

CSL/1000



CONTRIBUTION LIBRARY
OF USER-CONTRIBUTED SOFTWARE
FOR HP1000 SYSTEMS

=====
RELEASE TAPE 2730
=====

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INTEREX
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The last change itemized reflects the software currently documented.

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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.

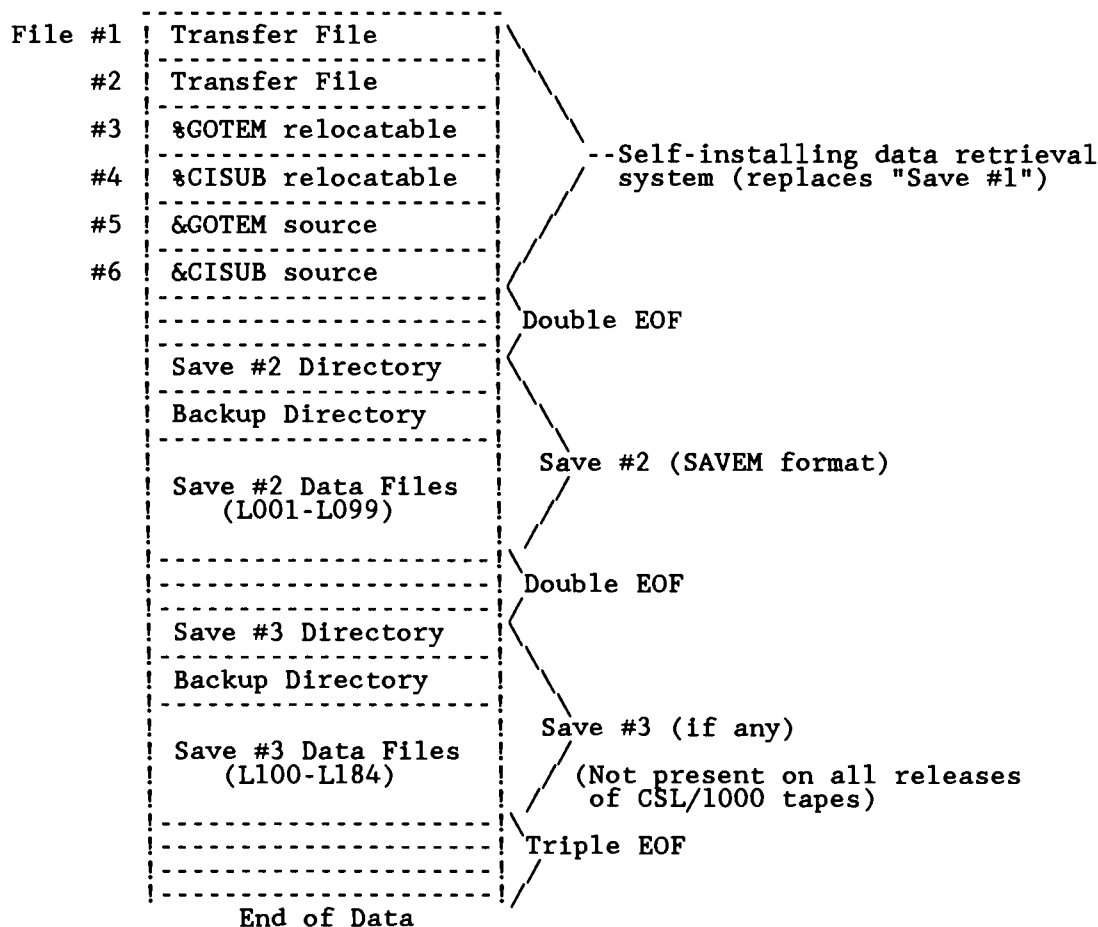
These responsibilities for the CSL/1000 library lie with Interex.

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 described 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).

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:

'ANNMM' 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 ('L' for release 2730).
'NNN' is the serial number within the release.
MM is the number of the file within the contribution.

The file 'ANN00' 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,ANN00,<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,ANN00,<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 'ANN01' is always the standard submission file that describes the contribution in detail.

