. ENGINEERING
                      : 2. MATHEMATICS
   External Support Req'd...: Vector Instruction Set
   If Re-submission, Reason.:
Contributor's Name.....: Stephen S. Kerr
              Company..: York University
              Street...: 4700 Keele Street
              City.....: Downsview
              Province.: Ontario
              Country..: Canada
              Zip Code.: M3J 1P3
              Phone Number..: (416) 736-2100 ext 3603 or 3834
```

Telex.....:
Contribution Abstract.....:

Runge-Kutta-Nystrom formulas differ from Runge-Kutta formulas in that they are specially designed to solve second order systems in which the first order derivative is not present. They can solve such problems faster than Runge-Kutta formulas because they are smaller in size, and reduce the number of equations to solve by 50%. However, they can suffer from higher error because stepsize control is based on the position co-ordinates only, and not the velocity co-ordinates.

These formulas of eighth to fourth order are due to Fehlberg (see below). The features in these routines are essentially identical to those found with the Runge-Kutta routines in this CSL release.

Additional Documentation....:

Fehlberg, Erwin, "Classical Eighth- and Lower-Order Runge-Kutta-Nystrom Formulas with Stepsize Control for Special Second-Order Differential Equations", NASA TR R-381, March 1972.

Also, see help files and source listings.

COMPRESS — M095

ADAPTIVE LEMPEL-ZIV-WELCH FILE COMPRESSOR

Contribution Name.....: COMPRESS
Title.....: ADAPTIVE LEMPEL-ZIV-WELCH FILE COMPRESSOR
File Names.....:00. Rename Transfer File
:01. COMPRESS.SBMT (submission file)
:02. COMPRESS.FTN (compress source)
:03. UNCOMPRESS.FTN (uncompress source)
:04. COMPRESS.REL (compress relocatable)
:05. UNCOMPRESS.REL (uncompress relocatable)
:06. COMPRESS.HLP (compress help file)
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: Fortran 77
Keywords.....: 1. ARCHIVE
: 2. PACK
: 3. STORAGE
: 4. UNIX
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Stephen S. Kerr
Company.....: York University
Street.....: 4700 Keele Street
City.....: Downsview
Province.....: Ontario
Country.....: Canada
Postal Code...: M3J 1P3
Phone Number..: (416) 736-2100 ext 3603 or 3834
Telex.....:
Contribution Abstract.....:

This is a handy pair of programs for compressing and uncompressing files containing a high degree of redundancy (i.e. repeated strings) so that they can remain on disc and take up less space. They may also be useful for reducing a file's size prior to transmitting it via long distance telephone lines, or storing it on tape. These routines get their names from the UNIX utilities that also use adaptive Ziv-Lempel coding. This method of coding has an excellent performance reputation, often compacting source, text and relocatable files by a factor of up to 2 or better.

This implementation uses 12 bit coding, as recommended by Welch (see paper cited below). It has been tested on RTE file types 3, 4 and 5. At present, it can not handle types 1, 2 or 6.

The speed and compression ratio depend on the file being compressed. Since the algorithm is adaptive, it helps if the first few hundred records are typical of the entire file. On an F-series machine, the COMPRESS.FTN source file was processed in about 30 seconds and was compressed to 53% of its orig1nal size. The ALIAS.FTN source file (a 2729 line file, elsewhere in this CSL rev.) compressed in 3.7 minutes to 61% of its original size.

The compression algorithm involves much table searching, and a hash table is used to speed it up. This might still be refined to improve compression speed. The uncompression algorithm, although more complicated, involves no searching and hence is faster.

Additional Documentation....:

Welch, Terry A., "A Technique for High-Performance Data Compression", IEEE Computer, June 1984, pp 8-19.

Also, see source files.

SEARCH — M096

SEARCH FILES FOR GIVEN STRING

Contribution Name.....: SEARCH
Title.....: Search files for given string
File Names.....:00. Rename Transfer File
:01. SEARCH.SBMT
:02. SEARCH.FTN
:03. SEARCH.REL
:04. SEARCH.HELP
Operating System(s).....: RTE-A and RTE-6
Language(s).....: Fortran
Keywords.....: 1. Filter
: 2. Search
: 3. Strings
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Stig Frosig
Company.....: Bang & Olufsen A/S
Street.....: Dept. 3350
City.....: DK 7600 Struer

```
                    State.....:
                    Country...:  Denmark
                    Zip Code..:
                    Phone Number..:  (+45)-7-851122 ext 2030
                    Telex.....:
Contribution Abstract.....:
        Search in files defined by mask for given string
        and report the match on terminal.
```

DF M097

DIRECTORY AND FILE INFORMATION

```
Contribution Name.....: DF
   Title..............: Directory and File information
   File Names.........:00. Rename Transfer File
                      :01. DF.SBMT
                      :02  DF.CMD
                      :03  DF.DOC
                      :04  DF.FTN
                      :05  DF.HELP
                      :06  DF.LOD
                      :07  DFSUB.MAC
                      :08  DF_DIR_INFO.FTN
                      :09  DF_END_MESG.FTN
                      :10  DF_EXTERNAL.INC
                      :11  DF_NEW.FTN
                      :12  DF_NEW.INC
                      :13  DF_OPTIONS.FTN
                      :14  DF_OUTPUT.FTN
                      :15  DF_PRINT.FTN
                      :16  DF_SORT.MAC
                      :17  RVAL.FTN
   Operating System(s)...: RTE-A and RTE-6
   Language(s)...........: FORTRAN and MACRO
   Keywords..............: 1. Files
                        : 2. Directory
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Stig Frosig
                 Company...:  Bang & Olufsen A/S
                 Street....:  Dept. 3350
                 City......:  DK 7600 Struer
                 State.....:
                 Country...:  Denmark
                 Zip Code..:
                 Phone Number..:  (+45)-7-851122 ext 2030
                 Telex.....:
Contribution Abstract.....:
     Utility to display file contents and many other things.
     It can more or less replace DL.
```

TREE M098

DISPLAY DIRECTORY TREE STRUCTURE

```
Contribution Name.....: Tree
   Title..............: Display directory tree structure
   File Names.........:00. Rename Transfer File
                      :01. TREE.SBMT
                      :02. TREE.FTN
                      :03. TREE.REL
   Operating System(s)...: RTE-A and RTE-6 with CI file system
   Language(s)...........: Fortran
   Keywords..............: 1. Directory
                        : 2. CI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Stig Frosig
                 Company...:  Bang & Olufsen A/S
                 Street....:  Dept. 3350
                 City......:  DK 7600 Struer
                 State.....:
                 Country...:  Denmark
                 Zip Code..:
                 Phone Number..:  (+45)-7-851122 ext 2030
                 Telex.....:
Contribution Abstract.....:

     Display directory structure on CI file system. Works also
     on a RTE-6 system. Do not use CDS.
```

CLRBB M099

CLEAR BACKUP BIT

```
Contribution Name.....: CLRBB
   Title..............: Clear Backup bit
   File Names.........:00. Rename Transfer File
                      :01. CLRBB.SBMT
                      :02. CLRBB.FTN
                      :03. CLRBB.REL
   Operating System(s)...: RTE-A
   Language(s)...........: FORTRAN
   Keywords..............: 1. FILES
                        : 2. BACKUP
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Stig Frosig
                 Company...:  Bang & Olufsen A/S
                 Street....:  Dept. 3350
                 City......:  DK 7600 Struer
                 State.....:
                 Country...:  Denmark
                 Zip Code..:
                 Phone Number..:  (+45)-7-851122 ext 2030
                 Telex.....:
Contribution Abstract.....:
```

CLRBB is a utility to clear back-up bits. Use with care
beacuse your files will no longer be backup.
Useful if you load a copy of files on your system
e.g. a CSL tape, and you do not want to back it up.

Additional Documentation....:

CLRBB can only be used by superuser.

Usage : CLRBB,mask

PRMON M100

DISPLAY STATUS OF PROGRAM OVER SOME TIME

Contribution Name.....: PRMON
Title.....: Display status of program over some time
File Names.....:00. Rename Transfer File
:01. PRMON.SBMT
:02. PRMON.FTN
:03. PRMON.REL
:04. PRMON.LOD
:05. FRPLS_8BIT.LIB
Operating System(s).....: RTE-A
Language(s).....: FORTRAN
Keywords.....: 1. Monitor
: 2. Status
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Stig Frosig
Company.....: Bang & Olufsen A/S
Street.....: Dept. 3350
City.....: DK 7600 Struer
State.....:
Country.....: Denmark
Zip Code.....:
Phone Number..: (+45)-7-851122 ext 2030
Telex.....:
Contribution Abstract.....:

Sample the status of a given program in some time, and
display the program status in that periode of time.

Additional Documentation....:

Usage:

RU,PRMON,Pname,Session,#run,Deltatime

Pname --> Program-name
Session --> Session number (0 = System session)
#run --> Number of cycles
Deltatime --> How often shall it run

SPOOL M101

SETUP SPOOL LOG FILE ON RTE-A

Contribution Name.....: Spool
Title.....: Setup spool log file on RTE-A
File Names.....:00. Rename Transfer File
:01. SPOOL.SBMT
:02. SPOOL.FTN
:03. SPOOL.REL
Operating System(s).....: RTE-A only
Language(s).....: Fortran
Keywords.....: 1. Spooling
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Stig Frosig
Company.....: Bang & Olufsen A/S
Street.....: Dept. 3350
City.....: DK 7600 Struer
State.....:
Country.....: Denmark
Zip Code.....:
Phone Number..: (+45)-7-851122 ext 2030
Telex.....:
Contribution Abstract.....:

Setup logging on RTE-A system, with a log file on
/SPOOL/ with name LOGyymmdd_ttmm.LOG .

Additional Documentation....: See source

UPROJ M102

PROJECT REPORTER

Contribution Name.....: UPROJ
Title.....: PROJECT REPORTER
File Names.....:00. Rename transfer file
:01. UPROJ.SBMT
:02. UPROJ.FTN
:03. UPROJ.REL
:04. UPROJ.DOC
:05. UPROJ.LOD
:06. UPROJ.MAKE
Operating System(s).....: RTE4B
Language(s).....: FORTRAN 4X
Keywords.....: 1. REPORTS
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: TERESA WYNNE
Company.....: TRINITY FORGE INC.
Street.....: 947 TRINITY DRIVE

```
                    City.....:  MANSFIELD
                    State....:  TEXAS
                    Country..:  USA
                    Zip Code.:  76063
                    Phone Number..:  (817) 473-1515
                    Telex....:
Contribution Abstract....:
   This program is useful when one is attempting to figure out how time
at work is spent.  It uses codes defined by the user to produce headings
and detail for each project.  It also calculates the total hours spent
on each project and the total hours worked for the defined time period.

Additional Documentation....:  UPROJ.DOC
```

PRINTS — M103

CONTENTS OF A TERMINAL SCREEN TO LINE PRINTER

```
Contribution Name.....: PRINTS
   Title..............: Contents of a terminal screen to line printer
   File Names.........:00. Rename Transfer File
                      :01. prints.sbmt
                      :02. prints.ftn
                      :03. prints.rel
                      :04. prints.lod
                      :05. prints.help
   Operating System...: RTE-A, RTE-6
   Uses hierarchical files?.: n/a
   Language(s)........: Fortran
   Keywords...........: 1. printer
                      : 2. terminal
   External Support Req'd...:
   If Re-submission, Reason.: added optional output LU
Contributor's Name.....: Thomas E. Goff
                Company..: NASA / Goddard Space Flight Center
                Street...: Code 623
                City.....: Greenbelt
                State....: Maryland
                Country..: USA
                Zip Code.: 20771
                Phone Number..: (301) 286-7568
                Telex....:
Contribution Abstract....: This program transfers the contents of terminal
  memory to the line printer or other optional LU. Very useful when run from
  EDIT/1000 or obtaining hard copies of system errors.

Additional Documentation....: Prints.help
```

DVT — M104

GET DVT AND IFT INFORMATION

```
Contribution Name.....: DVT
   Title..............: Get DVT and IFT information
   File Names.........:00. rename Transfer File
                      :01. dvt.sbmt
                      :02. dvt.ftn
                      :03. dvt.rel
                      :04. dvt.lod
                      :05. get_dvt.mac
                      :06. get_dvt.rel
                      :07. bin.mac
                      :08. bin.rel
                      :09. dvt.help
   Operating System...: RTE-A
   Uses hierarchical files?.: n/a
   Language(s)........: FTN77, MACRO
   Keywords...........: 1. System
                      : 2. System_tables
   External Support Req'd...:
   If Re-submission, Reason.: Added information and bit organization.
                              Originally contributed by Seppo Pietikainen,
                              HP Finland
Contributor's Name.....: Thomas E. Goff
                Company..: NASA, Goddard Space Flight Center
                Street...: Code 623
                City.....: Greenbelt
                State....: Maryland
                Country..: USA
                Zip Code.: 20771
                Phone Number..: (301) 286-7568
Program Abstract.....: This program will print the RTE-A DVT and IFT
 tables to the user terminal of other output device. It is very useful to
 I/O driver writers and to verify the default driver parameters from HP
 supplied drivers, especially those that are incorrect in the System
 Generation Manual.