Example: The CSL/1000 release L 35th contribution with 6 files is named:
L03500 ,L03501, L03502, L03503, L03504, L03505
(where L03500 is the 'Rename Transfer File' and L03501 is the 'Submission File')

DATA-RETRIEVAL INSTRUCTIONS

Standard 1/2" Computer Tape (SAVEM format)

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

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

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

The data-retrieval system will retrieve 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): 1987:202:18: 0
Header: CSL/1000 REV 2730 (L001-L099)
```

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: L019--

Save# 2
 Save date (Y:D:H:M): 1987:202:18: 0
 Header: GSL/1000 REV 2730 (L001-L099)
 Name Scode Cart Type Size
 L01900: 0: -61: 4: 2
 L01901: 0: -61: 4: 18
 L01902: 0: -61: 4: 82
 3 files found matching L019--

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: L019--
 ...(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
 L01900: 0: -61: 4: 1
 L01901: 0: -61: 4: 9
 L01902: 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	L01900:	AW:	SC:	4:	1
Writing	L01900:	AW:	SC:	4:	1
Searching					
Creating	L01901:	AW:	SC:	4:	9
Writing	L01901:	AW:	SC:	4:	9
Searching					
Creating	L01902:	AW:	SC:	4:	41
Writing	L01902:	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(L019-- ,L057--} ;:RT        (copy to cart/dir RT)
TF: EX                                (terminate)
```

Contributions L019 and L057 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 'ANNNOO', 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 ('ANNNO1' 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,ANNNOO,<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 'ANNNOO' 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,ANNNOO,<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 'ANNNOO' 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 (2533, 2625, 2730, etc) _____

Contribution No. (L034, 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 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 INTEREX, please contact:

INTEREX
680 Almanor Avenue
Sunnyvale, California 94086-3513
U.S.A.
(408) 738-4848

List of Current Keywords

9825	DATE	INTEL	PROCEDURES
ABSOLUTE	DEBUG	INTERACTIVE	PROM
ACCOUNTING	DEC	INTERFACE	PURGE
ACCOUNTS	DECIMAL	INTERPRETER	RANDOM
AI	DECODE	INTERRUPT	REGRESSION
ALGEBRA	DEMO	INVERSE	RELOCATABLE
ALGOL	DIAGNOSTIC	LABEL	REPORTS
ANALOG/DIGITAL	DIGITIZER	LANGUAGE	RESOURCE_NUMBER
ANALYZER	DIRECTORY	LAS	RJE
APPLE	DISC	LASERJET	SAVE/RESTORE
ARCHIVE	DISPLAY	LIBRARY	SCANNER
ARRAY	DMA	LINEAR_EQNS	SCHEDULING
ASCII	DOCUMENTATION	LINK	SCRATCH
ASSEMBLER	DRIVER	LIST	SEARCH
ASYNCHRONOUS	DS	LOADER	SECURITY
ATS	DUMP	LOGON/LOGOFF	SEGMENTATION
BACI	EBCDIC	MACRO	SESSION
BACKUP	EDITOR	MAGNETIC_TAPE	SHELL
BAR_CODE	EMA/VMA	MAIL	SIMULATOR
BASIC	EMULATOR	MAINTENANCE	SNAP
BATCH	ENCRYPTION	MANAGEMENT	SOFTKEYS
BCD	ENGINEERING	MAP	SORT
BENCHMARK	ENTRY_POINTS	MATHEMATICS	SPEECH
BINARY	EQT	MATRIX	SPELLING
BIT	ERROR	MEASUREMENT	SPL
BOOT-UP	EXPERT_SYSTEMS	MEMORY	SPOOLING
BYTE	EXTENTS	MENU	SPREAD_SHEET
C	FAIRCHILD	MERGE	STACK
CALCOMP	FIGURES	MESSAGE	STATISTICS
CALCULATOR	FILE-TRANSFER	MICROCODE	STATUS
CALENDAR	FILES	MISCELLANEOUS	STORAGE
CAMAC	FILTER	MODEM	STRINGS
CARTRIDGE	FINANCE	MODIFY	SYSTEM
CASSETTE	FLOATING_POINT	MONITOR	SYSTEM_TABLES
CDC	FLOWCHART	MOTOROLA	TABLET
CDS	FMGR	MOVE	TEKTRONIX
CENTRONICS	FONT	MULTI-PROGRAM	TERMINAL
CHARACTER	FORMATTING	MULTI-TERMINAL	TEST
CHEMISTRY	FORMS	MULTIPLEXOR	TEXT
CI	FORTRAN	NETWORK	TIME
CLASS_NUMBER	FOURIER	PACK	TOOLS
CODE	GAMES	PAPER_TAPE	TOUCH
COMMAND_FILES	GENERATION	PARSE	TRANSFORM
COMMON	GEODESY	PARTITION	TRANSLATOR
COMPARE	GEOMETRY	PASCAL	TRANSPORTABLE
COMPILER	GLOBALS	PATH	TRIGONOMETRY
COMPLEX	GRAPHICS	PAYROLL	UNIX
CONFIGURE	HELP	PC	UPDATE
CONVERSION	HPIB	PERFORMANCE	VAX
COPY	I/O	PHYSICS	WCS
CROSS-REFERENCE	IBM	PLOTTING	WINDOWS
CS80	ID_SEGMENTS	PLUS/1000	WORD
DATA_ACQUISITION	IMAGE	POLYNOMIAL	WORD_PROCESSING
DATA_ANALYSIS	IMAGE_PROCESSING	PRE-PROCESSOR	X.25
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DATA_COMM	INPUT	PRINTER	
DATA_MGMT	INTEGER	PRIVILEGED	