Additional Documentation....: dvt.help
```

MAIL — M105

A MAILBOX - ELECTRONIC MAIL FACILITY

```
Contribution Name.....: MAIL
   Title..............: A mailbox - electronic mail facility
   File Names.........:00. Rename Transfer File
                      :01. MAIL.SBMT
                      :02. ACK_INCLUDE.FTN
                      :03. BUILD_FILE.FTN
                      :04. BUILD_FILE.REL
                      :05. CAT_FILE.FTN
                      :06. CAT_FILE.REL
                      :07. CHECKFORERROR.FTN
                      :08. CHECKFORERROR.REL
                      :09. CLASSFILE.HELP
                      :10. COPY_FILE.FTN
                      :11. COPY_FILE.REL
                      :12. CRLIB_CDS.CMD
```

```
                                :13. CRLIB_NCDS.CMD
                                :14. DELETE.FTN
                                :15. DELETE.REL
                                :16. DELETE_SHELL.FTN
                                :17. ENCRIPT.MAC
                                :18. ENCRIPT.REL
                                :19. FILLINOUTBOX.FTN
                                :20. FILLINOUTBOX.REL
                                :21. FIND_NUM.FTN
                                :22. FIND_NUM.REL
                                :23. GETKEY.FTN
                                :24. GETKEY.REL
                                :25. GIDTBL.MAC
                                :26. GIDTBL.REL
                                :27. HELP.FTN
                                :28. HELP.REL
                                :29. INOUT.FTN
                                :30. INOUT.REL
                                :31. INSTALL.CMD
                                :32. LASER_ALL.CMD
                                :33. LPARSE.DOC
                                :34. LPARSE.FTN
                                :35. LPARSE.HELP
                                :36. LPARSE.REL
                                :37. MAIL.FTN
                                :38. MAIL.LOD
                                :39. MAIL.MAP
                                :40. MAIL.NODS
                                :41. MAIL6.LOD
                                :42. MAILA.LOD
                                :43. MAILC1AB8C23754
                                :44. MAILE1D0FE26D61
                                :45. MAILGK.CMD
                                :46. MAILGK.LOD
                                :47. MAILLB_CDS.LIB
                                :48. MAILLB_CDS.MRG
                                :49. MAILLB_NCDS.LIB
                                :50. MAILLB_NCDS.MRG
                                :51. MAILM.MAP
                                :52. MAILM6.LOD
                                :53. MAILMA.LOD
                                :54. MAIL_CDS.REL
                                :55. NEW.FTN
                                :56. NEW.REL
                                :57. PRINTARCHIVE.FTN
                                :58. READ.FTN
                                :59. READDISTFILE.FTN
                                :60. README.ONE
                                :61. RUN.FTN
                                :62. SEND.FTN
                                :63. SUBJECT_PROMPT.FTN
                                :64. TELL_USER6.FTN
                                :65. TELL_USERA.FTN
                                :66. TO_PROMPT.FTN
                                :67. UIDSUB.MAC
                                :68. UPDATEMAIL.CMD
   Operating System.........: RTE-A, RTE-6/VM
   Uses hierarchical files?.: yes
   Language(s)..............: FTN77, MACRO
   Keywords.................: 1. mail
                            : 2. Mail
                            : 3. network
   External Support Req'd...:
   If Re-submission, Reason.:
 Contributor's Name.........: Thomas E. Goff
               Company......: NASA, Goddard Space Flight Center
               Street.......: Code 623
               City.........: Greenbelt
               State........: Maryland
               Country......: USA
               Zip Code.....: 20771
               Phone Number..: (301) 286-7568
 Program Abstract...........: This is the interactive mail facility that was
written by Ricky Young and Russ Butler at the HP Rockville office and has been
disseminated in relocatable form to many users. This version has been enhanced
to work in RTE-A rev 5.0 with the new formatter and a few other minor changes
have been incorporated. Contributed with permission of the above authors.

 The program maintains encoded mail letters, acknowlege files, and in/out
baskets. Letters may be sent to individuals or groups of people, they may
be saved in addition to being mailed, they can be sent urgently, and you may
be prompted that mail is present at log-on time.
```

ERR M106

AN ERROR REPORTING PROGRAM FOR MOST HP ERRORS

```
 Contribution Name..........: ERR
   Title....................: An error reporting program for most HP errors
   File Names...............:00. Rename Transfer File
                           :01. err.sbmt
                           :02. err.ftn
                           :03. err.rel
                           :04. err.lod
                           :05. Flist.ftn
                           :06. Flist.rel
                           :07. Lparse.ftn
                           :08. Lparse.rel
                           :09. Lparse.doc
                           :10. err.help
                           :11. lparse.help
                           :12. errors.help
   Operating System.........: RTE-A, etc
   Uses hierarchical files?.: yes
   Language(s)..............: Fortran 77
   Keywords.................: 1. error
                            : 2. reports
                            : 3. help
   External Support Req'd...: none
   If Re-submission, Reason.: more error codes and more complete error
         message searching
 Contributor's Name.........: Thomas E. Goff
               Company......: NASA, Goddard Space Flight Center
               Street.......: Code 623
```

```
                    City.....: Greenbelt
                    State....: Maryland
                    Country..: USA
                    Zip Code.: 20771
                    Phone Number..: (301) 286-7568
                    Telex....:
Contribution Abstract....: This is an error decoding routine which will
print an explanation of most HP error codes. The user enters up to four
error key words or numbers, the program permutes these keys into 19 possible
key words, then searches an error file for a match with up to 8 keys for
each error message. This message is then displayed on the user terminal.
The error file is presently applicable to RTE-A and RTE-6/VM. Errors and
helpful hints are included for all the common HP errors and the not so
easily found errors such as halt codes and VCP.

Additional Documentation....: Err.help
```

M_DUPE — M107

MAGNETIC TAPE DUPLICATOR

```
Contribution Name.....: M_DUPE
   Title..............: Magnetic tape duplicator
   File Names.........:00. Rename Transfer File
                      :01. m_dupe.sbmt
                      :02. m_dupe.ftn
                      :03. m_dupe.rel
                      :04. m_dupe.lod
                      :05. lparse.ftn
                      :06. lparse.rel
                      :07. lparse.doc
                      :08. lparse.help
                      :09. m_dupe.help
   Operating System...: RTE-A, RTE-6
   Language(s)........: Fortran 77
   Keywords...........: 1. magnetic_tape
                      : 2. copy
   External Support Req'd...:
   If Re-submission, Reason.: A new user friendly and expanded version of
 my original MDUPE.

Contributor's Name.....: Thomas E. Goff
                    Company....: NASA / Goddard Space Flight Center
                    Street.....: Code 623
                    City.......: Greenbelt
                    State......: Maryland
                    Country....: USA
                    Zip Code...: 20771
                    Phone Number..: (301) 286-7568
                    Telex....:
Contribution Abstract....: Another magnetic tape duplicator. This is a
  program that we use many times daily to duplicate mag tapes with file
  limits, record limits, pre-positioning, error checking, and selective
  rewinding. An attempt to make the program user friendly is incorporated
Additional Documentation....: M_Dupe.help
```

APPT — M108

AN APPOINTMENT REMINDER PROGRAM

```
Contribution Name.....: APPT
   Title..............: An appointment reminder program
   File Names.........:00. Rename Transfer File
                      :01. appt.sbmt
                      :02. appt.ftn
                      :03. appt.rel
                      :04. appt.lod
                      :05. appt.bug
                      :06. btach.ftn
                      :07. btach.rel
                      :08. btach.lod
                      :09. lparse.ftn
                      :10. lparse.rel
                      :11. lparse.doc
                      :12. appt.help
                      :13. btach.help
                      :14. lparse.help
                      :15. appt.appt
                      :16. valentine.pic
                      :17. Happy_New_Year.pic
   Operating System...: RTE-A
   Uses Hierarchical files?.: yes
   Language(s)........: Fortran 77
   Keywords...........: 1. Calendar
                      : 2. Date
                      : 3. Time
   External Support Req'd...: none
   If Re-submission, Reason.: Added a time scheduling facility and allowed
  a user image to be accessed indirectly. Added the ability to display a
  "pretty" image if desired.
Contributor's Name.....: Thomas E. Goff
                    Company....: NASA, Goddard Space Flight Center
                    Street.....: Code 623
                    City.......: Greenbelt
                    State......: Maryland
                    Country....: USA
                    Zip Code...: 20771
                    Phone Number..: (301) 286-7568
                    Telex....:
Contribution Abstract....: This is a user non-friendly (intentionally)
appointment reminder program. The user enters a file listing appointments
to be reminded of and this program will produce the reminder at a user
specified interval before the appointment. It will also continue to remind
the user of important appointments at a selectable interval. If you allow
others to have accesses to your appointment file, then this program can
be used for meeting announcements.

Additional Documentation....: Appt.help
```

CALC M109

A COMPUTERIZED CALCULATOR (REV 2815)

```
Contribution Name.....: CALC
   Title..............: A computerized calculator (rev 2815)
   File Names.........:00. Rename Transfer File
                      :01. calc.sbmt
                      :02. calc.ftn      the actual calculator
                      :03. calc.rel
                      :04. calc.lod
                      :05. stretch.ftn    expand input string
                      :06. stretch.rel
                      :07. lparse.ftn    our logical parsing routine
                      :08. lparse.rel
                      :09. lparse.doc
                      :10. hex.mac       convert to hexidecimal format
                      :11. hex.rel
                      :12. mint.ftn      mathematical truncation (INT)
                      :13. mint.rel
                      :14. calc.help      on-line help file
                      :15. lparse.help    on-line help file
                      :16. cns.cmd        multiple CN commands
   Operating System...: RTE-A, etc
   Uses hierarchical files?.: yes
   Language(s)........: Fortran 77, Macro
   Keywords...........: 1. Calculator
                      : 2. CI
   External Support Req'd...: none
   If Re-submission, Reason.: Many enhancements: file reading/writing
capability, multiple equations, more error checking, CI command file
interaction, additional two function intrinsics, user selectable output
formats. Now including larger 32 bit numbers in hex, octal, and integer.
Useful for CI functions (see cns.cmd).
Contributor's Name.....: Thomas E. Goff
            Company....: NASA, Goddard Space Flight Center
            Street.....: Code 623
            City.......: Greenbelt
            State......: Maryland
            Country....: USA
            Zip Code...: 20771
            Phone Number..: (301) 286-7568
            Telex......:
Contribution Abstract.....: This is a user friendly computerized calculator
   using a normal equation format (not reverse polish). It has the ability
   to save and use 8 user definable parameters, to utilize all Fortran
   intrinsics, to perform number base conversion including hex and character
   equivalents, to edit equations on the terminal screen, to read equations
   from a disc file, and to write results to a disc file. Several user
   selectable output formats are provided. It may also be used in CI command
   files to perform branches, in addition to running other programs. An
   extensive on-line help file is included.

Additional Documentation....: Calc.help
```

F_DUMP M110

MULTI-PURPOSE FILE/TAPE DUMPING UTILITY

```
Contribution Name.....: F_DUMP
   Title..............: Multi-purpose file/tape dumping utility
   File Names.........:00. Rename Transfer File
                      :01. f_dump.sbmt
                      :02. f_dump.ftn
                      :03. f_dump.rel
                      :04. lparse.ftn
                      :05. lparse.rel
                      :06. lparse.doc
                      :07. lparse.help
                      :08. hpint.ftn
                      :09. hpint.rel
                      :10. ftibm.mac
                      :11. ftibm.rel
                      :12. bin.mac
                      :13. bin.rel
                      :14. hex.mac
                      :15. hex.rel
                      :16. dec.mac
                      :17. dec.rel
                      :18. ebcdh.ftn
                      :19. ebcdh.rel
                      :20. ftdec.mac
                      :21. ftdec.rel
                      :22. hptst.mac
                      :23. hptst.rel
                      :24. f_dump.lod
                      :25. f_dump.help
   Operating System...: RTE-A
   Uses hierarchical files?.: yes
   Language(s)........: FTN77, MACRO
   Keywords...........: 1. dump
                      : 2. files
   External Support Req'd...:
   If Re-submission, Reason.: Update to BTDMP
Contributor's Name.....: Thomas E. Goff
            Company....: NASA, Goddard Space Flight Center
            Street.....: Code 623
            City.......: Greenbelt
            State......: Maryland
            Country....: USA
            Zip Code...: 20771
            Phone Number..: (301) 286-7568
Program Abstract.....: This program is used to dump (in great detail)
the contents of either a disc file or a magnetic tape. The dump can occur at
a user specified file and/or record. The output form of the dump can be in
any combination of hex, octal, binary, integer, ASCII, EBCDIC, byte swap,
Integer*2, Integer*4, HP real*4, HP real*8, IBM real*4, IBM real*8, DEC
real*4, DEC real*8, etc
Additional Documentation....: f_dump.help
```

TERM_INIT M111

A TERMINAL SOFT KEY INITIALIZATION PROGRAM

```
Contribution Name.....: Term_init
   Title..............: A terminal soft key initialization program
   File Names.........:00. Rename Transfer File
                      :01. Term_init.sbmt
                      :02. Term_init.ftn
                      :03. Term_init.rel
                      :04. Term_init.lod
                      :05. Term_init.help
   Operating System...: RTE-A
   Uses hierarchical files?.: n/a
   Language(s)........: FTN77
   Keywords...........: 1. softkeys
                      : 2. terminal
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Thomas E. Goff
            Company...: NASA, Goddard Space Flight Center
            Street....: Code 623
            City......: Greenbelt
            State.....: Maryland
            Country...: USA
            Zip Code..: 20771
            Phone Number..: (301) 286-7568
Program Abstract......: This program is used to set the soft keys
and tabs on HP terminals to default values useful for EDIT/1000 and FORTRAN.
It is smart enough to program old terminals in the 264x series as well as the
newer 262x, 239x, and 700/ series.
Additional Documentation....: term_init.help
```

COPY M112

FILE/TAPE COPYING WITH BLOCKING & CONVERSION

```
Contribution Name.....: COPY
   Title..............: File/tape copying with blocking & conversion
   File Names.........:00. Rename Transfer File
                      :01. copy.sbmt
                      :02. copy.ftn
                      :03. copy.rel
                      :04. copy.lod
                      :05. ebcdh.ftn
                      :06. ebcdh.rel
                      :07. lparse.ftn
                      :08. lparse.rel
                      :09. lparse.doc
                      :10. lparse.help
                      :11. copy.help
   Operating System...: RTE-A
   Uses hierarchical files?.:
   Language(s)........: FTN77, MACRO
   Keywords...........: 1. copy
                      : 2. magnetic_tape
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name....: Thomas E. Goff
            Company...: NASA, Goddard Space Flight Center
            Street....: Code 623
            City......: Greenbelt
            State.....: Maryland
            Country...: USA
            Zip Code..: 20771
            Phone Number..: (301) 286-7568
Program Abstract......: The intent of this program is to provide a
method of blocking and/or deblocking records to/from a file and/or mag tapes.
This allows the separation and concatenation of logical records contained
in either a disc file or on magnetic tape to be separated or combined into
physical records in either a disc file or magnetic tape. Versatility is
allowed by accepting EDIT/1000 variable length record files, then fixing
and blocking these logical records onto mag tape records, primarily for
other computer systems. At the same time, the input records can be changed
from a binary to ASCII form or visa versa. The program is currently used
for blocking/deblocking purposes, but additional work will be performed in
the future for added conversion facilities. Updates will follow!

Additional Documentation....: copy.help
```

IOP M113

FANCY CI IO COMMAND

```
Contribution Name.....: IOP
   Title..............: fancy CI IO command
   File Names.........:00. Rename Transfer File
                      :01. iop.sbmt
                      :02. iop.ftn
                      :03. iop.rel
                      :04. iop.lod
                      :05. iop.help
   Operating System...: RTE-A
   Uses hierarchical files?.:
   Language(s)........:
   Keywords...........: 1. I/O
                      : 2. System
   External Support Req'd...:
   If Re-submission, Reason.: Updated version for D-mux and SPORT
Contributor's Name....: Thomas E. Goff
            Company...: NASA, Goddard Space Flight Center
            Street....: Code 623
            City......: Greenbelt
            State.....: Maryland
            Country...: USA
            Zip Code..: 20771
            Phone Number..: (301) 286-7568
```

```
Program Abstract.............: Here is an alternative to the system program IO
 which gives much more information about the port that is connected to the
 LU or LU's specifed in the run string. This is an update to Dan Feldman's
 original contribution.

Additional Documentation....: iop.help
```

PRT M114

A FILE PRINTING FACILITY WITH ESCAPE CODES

```
Contribution Name...........: PRT
   Title....................: A file printing facility with escape codes
   File Names..............:00. Rename Transfer File
                           :01. prt.sbmt
                           :02. $oldprint.lib
                           :03. prt.ftn
                           :04. prt.rel
                           :05. prt.lod
                           :06. ffl.ftn
                           :07. ffl.rel
                           :08. oldp0.ftn
                           :09. oldp0.rel
                           :10. oldp0.lod
                           :11. bin.mac
                           :12. bin.rel
                           :13. hex.mac
                           :14. hex.rel
                           :15. prt.help
                           :16. oldp0.help
   Operating System,.......: RTE-A
   Uses hierarchical files?.: yes
   Language(s).............: FTN77, MACRO
   Keywords................: 1. printer
                           : 2. formatting
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........: Thomas E. Goff
              Company.......: NASA, Goddard Space Flight Center
              Street........: Code 623
              City..........: Greenbelt
              State.........: Maryland
              Country.......: USA
              Zip Code......: 20771
              Phone Number..: (301) 286-7568
Program Abstract............: This program is a very much modified version of
 the first release of HP's PRINT program. This program gives more flexibility
 in the form of the printout by searching for escape codes in the original
 file and turning on display functions on the output device to print all
 characters - not just the normal ASCII ones. In addition, the output form
 may be specified as hex, octal, etc; and may be directed to any LU with
 several options such as on/off line numbering and on/off titles. If you
 want file masking, use the new HP utility PRINT.

Additional Documentation....: prt.help
```

WHOLOCK M115

WHO LOCKED THE LU'S

```
Contribution Name...........: WHOLOCK
   Title....................: WHo locked the LU's
   File Names..............:00. Rename Transfer File
                           :01. wholock.sbmt
                           :02. wholock.ftn
                           :03. wholock.rel
                           :04. wholock.lod
                           :05. lparse.ftn
                           :06. lparse.rel
                           :07. lparse.doc
                           :08. lparse.help
                           :09. wholock.help
   Operating System,.......: RTE-A
   Uses hierarchical files?.: n/a
   Language(s).............: FTN77
   Keywords................: 1. System
                           : 2. Reports
   External Support Req'd...:
   If Re-submission, Reason.: Updated and cleaner version of another CSL prgm
Contributor's Name..........: Thomas E. Goff
              Company.......: NASA, Goddard Space Flight Center
              Street........: Code 623
              City..........: Greenbelt
              State.........: Maryland
              Country.......: USA
              Zip Code......: 20771
              Phone Number..: (301) 286-7568
Program Abstract............: This little program tells you who the LU
 locker is on your computer. It is nice to have when your program won't
 run and WH says it is device suspended waiting for a LU unlock. This
 program tells you who the offender is.

Additional Documentation....: wholock.help
```

SET_TIME M116

AUTOMATICALLY SET SYSTEM TIME FROM HAYES CLOCK

```
Contribution Name...........: SET_TIME
   Title....................: Automatically set system time from Hayes clock
   File Names..............:00. Rename Transfer File
                           :01. set_time.sbmt
                           :02. set_time.ftn
                           :03. set_time.rel
                           :04. set_time.lod
                           :05. lparse.ftn
                           :06. lparse.rel
                           :07. lparse.doc
```

```
                                :08. lparse.help
                                :09. set_time.help
   Operating System.....: RTE-A
   Uses hierarchical files?.: yes
   Language(s).....: FTN77
   Keywords.....: 1. time
                  : 2. System
   External Support Req'd...: Hayes Chronograph
   If Re-submission, Reason.:
Contributor's Name.....: Thomas E. Goff
            Company.....: NASA, Goddard Space Flight Center
            Street.....: Code 623
            City.....: Greenbelt
            State.....: Maryland
            Country.....: USA
            Zip Code.....: 20771
            Phone Number..: (301) 286-7568
Program Abstract.....: A less expensive method for setting the RTE-A
 system clock at boot-up time by using the Hayes Chronograph instead of the
 HP external clock on HPIB. The program: Set Time allows the user to set the
 Hayes chronograph from a user friendly dialog.
Additional Documentation....: /help/time and /help/set_time. Execute the
 program Time in your welcome file. The chronograph is interfaced to the
 computer via the 12040 mux card (including the D-mux).
```

CHAR M117

PRODUCE A CHARACTER SET DISPLAY

```
Contribution Name.....: CHAR
   Title.....: produce a character set display
   File Names.....:00. Rename Transfer File
                  :01. char.sbmt
                  :02. char.ftn
                  :03. char.rel
                  :04. char.lod
                  :05. char.help
   Operating System.....: RTE-A
   Uses hierarchical files?.: n/a
   Language(s).....: FTN77
   Keywords.....: 1. character
                  : 2. terminal
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Thomas E. Goff
            Company.....: NASA, Goddard Space Flight Center
            Street.....: Code 623
            City.....: Greenbelt
            State.....: Maryland
            Country.....: USA
            Zip Code.....: 20771
            Phone Number..: (301) 286-7568
Program Abstract.....: This program outputs all combinations of
 characters to a specified output LU (default is your terminal) with
 display functions on. It is useful for determining which characters are
 displayable on any HP device. It is also handy for printimg the current
 character set on the LaserJet printer. It is quite informative to run
 this program on various terminals to see the differences in their responses
 to the same output characters.

Additional Documentation.....: Even with display functions on, strange things
 can happen - such as a <c/r> (carrage return) will produce a carrage return
 but a line feed will not line feed. Several characters do nothing on a
 terminal: not even a space holder. This is normal for a null character
 but occurs for other characters depending upon the terminal type.
            See also: char.help
```

GJOB M200

VARIOUS PROGRAMS FROM DSD

```
Contribution Name.....:  GJOB
   Title.....: Various programs from DSD
   File Names.....:00. Rename Transfer File
                  :01. GJOB.sbmt
                  :02. GJOB.DOC
                  :03. CHECK.LST
                  :04. #FORM
   Operating System(s).....: RTE-6 and RTE-A
   Language(s).....:
   Keywords.....: 1.  System
                  : 2.  Help
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
            Company.....:  Hewlett-Packard
            Street.....:  Data Systems Division
            City.....:  Sunnyvale
            State.....:  California
            Country.....:  USA
            Zip Code.....:  94586
            Phone Number..:
            Telex.....:
Contribution Abstract.....:  The GJOB programs were contributed by
HP's Data Systems Division to INTEREX at the 1987 San Jose conference.
They consist of a collection of programs, not necessarily related,
written and used by the systems programmers working on the HP1000.
The GJOB submission contains some documentation relating to the collection
as a whole.  Most individual submissions have their own documentation.
Sometimes this is a DOC file and sometimes you run the program, often
with a ? after it.
 Some contributions require additional libraries.  These libraries are
contributions following this one. The names are:
          ANTLB,CCSC,CURSR,DB,SESS,TMLB,UTLB
 Some contributions work only on RTE-6 or
RTE-A, but not both.  Where possible, this has been noted.
The file CHECK.LST shows what was done to the contributions in assembling
this tape.  After the original GJOB tape was distributed it was
discovered that some programs using masking still had the pre-rev 5.0
DCB size (356 words) and that has been corrected at CSL release 2830.
```

GJOBLIB/CURSR M201

GJOB LIBRARY (PART 1 OF 8)

```
Contribution Name.....:  GJOBLIB/CURSR
   Title..............: GJOB Library (part 1 of 8)
   File Names.........:00. Rename Transfer File
                      :01. cursr.sbmt
                      :02. CURSR.FTN
                      :03. CURSR.LIB
                      :04. CURSR.MAKE
                      :05. CURSR.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
               Company.....:  Hewlett-Packard
               Street......:  Data Systems Division
               City........:  Sunnyvale
               State.......:  California
               Country.....:  USA
               Zip Code....:  94586
               Phone Number..:
               Telex.......:
Contribution Abstract.....:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/UTLB M202