SECTION II

CSL/1000 Release 2730

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.

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 BEAR COMPUTE ENDPOINT FROM BEARING AND DISTANCE * 2730 L020 GEODESY, GEOMETRY, TRIGONOMETRY

 UNIX
 SORT UNIX-STYLE SORT-MERGE PACKAGE FOR RTE-A IN FORTRAN 77 * 2730 L056 SORT, MERGE, UNIX

 WORD_PROCESSING
 FONTEdit LOAD AND EDIT LASERJET+ SOFT FONTS * 2730 L058 WORD_PROCESSING, LASERJET
 SPELR SPELLING CHECKER 2730 L059 WORD_PROCESSING
 TYPER REV. 7.24 TYPER- WORD PROCESSING PROGRAM * 2730 L057 WORD_PROCESSING

SECTION IV

CSL/1000 Release 2730

CONTRIBUTION ABSTRACTS

SUMMARY OF FILE STATISTICS FOR AN LU

Contribution Name.....: ADL
 Title.....: SUMMARY OF FILE STATISTICS FOR AN LU
 File Names.....: 00. Rename Transfer File
 : 01. ADL.SBMT
 : 02. ADL.FTN
 : 03. ADL.REL
 : 04. ADL.LOD
 : 05. GET NEXT FILE.FTN
 : 06. GET NEXT FILE.REL
 : 07. GET SPEC CHARACT.FTN
 : 08. CHAR_LIB_NOCDS.FTN
 : 09. CHAR_LIB_NOCDS.REL
 Operating System(s).....: RTE-A
 Language(s).....: FTN7X
 Keywords.....: 1. CI
 : 2. Data_mgmt
 External Support Req'd...:
 If Re-submission, Reason.:
 Contributor's Name.....: Ann McCormick
 Company.....: Intelsat
 Street.....: 2250 E. Imperial Hwy., Suite 750
 City.....: El Segundo
 State.....: CA
 Country.....: USA
 Zip Code.....: 90245
 Phone Number...: (213) 416-9102
 Telex.....:
 Program Abstract.....:
 As a system manager, I have found no equivalent to the RTE-6 'ODL'
 for the efficient management of the volumes on RTE-A. Although it
 is possible to see how much total space is used on an LU (via FREES)
 you cannot tell how much space is used by each global directory. To
 supply my information gap in this and other areas I wrote 'ADL'.
 A sample run would be as follows:

CI> RU ADL 25
 adl: TOTAL GLOBAL DIRECTORIES FOUND IS 13
 adl: FILE 1625 /WILLIAMS/ORCAM/&ORCAM:::4:285:36

LU/SC/Addr	Global Directory	Total Files	Max Size	Total Blocks	% of Total Blocks
25/27/02	CMSAT_PROGS	25	82	663	3% of 216480
	DEBUG-	10	936	2231	1.0% of 216480
	GRAPHICSV2	219	620	15816	7.3% of 216480
	HELP	74	54	732	.3% of 216480
	HPRC	4	24	80	.0% of 216480
	ITSP	42	349	3611	1.7% of 216480
	LIBRARIES	129	2184	23287	11.7% of 216480
	LISTR	131	126	1672	.8% of 216480
	RTE-A	418	2184	24428	11.8% of 216480
	TDHS-MAIN	1274	900	52986	24.4% of 216480
	USER	486	2304	19908	9.2% of 216480
	VOFLUS	70	861	3928	1.8% of 216480
	WILLIAMS	1649	4608	48817	23.0% of 216480

In the above example one can quickly see that TDHS MAIN and WILLIAMS are the major users of the space on LU 25. One can also see that if the LIBRARIES directory needs to be moved elsewhere, it will need at least 23287 blocks free on the destination LU.

Because the algorithm used (see source code) involves using a masked search for all files on the LU, this is not a fast program. It can process the data at about 6 files per second on a quiet system.

Additional Documentation.....: See program code.

SHORT SPOOL STATUS DISPLAY

Contribution Name.....: SPST
 Title.....: Short spool status display
 File Names.....: 00 RENAME TRANSFER FILE
 : 01 SPST.SBMT
 : 02 SPST.FTN
 : 03 SPST.LOD
 : 04 MOVEW.MAC
 : 05 CGET.MAC
 Operating System(s).....: RTE-A
 Language(s).....: FTN7X,MACRO
 Keywords.....: 1. SPOOLING
 : 2. STATUS
 External Support Req'd...:
 If Re-submission, Reason.:
 Contributor's Name.....: Ann McCormick, contributor
 Jim Williams, author
 Company.....: Intelsat
 Street.....: 2250 E. Imperial Hwy., Suite 750
 City.....: El Segundo
 State.....: CA
 Country.....: USA
 Zip Code.....: 90245
 Phone Number...: (213) 416-9102
 Telex.....:

Contribution Abstract.....:
 This program accesses the internal spool status table to give a shortened version of the "SP ST" command. A sample output would be:

11:03 AM WED., 20 AUG., 1986

printer 5 sequence number	file number	terminal lu	owner	total lines	status
1	58	32	USER	72	outputting to device
	59	41	TDHSL0G	200	actively inspooling

printer 6 sequence number	file number	terminal lu	owner	total lines	status
	56	34	TOM	300	actively inspooling
	60	43	TDHSLOG	0	actively inspooling

Additional Documentation....: See program code.

SP_LIB

PROGRAMMATIC SPOOLING LIBRARY

L003

Contribution Name.....: SP_LIB
Title.....: Programmatic spooling library
File Names.....: 00 RENAME_TRANSFER_FILE
:01 SPLIB.SBMT
:02 SPLIB.CMD
:03 SPLIB.LIS --merge command file
:04 SPLIB.FTN --subroutines called by INC files
:05 MBGET.MAC
:06 WFILL.MAC
:07 SPOOL_DECLARATIO.INC --variable declaration
:08 SPOOL_START_UP.INC --starts spooling
:09 SPOOL_STOP.INC --stops spooling
:10 SPOOL_AUTO_PURGE.INC --stops spooling but
purges any empty file
:11 SPOOL_PURGE.INC --unconditional spool purge
Operating System(s).....: RTE-A
Language(s).....: FTN7X,MACRO
Keywords.....: 1. SPOOLING
External Support Req'd...:
If Re-submission, Reason...:
Contributor's Name.....: Ann McCormick, submittor
Jim Williams, author
Company.....: Intelsat
Street.....: 2250 E. Imperial Hwy., Suite 750
City.....: El Segundo
State.....: CA
Country.....: USA
Zip Code.....: 90245
Phone Number.....: (213) 416-9102
Telex.....:

Contribution Abstract.....:
We have developed a library of spooling routines. There is a
subroutine call to start spooling and one to stop it. For both, pass
a logical value to the routine which will be used to return a flag
signifying if there was an error. The error number and the actual spool
file name will be returned to the caller. The spool file name is useful
if the user wishes to inquire about the status of the spool operation.
These routines will add 188 words to your program plus code in your
main program. The breakdown is as follows:

Spool_Start_File	103 words
Spool_Stop_File	37 words
WFILL	48 words (utility called by Spool_Start)

There is also a spool status routine which will return the spool status and
the number of lines in the spool file still to be output. The status
value is important if the user is interested in knowing if his spool
is being output at the time he asks or if it is waiting on another user
in the system, or if the printer is down. The number of lines will
show how long the file is at any time during the spool operation.

Additional Documentation....: See comments in the include files.

BKUP

NIGHTLY PROGRAMMATIC BACKUP OF DISC FILES

L004

Contribution Name.....: BKUP
Title.....: Nightly programmatic backup of disc files
File Names.....: 00. Rename Transfer File (Interex-supplied)
:01. BKUP.SBMT
:02. BKUP.FTN
:03. BKUP1.CMD
:04. BKUP2.CMD
:05. BKUP3.CMD
Operating System(s).....: RTE-A
Language(s).....: FTN77
Keywords.....: 1. BACKUP
External Support Req'd...:
If Re-submission, Reason...:
Contributor's Name.....: ANTHONY W. BROWN
Company.....: BOBIER TOOL SUPPLY, INC.
Street.....: G-4163 CORUNNA ROAD
City.....: FLINT
State.....: MI
Country.....: USA
Zip Code.....: 48504
Phone Number.....: (313) 732-4030
Telex.....:

Contribution Abstract.....:
This program should be added to the welcome file so that each time
the system is re-booted it is run. The program schedules
itself to run at 8:30 PM each night. Depending upon which night of the
week it is, determines which BKUP.CMD file is used by TF. The command
files sbmt'd do a partial full backup of the global directories on my
system on Monday, Finish bkup'g globals on Tuesday, then the rest
of the week it uses BKUP3.CMD which does an incremental bkup. Upon
completion of TF the program reschedules itself to run again at
8:30 PM. More specifics can be found in source code. Good luck!

Additional Documentation....:

RTE-6/VM SUBROUTINE LIBRARY

```

Contribution Name.....: LIB6
Title.....: Rte-6/Vm Subroutine Library
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. !Lib6.Sbmt
                  02. Lib6.Cmd
                  03. Lib6.Cmpb
                  04. Lib6.Cmpl
                  05. Lib6.Doc
                  06. Lib6.Mrg
                  07. AbortIo.Mac
                  08. Clgof.Ftn
                  09. CloseSpool.Ftn
                  10. GetIdAdr.Mac
                  11. GetIdNum.Mac
                  12. GetLogonString.Ftn
                  13. GetMyIdNum.Mac
                  14. GetProgramName.Ftn
                  15. IdPlotter.Ftn
                  16. ModifySst.Mac
                  17. OpenSpool.Ftn
                  18. Priv.Mac
                  19. ReadAccts.Ftn
                  20. TimedOut.Ftn
                  21. TimeList.Mac
                  22. Tstat.Ftn
Operating System(s).....: Rte-6/Vm ONLY.
Language(s).....: Ftn7x, Macro
Keywords.....: 1. Library
                6. SPOOLING
                7. SYSTEM
External Support Req'd...: LibC
If Re-submission, Reason.:
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.....:
This package contains a number of routines used by our application
programs on the Rte-6/Vm Operating System in conjunction with LibC,
a separate contribution. A third contribution, LibA, is the counter-
part of this library providing call-compatible routines for the
Rte-A Operating System only.

These routines have been in use without problems for quite some time
now with the exception of AbortIo and IdPlotter. AbortIo works with-
out error, but can only abort Class I/O requests since Rte-6 does
not have the command CN,LU,AB like Rte-A. The routine IdPlotter is
supposed to identify an Hp Plotter to allow our graphics programs
to setup the proper App WorkStation Program, but it fails in some
cases and/or performs inconsistently. When these problems have been
solved, these routines will be re-submitted.

Additional Documentation....: See source code.