GJOB LIBRARY (PART 2 OF 8)

```
Contribution Name.....:  GJOBLIB/UTLB
   Title..............: GJOB Library (part 2 of 8)
   File Names.........:00. Rename Transfer File
                      :01. utlb1.sbmt
                      :02. $GPLBX
                      :03. %$UTLB
                      :04. %ALDSK
                      :05. %ASCII
                      :06. %BLKRD
                      :07. %CALC
                      :08. %CAPS
                      :09. %CHSUB
                      :10. %CLOSX
                      :11. %COMMA
                      :12. %CRNCK
                      :13. %DISP
                      :14. %DSET
                      :15. %DXEC
                      :16. %ERROR
                      :17. %FG.LU
                      :18. %FMER
                      :19. %FORCE
                      :20. %ICNVX
                      :21. %ICOMB
                      :22. %IFBRX
                      :23. %IFGLU
                      :24. %IMER
                      :25. %IOPSY
                      :26. %IOVRD
                      :27. %IREAD
                      :28. %ISCAN
                      :29. %ISFB
                      :30. %ISOL8
                      :31. %ISRCH
                      :32. %JULDT
                      :33. %LKWRD
                      :34. %LULOK
                      :35. %MAPUC
                      :36. %MOVBT
                      :37. %MOVW
                      :38. %MSCX
                      :39. %MYNAM
                      :40. %NAMCK
                      :41. %OPENX
                      :42. %OUTB
                      :43. %PARSS
                      :44. %PNAMR
                      :45. %RESET
                      :46. %RNAMR
                      :47. %RTPAR
                      :48. %RWND
                      :49. %SET
                      :50. %SPACE
                      :51. %SQUSH
                      :52. %SUBKY
                      :53. %XCNVI
                      :54. &$UTLB
                      :55. &ALDSK
                      :56. &ASCII
                      :57. &BLKRD
                      :58. &CALC
                      :59. &CAPS
                      :60. &CHSUB
                      :61. &CLOSX
                      :62. &CRNCK
                      :63. &DISP
                      :64. &DSET
                      :65. &DXEC
                      :66. &ERROR
                      :67. &FMER
                      :68. &FORCE
                      :69. &ICOMB
                      :70. &IFBRX
                      :71. &IFGLU
                      :72. &IMER
                      :73. &IOPSY
                      :74. &IOVRD
```

```
                                :75. &IREAD
                                :76. &ISCAN
                                :77. &ISFB
                                :78. &ISOL8
                                :79. &ISRCH
                                :80. &JULDT
                                :81. &LKWRD
                                :82. &LULOK
                                :83. &MOVBT
                                :84. &MOVW
                                :85. &MSCX
                                :86. &MYNAM
                                :87. &NAMCK
                                :88. &OPENX
                                :89. &OUTB
                                :90. &PARSS
                                :91. &PNAMR
                                :92. &RESET
                                :93. &RNAMR
                                :94. &RTPAR
                                :95. &SET
                                :96. &SPACE
                                :97. &SQUSH
                                :98. ISOL8.MAC
                                :99. ISOL8.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1.  Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
              Company......:  Hewlett-Packard
              Street.......:  Data Systems Division
              City.........:  Sunnyvale
              State........:  California
              Country......:  USA
              Zip Code.....:  94586
              Phone Number..:
              Telex........:
Contribution Abstract......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/UTLB M203

GJOB LIBRARY (PART 3 OF 8)

```
Contribution Name..........:  GJOBLIB/UTLB
   Title...................: GJOB Library (part 3 of 8)
   File Names..............:00. Rename Transfer File
                          :01. utlb2.sbmt
                          :02. UTLB.LIB
                          :03. UTLB.MRG
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
              Company......:  Hewlett-Packard
              Street.......:  Data Systems Division
              City.........:  Sunnyvale
              State........:  California
              Country......:  USA
              Zip Code.....:  94586
              Phone Number..:
              Telex........:
Contribution Abstract......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/TMLB M204

GJOB LIBRARY (PART 4 OF 8)

```
Contribution Name..........:  GJOBLIB/TMLB
   Title...................: GJOB Library (part 4 of 8)
   File Names..............:00. Rename Transfer File
                          :01. tmlb.sbmt
                          :02. $TMLB
                          :03. $TMLB6
                          :04. $TMLBA
                          :05. %$TMLB
                          :06. %ADTIM
                          :07. %APRNT
                          :08. %DATSC
                          :09. %FMER
                          :10. %ISOL8
                          :11. %ISRCH
                          :12. %JULDT
                          :13. %JULDY
                          :14. %MOVBT
                          :15. %PARSD
                          :16. %PARSP
                          :17. %QREAD
                          :18. %SECDT
                          :19. %TERR
                          :20. %TMLB6
                          :21. %TMLBA
                          :22. %TMLBA2
                          :23. %TMLBX
                          :24. &$TMLB
                          :25. &ADTIM
                          :26. &APRNT
                          :27. &DATSC
                          :28. &FMER
                          :29. &IGET1
                          :30. &ISOL8
                          :31. &ISRCH
```

```
                                  :32. &JULDT
                                  :33. &JULDY
                                  :34. &MOVBT
                                  :35. &PARSD
                                  :36. &PARSP
                                  :37. &QREAD
                                  :38. &SECDT
                                  :39. &TERR
                                  :40. &TMLB6
                                  :41. &TMLBA2
                                  :42. &TMLBX
                                  :43. IGET1.REL
                                  :44. T.CMD
                                  :45. TIMEDIFF.FTN
                                  :46. TIMEDIFF.REL
                                  :47. TIME ROUTINES.TXT
                                  :48. TMLB.LIB
                                  :49. TMLB.MAKE
                                  :50. TMLB.MRG
                                  :51. TMLB6.MRG
                                  :52. TMLBA.MRG
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Library
    External Support Req'd...:
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
               Company......:  Hewlett-Packard
               Street.......:  Data Systems Division
               City.........:  Sunnyvale
               State........:  California
               Country......:  USA
               Zip Code.....:  94586
               Phone Number..:
               Telex........:
Contribution Abstract.......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/SESS

M205

GJOB LIBRARY (PART 5 OF 8)

```
Contribution Name...........:  GJOBLIB/SESS
   Title....................: GJOB Library (part 5 of 8)
   File Names..............:00. Rename Transfer File
                           :01. sess.sbmt
                           :02. MAKEFILE
                           :03. SESS.MAC
                           :04. SESS.REL
                           :05. SESS6.LIB
                           :06. SESS6.MAC
                           :07. SESS6.MRG
                           :08. SESS6.REL
                           :09. SESSA.LIB
                           :10. SESSA.MAC
                           :11. SESSA.MRG
                           :12. SESSA.REL
                           :13. SESSCALLS.LST
                           :14. SESSCALLS.TXD
                           :15. SESSINFO.FTN
                           :16. SESSINFO.LOD
                           :17. SESSINFO.REL
                           :18. TEST.FTN
                           :19. TEST.LOD
                           :20. TEST.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
               Company......:  Hewlett-Packard
               Street.......:  Data Systems Division
               City.........:  Sunnyvale
               State........:  California
               Country......:  USA
               Zip Code.....:  94586
               Phone Number..:
               Telex........:
Contribution Abstract.......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/DB

M206

GJOB LIBRARY (PART 6 OF 8)

```
Contribution Name...........:  GJOBLIB/DB
   Title....................: GJOB Library (part 6 of 8)
   File Names..............:00. Rename Transfer File
                           :01. db.sbmt
                           :02. %DLIB2
                           :03. DBWLOCK.LIB
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
               Company......:  Hewlett-Packard
               Street.......:  Data Systems Division
               City.........:  Sunnyvale
               State........:  California
               Country......:  USA
               Zip Code.....:  94586
               Phone Number..:
               Telex........:
Contribution Abstract.......:
```

Some of the GJOB contributions require the use of this, or one of the
other, GJOB libraries.
Additional Documentation....: see Gjob.doc file

GJOBLIB/CCSC M207

GJOB LIBRARY (PART 7 OF 8)

```
Contribution Name...........:  GJOBLIB/CCSC
   Title....................: GJOB Library (part 7 of 8)
   File Names..............:00. Rename Transfer File
                           :01. ccs.sbmt
                           :02. $CCSC.LIB
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  David Boskey
              Company.......:  CCS
              Street........:  33 W. Main Street
              City..........:  Holmdel
              State.........:  New Jersey
              Country.......:  USA
              Zip Code......:  07733-3302
              Phone Number..:  (201) 946-3800
              Telex.........:  642672 CCSHOLM
Contribution Abstract.......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

GJOBLIB/ANTLB M208

GJOB LIBRARY (PART 8 OF 8)

```
Contribution Name...........:  GJOBLIB/ANTLB
   Title....................: GJOB Library (part 8 of 8)
   File Names..............:00. Rename Transfer File
                           :01. antlb.sbmt
                           :02. ANTFS.FTN
                           :03. ANTFS.REL
                           :04. ANTLB.LIB
                           :05. ANTLB.MAC
                           :06. ANTLB.MAKE
                           :07. ANTLB.MRG
                           :08. ANTLB.REL
                           :09. COMPAREWORDS.MAC
                           :10. COMPAREWORDS.REL
                           :11. HPCRT.DOC
                           :12. ZASCI.MAC
                           :13. ZASCI.REL
                           :14. ZDASC.MAC
                           :15. ZDASC.REL
                           :16. ZINVR.MAC
                           :17. ZINVR.REL
                           :18. ZUESC.MAC
                           :19. ZUESC.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Library
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Alan Tibbetts
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
 Some of the GJOB contributions require the use of this, or one of the
 other, GJOB libraries.
Additional Documentation....:  see Gjob.doc file
```

ACDA M209

RTE-A CRASH DUMP ANALYZER

```
Contribution Name...........:  ACDA
   Title....................: RTE-A Crash Dump Analyzer
   File Names..............:00. Rename Transfer File
                           :01. acda.sbmt
                           :02. ACDA.DBG
                           :03. ACDA.DOC
                           :04. ACDA.LOD
                           :05. ACDA.MAP
                           :06. ACDA.REL
   Operating System(s).....:
   Language(s).............: Pascal
   Keywords................: 1. Analyzer
                           : 2. Dump
                           : 3. System
   External Support Req'd...: Pascal_CDS.lib
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
The crash dump analyser for RTE-A.  This program, which has a CMMA style
```

user interface, does a post-mortem on the dump of a crashed system. An essential tool for the system integrators toolkit. Requires Pascal_CDS.lib rev. 5.0 to load properly.
This contribution was provided by HP with no source code.

ACODE M210

AREA CODE

```
Contribution Name...........:  ACODE
   Title....................: Area Code
   File Names..............:00. Rename Transfer File
                           :01. acode.sbmt
                           :02. ACODE.FTN
                           :03. ACODE.LOD
                           :04. ACODE.MAKE
                           :05. ACODE.REL
                           :06. PCODE.FTN
                           :07. PCODE.REL
                           :08. ZONE.FTN
                           :09. ZONE.REL
                           :10. ZOTBL.MAC
                           :11. ZOTBL.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Geodesy
                           : 2. Mail
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
            Company.......:  Hewlett-Packard
            Street........:  Data Systems Division
            City..........:  Sunnyvale
            State.........:  California
            Country.......:  USA
            Zip Code......:  94586
            Phone Number..:
            Telex.........:
Contribution Abstract.......:
Given an Area Code, this program will reveal the geographic location as
well as the time difference. Based on California (PST) as the local
time reference. Time for local is drawn from the system. If used in other
time zones, source will need to be modified.
```

ALARM M211

COMPUTERIZED ALARM CLOCK

```
Contribution Name...........:  ALARM
   Title....................: Computerized Alarm Clock
   File Names..............:00. Rename Transfer File
                           :01. alarm.sbmt
                           :02. ALARM.DBG
                           :03. ALARM.FTN
                           :04. ALARM.LOD
                           :05. ALARM.MAKE
                           :06. ALARM.REL
                           :07. ALARM_REMOTE.LOD
                           :08. BUGS
                           :09. FREELU.TXT
                           :10. STARTUP_REMOTE.CMD
                           :11. TIMER.DBG
                           :12. TIMER.DOC
                           :13. TIMER.FTN
                           :14. TIMER.LOD
                           :15. TIMER.REL
                           :16. TIMER_CONFIG.INC
                           :17. TIMER_INSTALL
                           :18. TIMER_REMOTE.LOD
                           :19. TPRNT.FTN
                           :20. TPRNT.REL
                           :21. USERS
   Operating System(s).....: RTE-6
   Language(s).............:
   Keywords................: 1. Interrupt
                           : 2. Scheduling
                           : 3. Mail
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
            Company.......:  Hewlett-Packard
            Street........:  Data Systems Division
            City..........:  Sunnyvale
            State.........:  California
            Country.......:  USA
            Zip Code......:  94586
            Phone Number..:
            Telex.........:
Contribution Abstract.......:
A multiple set-point full function computerized alarm clock for RTE users.
This one will write the messages to your screen in a non-destructive manner,
even if you are in an EDIT 1000 screen. Works on local or with remote DS
systems. Read file timer_install for installation procedures.
This program is for RTE-6 systems.
```

ANNIV M212

ANNIVERSARIES

```
Contribution Name...........:  ANNIV
   Title....................: Anniversaries
   File Names..............:00. Rename Transfer File
                           :01. anniv.sbmt
                           :02. ANNIV.DAT
                           :03. ANNIV.FTN
                           :04. ANNIV.HLP
                           :05. ANNIV.LOD
                           :06. ANNIV.MAKE
```

```
                                :07. ANNIV.REL
                                :08. ANNIVERSARY
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Date
                           : 2. Calendar
                           : 3. Time
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract.....:
Anniversary reminder program.  The dates come from a file of important
events that you wish to be reminded (warned?) about.
```

CALLS — M213

HELP FILE FOR SUBROUTINE CALLS

```
Contribution Name..........:  CALLS
   Title...................: Help file for subroutine calls
   File Names..............:00. Rename Transfer File
                          :01. calls.sbmt
                          :02. BASE_RTE_CALLS.TXT
                          :03. CALLM.DBG
                          :04. CALLM.FTN
                          :05. CALLM.LOD
                          :06. CALLM.REL
                          :07. CALLS.DBG
                          :08. CALLS.FTN
                          :09. CALLS.LOD
                          :10. CALLS.MAKE
                          :11. CALLS.REL
                          :12. COMMENTLINE.MAC
                          :13. COMMENTLINE.REL
                          :14. FMGR_COMMANDS.TXT
                          :15. FMP_CALLS.TXT
                          :16. HPCRT.CALL
                          :17. INSERT.MAC
                          :18. INSERT.REL
                          :19. OTHER_RTE_CALLS.TXT
                          :20. RTE.CMRG
                          :21. VIS_CALLS.TXT
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Help
                          : 2. Documentation
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract.....:
This program accesses a database that explains how to call the various HP
subroutines.  Think of it as an on-line version of the RTE quick reference
guide (using the supplied data files).  Easily extended by the user to become
an on-line help for any subject. Contains CALLM, which extracts the help
blocks used by CALLS from comments within source files. Allows you to
write the documentation into the source, right where it belongs.
Requires HPCRT.LIB (rev. 5.0) to load properly.
```

CFILES — M214

COMPARE FILES

```
Contribution Name..........:  CFILES
   Title...................: Compare files
   File Names..............:00. Rename Transfer File
                          :01. cfiles.sbmt
                          :02. CFILES.FTN
                          :03. CFILES.LOD
                          :04. CFILES.MAKE
                          :05. CFILES.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Compare
                          : 2. Files
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract.....:
Compare files under two directory trees. RU,CFILES for help.
```

CHNAM M215

FIX DEBUG FILES

```
Contribution Name.....:  CHNAM
   Title..............: Fix debug files
   File Names.........:00. Rename Transfer File
                      :01. chnam.sbmt
                      :02. CHNAM.FTN
                      :03. CHNAM.HLP
                      :04. CHNAM.LOD
                      :05. CHNAM.MAKE
                      :06. CHNAM.REL
   Operating System(s).:
   Language(s).........:
   Keywords............: 1. Debug
                      : 2. Relocatable
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
            Company....:  Hewlett-Packard
            Street.....:  Data Systems Division
            City.......:  Sunnyvale
            State......:  California
            Country....:  USA
            Zip Code...:  94586
            Phone Number..:
            Telex.....:
Contribution Abstract.....:
Changes the Debug source file descriptors in the relocatables so that when
files are moved it is not necessary to re-compile all the routines just for
debugging. RU,CHNAM for help.
```

CMMA M216

CMMA SYSTEM ANALYZER

```
Contribution Name.....:  CMMA
   Title..............: CMMA System Analyzer
   File Names.........:00. Rename Transfer File
                      :01. cmma.sbmt
                      :02. CMMA.FTN
                      :03. CMMA.LOD
                      :04. CMMA.MAKE
                      :05. CMMA.REL
                      :06. CSCUP.MAC
                      :07. CSCUP.REL
                      :08. GETCH.REL
                      :09. IGETA.MAC
                      :10. IGETA.REL
                      :11. INVRS.REL
                      :12. STACK.REL
   Operating System(s).: RTE-A
   Language(s).........:
   Keywords............: 1. System
                      : 2. Analyzer
                      : 3. System_tables
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
            Company....:  Hewlett-Packard
            Street.....:  Data Systems Division
            City.......:  Sunnyvale
            State......:  California
            Country....:  USA
            Zip Code...:  94586
            Phone Number..:
            Telex.....:
Contribution Abstract.....:
The traditional CMMA program, only updated so that it is transportable.
Requires a force load if you do not have BIGDS.LIB. (missing source files
for STACK and INVRS).
```

CMPND M217

COMPRESS/EXPAND ASCII FILES

```
Contribution Name.....:  CMPND
   Title..............: Compress/Expand ASCII files
   File Names.........:00. Rename Transfer File
                      :01. cmpnd.sbmt
                      :02. CMPND.DBG
                      :03. CMPND.FTN
                      :04. CMPND.LOD
                      :05. CMPND.MAKE
                      :06. CMPND.REL
   Operating System(s).:
   Language(s).........:
   Keywords............: 1. Pack
                      : 2. File_transfer
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
            Company....:  Hewlett-Packard
            Street.....:  Data Systems Division
            City.......:  Sunnyvale
            State......:  California
            Country....:  USA
            Zip Code...:  94586
            Phone Number..:
            Telex.....:
Contribution Abstract.....:
Compress/Expand ascii files by the run length encoding method.  This utility
can compress typical source files by 30% or so.
This program needs the 5.0 rev. of HPCRT.LIB.
```

DLONG M218

LIST LONG FILE NAMES

```
Contribution Name.....:  DLONG
   Title..............: List long file names
   File Names.........:00. Rename Transfer File
                      :01. dlong.sbmt
                      :02. DLONG.DOC
                      :03. DLONG.FTN
                      :04. DLONG.LOD
                      :05. DLONG.MAKE
                      :06. DLONG.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Filter
                           : 2. List
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
             Zip Code..:  94586
             Phone Number..:
             Telex.....:
Contribution Abstract.....:
This program creates a list of full file names, one per line, that match
a file mask.  It is useful when creating command files to do things to
a list of files. Somewhat like the old QDL would do, including file type,
size, etc.
```

DXI M219

DEBUG INFORMATION EXTRACTION INTERFACE

```
Contribution Name.....:  DXI
   Title..............: Debug Information Extraction Interface
   File Names.........:00. Rename Transfer File
                      :01. dxi.sbmt
                      :02. BOOLEANS.FTNI
                      :03. DXI.DOC
                      :04. DXI.MAKE
                      :05. DXIDATA.FTN
                      :06. DXIDATA.REL
                      :07. DXILAND.FTN
                      :08. DXILAND.LIB
                      :09. DXILAND.REL
                      :10. EE.FTN
                      :11. EE.LOD
                      :12. EE.REL
                      :13. EEMSGS.R000
                      :14. EEMSGS.S000
                      :15. MEM.FTNI
                      :16. SYMBOLTABLE.FTNI
                      :17. SYMBOLTABLEDEF.FTNI
                      :18. TOKENS.FTNI
                      :19. USEFUL_CHARS.FTNI
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Debug
                           : 2. System_tables
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
             Zip Code..:  94586
             Phone Number..:
             Telex.....:
Contribution Abstract.....:
Debug Information Extraction Interface.  This set of subroutines can be used
to access the information generated by LINK when a program is loaded with
the DEBUG option.  Symbol tables, addresses, etc. are available. Needs
DEBUGA.REL from the Symbolic Debugger to load properly. Includes the
program EE, which makes use of the editor.
```

E4 M220

E4 EDITOR

```
Contribution Name.....:  E4
   Title..............: E4 Editor
   File Names.........:00. Rename Transfer File
                      :01. e4.sbmt
                      :02. $ED1K6
                      :03. $ED1KA
                      :04. %ED000
                      :05. E4.DOC
                      :06. E4.LOD
                      :07. E4.LST
                      :08. E4.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Editor
                           : 2. Graphics
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
```

```
                    Zip Code.....:  94586
                    Phone Number..:
                    Telex........:
Contribution Abstract.....:
A version of EDIT/1000 that has block move capabilities along with some
graphics capability using the line drawing character set of the HP
terminals. Needs $BIGLB to load.
This contribution was provided by HP with no source code.
```

EMACS M221

EMACS EDITOR

```
Contribution Name.....:  EMACS
   Title..............: EMACS editor
   File Names.........:00. Rename Transfer File
                      :01. emacs.sbmt
                      :02. BASIC.C
                      :03. BASIC.REL
                      :04. BIND.C
                      :05. BIND.REL
                      :06. BUFFER.C
                      :07. BUFFER.REL
                      :08. CRYPT.C
                      :09. CRYPT.REL
                      :10. DISPLAY.C
                      :11. DISPLAY.REL
                      :12. EBIND.H
                      :13. EDEF.H
                      :14. EFUNC.H
                      :15. EMACS.HLP
                      :16. EMACS.RC
                      :17. EMACS.TXT
                      :18. EPATH.H
                      :19. ESTRUCT.H
                      :20. EVAL.C
                      :21. EVAL.REL
                      :22. EVAR.H
                      :23. EXEC.C
                      :24. EXEC.REL
                      :25. FILE.C
                      :26. FILE.REL
                      :27. FILEIO_1000.C
                      :28. FILEIO_1000.REL
                      :29. HEAP_LOCATION.C
                      :30. HEAP_LOCATION.REL
                      :31. HP1000.TXT
                      :32. HP2647.CMD
                      :33. HPTERM.C
                      :34. HPTERM.REL
                      :35. INPUT.C
                      :36. INPUT.REL
                      :37. ISEARCH.C
                      :38. ISEARCH.REL
                      :39. LINE.C
                      :40. LINE.REL
                      :41. MAIN.C
                      :42. MAIN.REL
                      :43. MEMASM.H
                      :44. MENU1
                      :45. RANDOM.C
                      :46. RANDOM.REL
                      :47. README
                      :48. REGION.C
                      :49. REGION.REL
                      :50. SEARCH.C
                      :51. SEARCH.REL
                      :52. SPAWN.C
                      :53. SPAWN.REL
                      :54. TERMIO.C
                      :55. TERMIO.REL
                      :56. UEMACS.DBG
                      :57. UEMACS.LOD
                      :58. UEMACS.MAKE
                      :59. UEMACS.MAP
                      :60. UPDUPD.C
                      :61. UPDUPD.REL
                      :62. WINDOW.C
                      :63. WINDOW.REL
                      :64. WORD.C
                      :65. WORD.REL
                      :66. _STARTUP.C
                      :67. _STARTUP.REL
                      :68. _UPARSE.C
                      :69. _UPARSE.REL
   Operating System(s)....: RTE-A
   Language(s)............: C
   Keywords...............: 1. Editor
   External Support Req'd...: D-mux or OBIO mux
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
                  Company.....:  Hewlett-Packard
                  Street......:  Data Systems Division
                  City........:  Sunnyvale
                  State.......:  California
                  Country.....:  USA
                  Zip Code....:  94586
                  Phone Number..:
                  Telex.......:
Contribution Abstract.....:
The popular public domain editor has been ported to the 1000 for those users
on RTE-A with D-Rev or OBIO muxes. Written in C and requires the $CCSC.LIB
library from CCS. CCS has contributed this library to the CSL and it is
found in the /gjob/libs/ccs.dir directory. May require DSD rev. 5.0 to link.
```

MICROEMACS M222

MICROEMACS EDITOR

```
Contribution Name.....:  microEMACS
   Title..............: microEMACS editor
```

```
File Names.....:00. Rename Transfer File
               :01. microemacs.sbmt
               :02. ALINE.H
               :03. AMIGA.RC
               :04. ANSI.C
               :05. AZMAP.CMD
               :06. BASIC.C
               :07. BDATA.CMD
               :08. BIND.C
               :09. BPAGE.CMD
               :10. BUFFER.C
               :11. CRYPT.C
               :12. DG10.C
               :13. DISPLAY.C
               :14. DOLOCK.C
               :15. EBIND.H
               :16. EDEF.H
               :17. EFUNC.H
               :18. EMACS.HLP
               :19. EMACS.MSS
               :20. EMACS.RC
               :21. EMACS.TUT
               :22. ENV_PATCH.MAIL
               :23. EPATH.H
               :24. ESTRUCT.H
               :25. EVAL.C
               :26. EVAL_PATCH.MAIL
               :27. EVAR.H
               :28. EXEC.C
               :29. FILE.C
               :30. FILEIO.C
               :31. FINDCOM.CMD
               :32. FROM
               :33. FUNC.CMD
               :34. HP110.C
               :35. HP150.C
               :36. IBMPC.C
               :37. INPUT.C
               :38. ISEARCH.C
               :39. LINE.C
               :40. LOCK.C
               :41. MAIN.C
               :42. MAKEFILE.MWC
               :43. MAKEFILE.UNX
               :44. ME110.RC
               :45. ME150.RC
               :46. MENU.CMD
               :47. MENU1
               :48. NEWPAGE.CMD
               :49. PPAGE.CMD
               :50. RANDOM.C
               :51. README
               :52. REGION.C
               :53. SEARCH.C
               :54. SHELL.CMD
               :55. SPAWN.C
               :56. ST520.C
               :57. ST520.RC
               :58. TCAP.C
               :59. TERMIO.C
               :60. TIPC.C
               :61. TRAND.CMD
               :62. VMSVT.C
               :63. VT52.C
               :64. WINDOW.C
               :65. WORD.C
               :66. WPAGE.CMD
               :67. Z309.C
  Operating System(s).....: RTE-A
  Language(s).............: C
  Keywords................: 1. Editor
  External Support Req'd...: D-mux or OBIO mux
  If Re-submission, Reason.:
Contributor's Name........:  Unknown
            Company.......:  Hewlett-Packard
            Street........:  Data Systems Division
            City..........:  Sunnyvale
            State.........:  California
            Country.......:  USA
            Zip Code......:  94586
            Phone Number..:
            Telex.........:
Contribution Abstract.....:
 Believed to be a version of EMACS for various micro-computers.
 It is untested and completeness is not known.  Take your chances,
 and let us know.
```

FLAX M223

FLAX OF FLANL PACKAGE

```
Contribution Name.....:  FLAX
  Title...............:  FLAX of FLANL package
  File Names..........:00. Rename Transfer File
                      :01. flax.sbmt
                      :02. FLACK.FTN
                      :03. FLACK.LIB
                      :04. FLACK.REL
                      :05. FLANL.FTNI
                      :06. FLASH.FTN
                      :07. FLASH.FTNI
                      :08. FLASH.LOD
                      :09. FLASH.REL
                      :10. FLAX.DOC
                      :11. FLAX.FTN
                      :12. FLAX.FTNI
                      :13. FLAX.LOD
                      :14. FLAX.MAKE
                      :15. FLAX.REL
  Operating System(s).....:
  Language(s).............:
  Keywords................: 1.  Files
  External Support Req'd...:
  If Re-submission, Reason.:
Contributor's Name........:  Unknown
```

```
                    Company.......:  Hewlett-Packard
                    Street........:  Data Systems Division
                    City..........:  Sunnyvale
                    State.........:  California
                    Country.......:  USA
                    Zip Code......:  94586
                    Phone Number..:
                    Telex.........:
Contribution Abstract.........:
Additional Documentation.....:  We know nothing about this GJOB contribution
but have left it in just in case it is an undiscovered priceless gem!
If you can figure out just what it is good for, please let us know!
```

FMPERROR M224

SHOW FMP ERROR CODES

```
Contribution Name............:  FMPERROR
   Title.....................: Show FMP error codes
   File Names................:00. Rename Transfer File
                             :01. fmperror.sbmt
                             :02. FMPERR.FTN
                             :03. FMPERR.HLP
                             :04. FMPERR.LOD
                             :05. FMPERR.REL
                             :06. FMPERROR.CMD
                             :07. FMPERROR.HLP
                             :08. FMPERROR.MAKE
   Operating System(s).......:
   Language(s)...............:
   Keywords..................: 1. FMGR
                              : 2. Error
                              : 3. Help
   External Support Req'd....:
   If Re-submission, Reason..:
Contributor's Name...........:  Unknown
                    Company.......:  Hewlett-Packard
                    Street........:  Data Systems Division
                    City..........:  Sunnyvale
                    State.........:  California
                    Country.......:  USA
                    Zip Code......:  94586
                    Phone Number..:
                    Telex.........:
Contribution Abstract........:
Allows user to interactively request explanation of FMP error codes. Needs
/ uses GET.
```

FMPPROFILE M225

D.RTR ANALYZER

```
Contribution Name............:  FMPPROFILE
   Title.....................: D.RTR analyzer
   File Names................:00. Rename Transfer File
                             :01. fmpprofile.sbmt
                             :02. FMPEVENT.FTN
                             :03. FMPEVENT.REL
                             :04. FMPPROFILE.FTN
                             :05. FMPPROFILE.LOD
                             :06. FMPPROFILE.MAKE
                             :07. FMPPROFILE.REL
                             :08. LDCB.FTN
                             :09. LDCB.REL
                             :10. PROG.FTN
                             :11. PROG.LOD
                             :12. PROG.REL
   Operating System(s).......:
   Language(s)...............:
   Keywords..................: 1. Disc
                              : 2. Analyzer
   External Support Req'd....:
   If Re-submission, Reason..:
Contributor's Name...........:  Unknown
                    Company.......:  Hewlett-Packard
                    Street........:  Data Systems Division
                    City..........:  Sunnyvale
                    State.........:  California
                    Country.......:  USA
                    Zip Code......:  94586
                    Phone Number..:
                    Telex.........:
Contribution Abstract........:
Gather time statistics on the D.RTR calls in an executing program.  This can
be used to make the decisions on how to optimize the use of DCB buffer space,
whether to re-position or re-open, etc. RU,FMPPROFILE for help.
```

FORM M226

FORMS GENERATOR

```
Contribution Name............:  FORM
   Title.....................: Forms generator
   File Names................:00. Rename Transfer File
                             :01. form.sbmt
                             :02. "TFORM
                             :03. ASMSC.FTN
                             :04. ASMSC.REL
                             :05. ASMTB.FTN
                             :06. ASMTB.REL
                             :07. FORM.FTN
                             :08. FORM.HLP
                             :09. FORM.LOD
                             :10. FORM.MAKE
                             :11. FORM.REL
                             :12. TFOR1.MAC
                             :13. TFOR1.REL
                             :14. TFOR2.MAC
                             :15. TFOR2.REL
```

```
                                :16. [TFOR2
                                :17. [TFORM
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Forms
                            : 2. Generation
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract......:
Screen builder for forms mode applications, somewhat similar to FORMS/1000.
Smaller and faster but not as many bells or whistles.
```

FX M227

FILE FILTERING

```
Contribution Name..........:  FX
   Title...................: File filtering
   File Names..............:00. Rename Transfer File
                           :01. fx.sbmt
                           :02. FX.FTN
                           :03. FX.FTNI
                           :04. FX.HLP
                           :05. FX.LOD
                           :06. FX.MAKE
                           :07. FX.MAP
                           :08. FX.R000
                           :09. FX.REL
                           :10. FX.S000
                           :11. GREP.CMD
                           :12. REX.LIB
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Files
                            : 2. Filter
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract......:
File filtering - FX performs various file operations including:
 - concatenation of many files into one
 - text pattern searching and modification
 - binary file dumping
 - key encryption and decryption
Program needs HPCRT.LIB (rev. 5.0) to load.
```

GET M228

INTERACTIVE CI PROMPT

```
Contribution Name..........:  GET
   Title...................: Interactive CI prompt
   File Names..............:00. Rename Transfer File
                           :01. get.sbmt
                           :02. GET.FTN
                           :03. GET.HLP
                           :04. GET.LOD
                           :05. GET.MAKE
                           :06. GET.REL
                           :07. SHIFT.FTN
                           :08. SHIFT.HLP
                           :09. SHIFT.LOD
                           :10. SHIFT.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. CI
                            : 2. Command_files
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract......:
Allows a CI command file to interactively prompt the user.
```

GLOBALSPACE M229

DISC SPACE REPORT

```
Contribution Name..........:  GLOBALSPACE
   Title...................: Disc space report
   File Names..............:00. Rename Transfer File
                           :01. globalspace.sbmt
                           :02. DISCSPACE.FTN
                           :03. DISCSPACE.REL
```

```
                                :04. GLOBALSPACE.DBG
                                :05. GLOBALSPACE.FTN
                                :06. GLOBALSPACE.LOD
                                :07. GLOBALSPACE.MAKE
                                :08. GLOBALSPACE.REL
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Disc
                             : 2. Management
                             : 3. Directory
    External Support Req'd...:
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Reports disc space utilization under global directories on an LU by
LU basis. Requires 5.0 rev of FMP routines. RU,GLOBALSPACE,?? shows
help.
```

GSORT M230

FAST MULTIPLE KEY SORT FOR FILES

```
Contribution Name...........:  GSORT
   Title....................: Fast multiple key sort for files
   File Names..............:00. Rename Transfer File
                           :01. gsort.sbmt
                           :02. GSORQ.PAS
                           :03. GSORQ.REL
                           :04. GSORT.FTN
                           :05. GSORT.LOD
                           :06. GSORT.MAKE
                           :07. GSORT.REL
                           :08. GSUBS.MAC
                           :09. GSUBS.REL
                           :10. INITS.FTN
                           :11. INITS.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Sort
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Fast multiple key sort for files.  Uses VMA.  Verrry fast.
```

HPCA M231

HP RPN CALCULATOR

```
Contribution Name...........:  HPCA
   Title....................: HP RPN Calculator
   File Names..............:00. Rename Transfer File
                           :01. hpca.sbmt
                           :02. "HEADER
                           :03. CALC.HPCA
                           :04. CONVERT.FTN
                           :05. CONVERT.REL
                           :06. HPCA.ALL
                           :07. HPCA.DBG
                           :08. HPCA.DOC
                           :09. HPCA.FTN
                           :10. HPCA.HLP
                           :11. HPCA.LOD
                           :12. HPCA.MAKE
                           :13. HPCA.MRG
                           :14. HPCA.REL
                           :15. HPCA_BNRY.SCRN
                           :16. HPCA_HMS.SCRN
                           :17. HPCA_NORM.SCRN
                           :18. IGETT.FTN
                           :19. IGET1.REL
                           :20. MAKEFORMS.CMD
                           :21. SBNRY.MAC
                           :22. SBNRY.REL
                           :23. SHMS.MAC
                           :24. SHMS.REL
                           :25. SNORM.MAC
                           :26. SNORM.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Calculator
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
Contribution Abstract.......:
Interactive simulation of an HP RPN style calculator.  Has normal decimal
mode plus an octal mode and a very unusual time calculation mode. Enter
an "e" to end the program. Needs FORM (another GJOB contribution).
```

HPCA2 M232

HP RPN CALCULATOR

```
Contribution Name..........:  HPCA2
   Title...................: HP RPN Calculator
   File Names..............:00. Rename Transfer File
                          :01. hpca2.sbmt
                          :02. CALCS.MAC
                          :03. CALCS.REL
                          :04. CKEYS.MAC
                          :05. CKEYS.REL
                          :06. CURSER.FTN
                          :07. CURSER.LIB
                          :08. CURSER.REL
                          :09. CURSR.FTN
                          :10. HPCA2.DOC
                          :11. HPCA2.FTN
                          :12. HPCA2.LOD
                          :13. HPCA2.MAKE
                          :14. HPCA2.REL
                          :15. HPCA2.TTR
                          :16. TOUCHINIT.FTN
                          :17. [HPCA2
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Calculator
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract......:
Another simulator like HPCA with less features but it is graphical in that
it draws a picture of the calculator on your screen.  Keystrokes are echoed
in the picture.  Good teaching tool for the RPN-phobic.
```

HPCA3 M233

HP RPN CALCULATOR

```
Contribution Name..........:  HPCA3
   Title...................: HP RPN Calculator
   File Names..............:00. Rename Transfer File
                          :01. hpca3.sbmt
                          :02. CALCS3.MAC
                          :03. CALCS3.REL
                          :04. CKEYS3.MAC
                          :05. CKEYS3.REL
                          :06. CURSER.FTN
                          :07. CURSER.LIB
                          :08. CURSER.REL
                          :09. HPCA3.FTN
                          :10. HPCA3.LOD
                          :11. HPCA3.MAKE
                          :12. HPCA3.REL
                          :13. TOUCHINIT.FTN
                          :14. TOUCHINIT.REL
                          :15. [HPCA3
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Calculator
                          : 2. Touch
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
            Country........:  USA
            Zip Code.......:  94586
            Phone Number...:
            Telex..........:
Contribution Abstract......:
A touchscreen (HP150) version of HPCA2. Works the same with the touch
feature added.
```

KEEP M234

RP AND MAKE PROGRAM PERMANENT

```
Contribution Name..........:  KEEP
   Title...................: RP and make program permanent
   File Names..............:00. Rename Transfer File
                          :01. keep.sbmt
                          :02. KEEP.DOC
                          :03. KEEP.FTN
                          :04. KEEP.MAKE
                          :05. KEEP.REL
   Operating System(s).....: RTE-6
   Language(s).............:
   Keywords................: 1. CI
                          : 2. ID segments
                          : 3. System
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.........:  Unknown
            Company........:  Hewlett-Packard
            Street.........:  Data Systems Division
            City...........:  Sunnyvale
            State..........:  California
```

```
                    Country.......:  USA
                    Zip Code......:  94586
                    Phone Number..:
                    Telex.........:
Contribution Abstract.......:
This utility is used to RP a program and clear the session number in its ID
segment so that it will continue to execute when your session is logged off.
Useful in the WELCOM file to "RP" programs from CI volumes as well.
It also has options to control other aspects of the program, such as
cloning, making the program look permenent, and setting the "self destruct"
bit. This program is for RTE-6 systems. RU,KEEP for help.
```

KEYUP M235

UPDATE IMAGE KEYS

```
Contribution Name...........:  KEYUP
   Title....................: Update Image keys
   File Names...............:00. Rename Transfer File
                           :01. keyup.sbmt
                           :02. KEYUP.FTN
                           :03. KEYUP.LOD
                           :04. KEYUP.MAKE
                           :05. KEYUP.REL
   Operating System(s)......:
   Language(s)..............:
   Keywords.................: 1. Image
                           : 2. Editor
   External Support Req'd...: Image or Image-II
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
                 Company....:  Hewlett-Packard
                 Street.....:  Data Systems Division
                 City.......:  Sunnyvale
                 State......:  California
                 Country....:  USA
                 Zip Code...:  94586
                 Phone Number..:
                 Telex.....:
Contribution Abstract.......:
Lets you update key values in an IMAGE or IMAGE-II data base. Requires
DBMS1.LIB to load.
```

LOOKY M236

SYSTEM MAINTENANCE UTILITY

```
Contribution Name...........:  LOOKY
   Title....................: System maintenance utility
   File Names...............:00. Rename Transfer File
                           :01. looky.sbmt
                           :02. HPZINVERSEASMBF.MAC
                           :03. HPZINVERSEASMBF.REL
                           :04. LOOKM.MAC
                           :05. LOOKM.REL
                           :06. LOOKY.DBG
                           :07. LOOKY.FTN
                           :08. LOOKY.LOD
                           :09. LOOKY.MAKE
                           :10. LOOKY.REL
   Operating System(s)......: RTE-A
   Language(s)..............:
   Keywords.................: 1. Maintenance
                           : 2. System tables
                           : 3. Analyzer
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
                 Company....:  Hewlett-Packard
                 Street.....:  Data Systems Division
                 City.......:  Sunnyvale
                 State......:  California
                 Country....:  USA
                 Zip Code...:  94586
                 Phone Number..:
                 Telex.....:
Contribution Abstract.......:
Another system maintenance utility like CMMA.  This one can't alter your
disc, so is slightly less dangerous.
This program is for RTE-A only, and requires HPCRT.LIB (rev. 5.0) to load
properly.
```

MPACK M237

MASTER DISC PACKER

```
Contribution Name...........:  MPACK
   Title....................: Master Disc Packer
   File Names...............:00. Rename Transfer File
                           :01. mpack.sbmt
                           :02. >MP000
                           :03. MPACK.HELP
                           :04. MPACK.LOD
                           :05. MPACK.MAKE
                           :06. MPACK.REL
   Operating System(s)......:
   Language(s)..............:
   Keywords.................: 1. CI
                           : 2. Disc
                           : 3. Maintenance
                           : 4. Pack
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
                 Company....:  Hewlett-Packard
                 Street.....:  Data Systems Division
                 City.......:  Sunnyvale
                 State......:  California
```

```
                    Country.......:  USA
                    Zip Code......:  94586
                    Phone Number..:
                    Telex.........:
Contribution Abstract.......:
Master packer for new file system.  Re-distributes the files in a CI disc
LU to eliminate wasted space, fragmented free space, extents, etc.
This contribution was provided by HP with no source code. Needs $BIGLB
(Rev. 5.0) to load.
```

ND M238

COMMAND STACK FOR DIRECTORY NAMES

```
Contribution Name...........:  ND
   Title....................:  Command stack for directory names
   File Names...............:00. Rename Transfer File
                           :01. nd.sbmt
                           :02. LENGTH.FTN
                           :03. LENGTH.REL
                           :04. ND.FTN
                           :05. ND.REL
                           :06. ND.LOD
                           :07. DIRFIND.FTN
                           :08. DIRFIND.REL
   Operating System(s).....: RTE-6, RTE-A
   Language(s).............:
   Keywords................: 1. Directory
                           : 2. Shell
                           : 2. Interactive
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
                  Company...:  Hewlett-Packard
                  Street....:  Data Systems Division
                  City......:  Sunnyvale
                  State.....:  California
                  Country...:  USA
                  Zip Code..:  94586
                  Phone Number..:
                  Telex.....:
Contribution Abstract.......:
A replacement for the WD command that stacks the directory names for greater
agility while working within multiple directories.
```

PAWS M239

CI PAUSE COMMAND

```
Contribution Name...........:  PAWS
   Title....................:  CI Pause Command
   File Names...............:00. Rename Transfer File
                           :01. paws.sbmt
                           :02. PAWS.FTN
                           :03. PAWS.HLP
                           :04. PAWS.LOD
                           :05. PAWS.MAKE
                           :06. PAWS.OLD
                           :07. PAWS.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1.  Command_files
                           : 2.  CI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
                  Company...:  Hewlett-Packard
                  Street....:  Data Systems Division
                  City......:  Sunnyvale
                  State.....:  California
                  Country...:  USA
                  Zip Code..:  94586
                  Phone Number..:
                  Telex.....:
Contribution Abstract.......:
Implements a pause function for CI of a specified time duration.
```

PHONE M240

LEAVE A PHONE MESSAGE

```
Contribution Name...........:  PHONE
   Title....................:  Leave a phone message
   File Names...............:00. Rename Transfer File
                           :01. phone.sbmt
                           :02. ADDNAME.FTN
                           :03. ADDNAME.REL
                           :04. BUGS
                           :05. CHANGES
                           :06. CHANGES.NEXT
                           :07. COMP.CMD
                           :08. COMPDS.CMD
                           :09. ENHANCEMENTS
                           :10. GETNAME.FTN
                           :11. GETNAME.REL
                           :12. MANAGERS.CMD
                           :13. NEWPHONE.CMD
                           :14. PHODS.LOD
                           :15. PHODS.MAP
                           :16. PHODS.REL
                           :17. PHONE.FTN
                           :18. PHONE.HLP
                           :19. PHONE.INC
                           :20. PHONE.LIB
                           :21. PHONE.MAKE
                           :22. PHONELIB.MRG
                           :23. PHONE_DS.INC
                           :24. PHONE_REMOTE_6.LOD
```

```
                                  :25. PHONE_REMOTE_A.LOD
                                  :26. PHSG1.FTN
                                  :27. PHSG1.REL
                                  :28. PHSG2.FTN
                                  :29. PHSG2.REL
                                  :30. PHSG3.FTN
                                  :31. PHSG3.REL
                                  :32. PHSG4.FTN
                                  :33. PHSG4.REL
                                  :34. PHSG5.FTN
                                  :35. PHSG5.REL
                                  :36. SCHEMA
                                  :37. SYSMESS.CMD
                                  :38. TODO
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Mail
                             : 2. Message
    External Support Req'd...: DS
    If Re-submission, Reason.:
 Contributor's Name.........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
An emulation of the familiar "WHILE YOU WERE OUT" telephone message pads.
Works across systems in a DS/1000 network.  Can be used as a mini-mail
system.  Users are notified of incoming messages using the ALARM program.
Looks like it requires DS to function, and has a SCHEMA for the data base.
```

PLIST M241

PHONE LIST DATA BASE

```
Contribution Name...........:  PLIST
   Title....................: Phone list data base
   File Names..............:00. Rename Transfer File
                           :01. plist.sbmt
                           :02. FOOTING
                           :03. PHONE.MAC
                           :04. PHONE.REL
                           :05. PHONIN
                           :06. PLIST.FTN
                           :07. PLIST.LOD
                           :08. PLIST.MAKE
                           :09. PLIST.REL
                           :10. PUT.FTN
                           :11. PUT.REL
                           :12. REPPHL
                           :13. SCHEMA
                           :14. STSUB.LIB
                           :15. STSUB.REL
                           :16. [PHONE
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Mail
                           : 2. Image
                           : 3. Data_base
   External Support Req'd...: Image
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
             Company.......:  Hewlett-Packard
             Street........:  Data Systems Division
             City..........:  Sunnyvale
             State.........:  California
             Country.......:  USA
             Zip Code......:  94586
             Phone Number..:
             Telex.........:
Contribution Abstract.......:
Maintains a phone-list data base.  Prints a directory that you can put in
your time-manager folio. Requires IMAGE.
```

PREX M242

SET EXEC CALL MESSAGE LENGTH

```
Contribution Name...........:  PREX
   Title....................: Set exec call message length
   File Names..............:00. Rename Transfer File
                           :01. prex.sbmt
                           :02. PREX.FTN      Thu Jun 30, 1988 10:40:15 am
                           :03. PREX.LOD      Thu Jun 30, 1988 10:40:14 am
                           :04. PREX.MAKE     Thu Jun 30, 1988 10:40:17 am
                           :05. PREX.REL      Thu Jun 30, 1988 10:40:18 am
   Operating System(s).....:
   Language(s).............: Fortran
   Keywords................: 1. Compiler
                           : 2. Pre-processor
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
             Company.......:  Hewlett-Packard
             Street........:  Data Systems Division
             City..........:  Sunnyvale
             State.........:  California
             Country.......:  USA
             Zip Code......:  94586
             Phone Number..:
             Telex.........:
Contribution Abstract.......:
Pre-processor to fill in the message length on exec calls in fortran which
have the form "CALL EXEC(2,LU,,15HMessage to send,   )". This will be
converted to "CALL EXEC(2,LU,,15HMessage to send,-15)". RU,PREX gives help.
Not quite so useful now that HpCrt has been released.
```

PROBE M243

NETWORK NODE ANALYZER

```
Contribution Name.....:  PROBE
   Title..............: Network node analyzer
   File Names.........:00. Rename Transfer File
                      :01. probe.sbmt
                      :02. PROBE.HLP     Thu Jun 30, 1988 10:59:05 am
                      :03. PROBE.LOD     Thu Jun 30, 1988 10:59:02 am
                      :04. PROBE.REL     Thu Jun 30, 1988 10:59:04 am
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. DS
                           : 2. Network
                           : 3. Analyzer
   External Support Req'd...: DS/1000
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
             Zip Code..:  94586
             Phone Number..:
             Telex.....:
Contribution Abstract.....:
Sends a special message to a given node in a DS/1000 network.  As the
message traverses the network, the node numbers of the intermediate nodes
are captured and displayed upon return to the originating node.  This is
useful for network verification and trouble analysis. Program requires
DS on the system.
This contribution was provided by HP with no source code.
```

Computer Museum

PROLOG M244

PROLOG INTERPRETER

```
Contribution Name.....:  PROLOG
   Title..............: PROLOG interpreter
   File Names.........:00. Rename Transfer File
                      :01. prolog.sbmt
                      :02. *PROG.TEXT
                      :03. *PROLIB.TEXT
                      :04. PREADIN.OLD
                      :05. PREADIN.PAS
                      :06. PREADIN.REL
                      :07. PROLOG.DOC
                      :08. PROLOG.GLO
                      :09. PROLOG.LOD
                      :10. PROLOG.MAKE
                      :11. PROLOG.OLD
                      :12. PROLOG.OPT
                      :13. PROLOG.PAS
                      :14. PROLOG.REL
   Operating System(s).....: RTE-A
   Language(s).............:
   Keywords................: 1.  Interpreter
                           : 2.  Language
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
             Zip Code..:  94586
             Phone Number..:
             Telex.....:
Contribution Abstract.....:
This version of a portable prolog interpreter has been modified to run on
a HP-1000 system using CDS. The syntax is fairly 'standard Edinburgh' but
there is a small front-end on the interpreter which puts up ?- prompts.
This is written in the library file *PROLIB.TEXT and can be removed if
the user desires. There is also an inbuilt function stats which may be
useful during program development.
```

PUDIR M245

DIRECTORY PURGE

```
Contribution Name.....:  PUDIR
   Title..............: Directory purge
   File Names.........:00. Rename Transfer File
                      :01. pudir.sbmt
                      :02. PUDIR.CMD
                      :03. PUDIR.HLP
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Purge
                           : 2. Management
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....:  Unknown
             Company...:  Hewlett-Packard
             Street....:  Data Systems Division
             City......:  Sunnyvale
             State.....:  California
             Country...:  USA
             Zip Code..:  94586
             Phone Number..:
             Telex.....:
Contribution Abstract.....:
Purge a directory and all of its subdirectries and files.  Dangerous, but
useful command file, using GET and SHIFT from the GET contribution.
```

QRP M246

QUICK RP

```
Contribution Name...........:  QRP
   Title....................: Quick RP
   File Names..............:00. Rename Transfer File
                           :01. qrp.sbmt
                           :02. QRP.FTN
                           :03. QRP.LOD
                           :04. QRP.MAKE
                           :05. QRP.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. CI
                           : 2. System
                           : 3. Maintenance
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Quick RP program, accepts a list of programs to be RP'd in its runstring or
from a command file.  MUCH faster than CI. RU,QRP gives help.
This program needs the 5.0 rev. of HPCRT.LIB.
```

RELCHANGE M247

COMPARE RELOCATABLES

```
Contribution Name...........:  RELCHANGE
   Title....................: Compare relocatables
   File Names..............:00. Rename Transfer File
                           :01. relchange.sbmt
                           :02. RELCHANGE.FTN    Thu Jun 30, 1988 10:40:44 a
                           :03. RELCHANGE.LOD    Thu Jun 30, 1988 10:40:45 am
                           :04. RELCHANGE.MAKE   Thu Jun 30, 1988 10:40:46 am
                           :05. RELCHANGE.REL    Thu Jun 30, 1988 10:40:48 am
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Compare
                           : 2. Relocatable
                           : 3. Files
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Reports differences between relocatable files on a module by module basis.
RU,RELCHANGE gives help.
```

RPALL M248

RP, THEN OF, ALL FILES IN MASK

```
Contribution Name...........:  RPALL
   Title....................: RP, then OF, all files in mask
   File Names..............:00. Rename Transfer File
                           :01. rpall.sbmt
                           :02. RPALL.FTN     Thu Jun 30, 1988 10:38:06 am
                           :03. RPALL.LOD     Thu Jun 30, 1988 10:38:08 am
                           :04. RPALL.MAKE    Thu Jun 30, 1988 10:38:07 am
                           :05. RPALL.REL     Thu Jun 30, 1988 10:38:04 am
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. System
                           : 2. Maintenance
                           : 3. Filter
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
 RP's all programs in a specified searchpath:
      RU RPALL <searchpatch> [-E]
          where -E suppresses echo to terminal
```

RPCHK M249

CHECK FOR LEGAL PROGRAM FILES

```
Contribution Name...........:  RPCHK
   Title....................: Check for legal program files
```

```
File Names.....:00. Rename Transfer File
               :01. rpchk.sbmt
               :02. RPCHK.DOC
               :03. RPCHK.FTN
               :04. RPCHK.LOD
               :05. RPCHK.MAKE
               :06. RPCHK.REL
               :07. RPOK.MAC
               :08. RPOK.REL
Operating System(s).....: RTE-6
Language(s).....:
Keywords.....: 1. System
             : 2. Maintenance

External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Unknown
          Company.....: Hewlett-Packard
          Street.....: Data Systems Division
          City.....: Sunnyvale
          State.....: California
          Country.....: USA
          Zip Code.....: 94586
          Phone Number..:
          Telex.....:
Contribution Abstract.....:
Used to see if type 6 files (programs) can be RP'd.
It accepts a file mask to allow checking an entire directory at one pass.
It can optionally be directed to purge those files which are not RP'able.
It is especially useful after switching to a new system after SYSGEN.
This program runs in RTE-6 only.
```

RTEQ6 M250

ID SEGMENT LISTER

```
Contribution Name.....: RTEQ6
   Title.....: ID segment lister
   File Names.....:00. Rename Transfer File
               :01. RTEQ6.SBMT
               :02. MEMSZ.MAC
               :03. MEMSZ.REL
               :04. RTEQ6.DOC
               :05. RTEQ6.FTN
               :06. RTEQ6.LOD
               :07. RTEQ6.MAKE
               :08. RTEQ6.REL
   Operating System(s).....: RTE-6
   Language(s).....:
   Keywords.....: 1. ID segments
                : 2. System tables
                : 3. Maintenance

   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name.....: Unknown
          Company.....: Hewlett-Packard
          Street.....: Data Systems Division
          City.....: Sunnyvale
          State.....: California
          Country.....: USA
          Zip Code.....: 94586
          Phone Number..:
          Telex.....:
Contribution Abstract.....:
Used to display information about the ID segment of a program. It can
also be used to display the system communications area of the program
as it exists when the program is running. Needs FTN4 to compile. Compiles
with warnings with FTN7x.
This utility runs in RTE-6 only.
```

TASK M251

TIME ACCOUNTING TOOL

```
Contribution Name.....: TASK
   Title.....: Time accounting tool
   File Names.....:00. Rename Transfer File
               :01. task.sbmt
               :02. CATEGORIES
               :03. DAYS.DBG
               :04. DAYS.FTN
               :05. DAYS.LOD
               :06. DAYS.REL
               :07. DELETETASK.FTN
               :08. DELETETASK.LOD
               :09. DELETETASK.REL
               :10. LISTTASK.FTN
               :11. LISTTASK.LOD
               :12. LISTTASK.REL
               :13. SCHEMA
               :14. T.FTN
               :15. T.REL
               :16. TASK.COM
               :17. TASK.DAT
               :18. TASK.FTN
               :19. TASK.INC
               :20. TASK.LOD
               :21. TASK.MAKE
               :22. TASK.REL
               :23. TASK_BLOCK.FTN
               :24. TIME_EXAMPLE.FTN
               :25. TIME_EXAMPLE.REL
               :26. TS.FTN
               :27. TS.REL
               :28. TSCRN.MAC
               :29. TSCRN.REL
               :30. TSK01.FTN
               :31. TSK01.REL
               :32. TSK02.FTN
               :33. TSK02.REL
               :34. TSK03.FTN
               :35. TSK03.REL
```

```
                                    :36. TSK04.FTN
                                    :37. TSK04.REL
                                    :38. TSKSUB.FTN
                                    :39. TSKSUB.REL
                                    :40. TSTAT.FTN
                                    :41. TSTAT.LOD
                                    :42. TSTAT.REL
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Accounting
                            : 2. Time
                            : 3. Image
    External Support Req'd...: Image
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Keeps track of time spent on different activities.  Time accounting tool,
especially useful to professionals (such as consultants) who charge by the
hour. Requires DBMS1.lib from IMAGE.
```

TERM_TYPE — M252

OBTAIN TERMINAL TYPE

```
Contribution Name...........:  TERM_TYPE
   Title....................: Obtain terminal type
   File Names..............:00. Rename Transfer File
                           :01. term_type.sbmt
                           :02. TERM_TYPE.FTN
                           :03. TERM_TYPE.HLP
                           :04. TERM_TYPE.LOD
                           :05. TERM_TYPE.MAKE
                           :06. TERM_TYPE.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Terminal
                           : 2. System
   External Support Req'd...: HP terminals with ID's
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Returns the terminal type identification from the newer HP terminals in a
CI variable so it is accessable from command files.
```

TN — M253

REMOTE LOGON MONITOR

```
Contribution Name...........:  TN
   Title....................: Remote LOGON monitor
   File Names..............:00. Rename Transfer File
                           :01. tn.sbmt
                           :02. TN.LOD
                           :03. TN.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Logon/logoff
                           : 2. Scheduling
                           : 3. DS
   External Support Req'd...: DS/1000
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Remote logon monitor program, allows you to easily start up a session on
another DS/1000 system via virtual terminal support. Does setup and
cleanup as well. Program requires DS on the system.
This contribution was provided by HP with no source code.
```

TRFIL — M254

FMGR TRANSFER FILE INTERPRETER

```
Contribution Name...........:  TRFIL
   Title....................: FMGR transfer file interpreter
   File Names..............:00. Rename Transfer File
                           :01. trfil.sbmt
                           :02. ATOB.FTN
                           :03. ATOB.REL
                           :04. DEMO
                           :05. DEMO.OUT
                           :06. GTOP.FTN
                           :07. GTOP.REL
                           :08. TRFIL.DOC
                           :09. TRFIL.FTN
```

```
                                :10. TRFIL.INFO
                                :11. TRFIL.LOD
                                :12. TRFIL.MAKE
                                :13. TRFIL.REL
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Interpreter
                             : 2. FMGR
    External Support Req'd...:
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Implements high level constructs in FMGR transfiles.  Basically an
interpreter to convert IF.THEN.ELSE, GOTO, and ASSIGNMENT operations into
FMGR command syntax.
```

TUTOR M255

INTERACTIVE TUTORIAL GENERATOR

```
Contribution Name...........:  TUTOR
   Title....................: Interactive tutorial generator
   File Names...............:00. Rename Transfer File
                            :01. tutor.sbmt
                            :02. BUILDTUTOR.DBG
                            :03. BUILDTUTOR.FTN
                            :04. BUILDTUTOR.LOD
                            :05. BUILDTUTOR.OLD
                            :06. BUILDTUTOR.REL
                            :07. INCLUDE_TEST.TTR
                            :08. INCLUDE_TEST.TTRI
                            :09. MAKETEST.FTN
                            :10. PROMPT_TEST.TTR
                            :11. TEST.TTR
                            :12. TUTOR.FTN
                            :13. TUTOR.HLP
                            :14. TUTOR.LOD
                            :15. TUTOR.MAKE
                            :16. TUTOR.OLD
                            :17. TUTOR.REL
                            :18. TUTOR_REMOTE.LOD
                            :19. UPSHIFT.MAC
                            :20. UPSHIFT.OLD
                            :21. UPSHIFT.REL
                            :22. VIDEO.FTN
                            :23. VIDEO.OLD
                            :24. VIDEO.REL
                            :25. WINDOW2_TEST.TTR
                            :26. WINDOW_TEST.TTR
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Interactive
                             : 2. Demo
    External Support Req'd...:
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
This program interprets a command file for an interactive tutorial session.
Think of it as an interpretive teaching language.  Includes the program
BUILDTUTOR that formats the screens that are displayed during the session.
Can be used for any subject, not just computer literacy. See HPCA2 for an
example. Needs $MACLB to load.
```

UCOPY M256

COPY FILE BASED ON MASK

```
Contribution Name...........:  UCOPY
   Title....................: Copy file based on mask
   File Names...............:00. Rename Transfer File
                            :01. ucopy.sbmt
                            :02. UCOPY.DBG
                            :03. UCOPY.FTN
                            :04. UCOPY.FTNI
                            :05. UCOPY.LOD
                            :06. UCOPY.MAKE
                            :07. UCOPY.REL
    Operating System(s).....:
    Language(s).............:
    Keywords................: 1. Copy
                             : 2. Filter
                             : 3. CI
    External Support Req'd...:
    If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
This program examines the files described by a source mask and a destination
```

mask. If the time stamp of the source file is newer than that of the destination file, the copy is done. This program is especially useful in a DS/1000 network.
Requires HPCRT.LIB (rev. 5.0) to load properly.

VCOM

M257

VISUAL SOURCE COMPARE

```
Contribution Name...........:  VCOM
   Title....................: Visual source compare
   File Names..............:00. Rename Transfer File
                           :01. vcom.sbmt
                           :02. TEST1
                           :03. TEST2
                           :04. VCOM.DBG
                           :05. VCOM.DOC
                           :06. VCOM.FTN
                           :07. VCOM.LOD
                           :08. VCOM.MAKE
                           :09. VCOM.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Compare
                           : 2. Files
                           : 3. Interactive
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Visual source compare program.  Displays two source files side by side with
differences highlighted in inverse video. Nice for quickly comparing files
in context. Program contains help screens.
```

WAKEUP

M258

TERMINAL ACTIVITY MONITOR

```
Contribution Name...........:  WAKEUP
   Title....................: Terminal activity monitor
   File Names..............:00. Rename Transfer File
                           :01. wakeup.sbmt
                           :02. FLASH.FTN
                           :03. FLASH.OLDF
                           :04. FLASH.REL
                           :05. TO.MAC
                           :06. TO.REL
                           :07. WAKEUP.FTN
                           :08. WAKEUP.LOD
                           :09. WAKEUP.MAKE
                           :10. WAKEUP.REL
                           :11. WAKEUPPROC.FTN
                           :12. WAKEUPPROC.REL
   Operating System(s).....:
   Language(s).............:
   Keywords................: 1. Terminal
                           : 2. System
                           : 3. CI
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
This beeps the terminal if no activity within a certain amount of time.
It keeps beeping at 7 second intervals until the name of one of the 50
states in the United States is entered. Cheaper than an overseer with
a whip and less painful too!
Program is for RTE-6 only.
```

WHERE

M259

WHERE IS EVERYONE

```
Contribution Name...........:  WHERE
   Title....................: Where is everyone
   File Names..............:00. Rename Transfer File
                           :01. where.sbmt
                           :02. CHSUB.MAC
                           :03. CHSUB.REL
                           :04. CK.FTN
                           :05. CK.LOD
                           :06. CK.REL
                           :07. CLR.FTN
                           :08. CLR.LOD
                           :09. CLR.REL
                           :10. LOGFIL
                           :11. SAMPLE.CMD
                           :12. WHERE.FTN
                           :13. WHERE.LOD
                           :14. WHERE.MAKE
                           :15. WHERE.REL
   Operating System(s).....: RTE-6
   Language(s).............:
```

```
   Keywords.................: 1. Data base
                            : 2. Office
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
A computerized "I'll be back at 3 P.M." type of program.  Keeps track of
who is in the office, who is out, and where everybody is.
Program is for RTE-6 only.
```

M260

WHOS6

TYPE 6 FILE OWNERSHIP

```
Contribution Name...........:  WHOS6
   Title....................: Type 6 file ownership
   File Names...............:00. Rename Transfer File
                           :01. whos6.sbmt
                           :02. RPOK.MAC
                           :03. RPOK.REL
                           :04. WHOS6.DOC
                           :05. WHOS6.FTN
                           :06. WHOS6.LOD
                           :07. WHOS6.MAKE
                           :08. WHOS6.REL
   Operating System(s)......: RTE-6
   Language(s)..............:
   Keywords.................: 1. Management
                           : 2. Maintenance
                           : 3. System_tables
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Used to examine type 6 files to see who owns them.  It is especially useful
when preparing to do a SYSGEN to contact the owners of programs, perhaps even
more useful after the switch when some of the programs are found to be no
longer executable! RU,WHOS6 for help.
This program is for RTE-6 systems.
```

M261

ZAPDB

REMOVE DEBUG AND LINDX RECORDS

```
Contribution Name...........:  ZAPDB
   Title....................: Remove DEBUG and LINDX records
   File Names...............:00. Rename Transfer File
                           :01. zapdb.sbmt
                           :02. ZAPDB.FTN
                           :03. ZAPDB.LOD
                           :04. ZAPDB.MAKE
                           :05. ZAPDB.REL
   Operating System(s)......:
   Language(s)..............:
   Keywords.................: 1. Debug
                           : 2. Relocatable
   External Support Req'd...:
   If Re-submission, Reason.:
Contributor's Name..........:  Unknown
              Company.......:  Hewlett-Packard
              Street........:  Data Systems Division
              City..........:  Sunnyvale
              State.........:  California
              Country.......:  USA
              Zip Code......:  94586
              Phone Number..:
              Telex.........:
Contribution Abstract.......:
Does an in-place removal of DEBUG and LINDX records from a relocatable file.
RU,ZAPDB gives help.
```