```

RTE-A SUBROUTINE LIBRARY

```

Contribution Name.....: LIBA
Title.....: Rte-A Subroutine Library
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. !LibA.Sbmt
                  02. LibA.Doc
                  03. LibA.Mrg
                  04. LibA.Cds.Cmd
                  05. LibA.Cds.Cmpb
                  06. LibA.Cds.Cmpl
                  07. LibA.Std.Cmd
                  08. LibA.Std.Cmpb
                  09. LibA.Std.Cmpl
                  10. Cds.Ftni
                  11. Cds Off.Ftni
                  12. Cds-On.Ftni
                  13. AboFtIo.Mac
                  14. CloseSpool.Ftn
                  15. GetIdAdr.Mac
                  16. GetIdNum.Mac
                  17. GetLogonString.Mac
                  18. GetMyIdNum.Mac
                  19. GetProgramName.Ftn
                  20. IdPlotter.Ftn
                  21. OpenSpool.Ftn
                  22. TimedOut.Ftn
                  23. TimeList.Mac
                  24. Tstat.Ftn
Operating System(s).....: Rte-A ONLY.
Language(s).....: Ftn7x, Macro
Keywords.....: 1. Library
External Support Req'd...: LibC
If Re-submission, Reason.:
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.....:
This package contains a number of routines used by our application
programs on the Rte-A Operating System in conjunction with LibC,
a separate contribution. A third contribution, Lib6, is the counter-

```


part of this library providing call-compatible routines for the Rte-6/Vm Operating System only.

These routines have been in use without problems for quite some time now with the exception of IdPlotter. The routine IdPlotter is supposed to identify an Hp Plotter to allow our graphics programs to setup the proper App WorkStation Program, but it fails in some cases and/or performs inconsistently. When these problems have been solved, this routine will be re-submitted.

Additional Documentation....: See source code.

LIBC

COMMON SUBROUTINE LIBRARY

L007

Contribution Name.....: LIBC
Title.....: Common Subroutine Library
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !LibC.Sbmt
 :02. LibC.Doc
 :03. LibC.Mrg
 :04. LibC.Cds.Cmd
 :05. LibC-Cds.Cmpb
 :06. LibC-Cds.Cmpl
 :07. LibC-Std.Cmd
 :08. LibC-Std.Cmpb
 :09. LibC-Std.Cmpl
 :10. Cds.Ftni
 :11. Cds.Off.Ftni
 :12. Cds-On.Ftni
 :13. AsciiToReal.Mac
 :14. AutoDial.Ftn
 :15. CheckFmpError.Ftn
 :16. CheckImageError.Ftn
 :17. CompareWords.Mac
 :18. CrtCom.Ftni
 :19. Dspst.Ftn
 :20. ExltTest.Ftn
 :21. FmpCom.Ftni
 :22. FormatTime.Ftn
 :23. Formt.Mac
 :24. HelpTest.Ftn
 :25. IdOpsystem.Ftn
 :26. IdTerminal.Ftn
 :27. ImageCom.Ftni
 :28. IntToAscii.Mac
 :29. ListCom.Ftni
 :30. ListLib.Ftn
 :31. LogCom.Ftni
 :32. MsgCom.Ftni
 :33. RealToAscii.Mac
 :34. SkipLines.Ftn
 :35. TimeStamp.Ftn
 :36. TimeToExec11.Ftn
 :37. TruncateFile.Ftn
 :38. WildMatch.Ftn
 :39. WriteCrt.Ftn
 :40. WriteCrtLog.Ftn
 :41. WriteLog.Ftn
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x, Macro
Keywords.....: 1. Library
External Support Req'd...: LibA or Lib6
If Re-submission, Reason:
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.....:
This package contains a number of routines used by our application
programs on the Rte-A and Rte-6/Vm Operating Systems in conjunction
with Lib6 and LibA, separate contributions.
Additional Documentation....: See source code.

ASK

PROMPT AND READ FROM CI COMMAND FILE

L008

Contribution Name.....: ASK
Title.....: Prompt and Read from CI Command File
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !Ask.Sbmt - submission file
 :02. ?Ask - on-line help file
 :03. Ask.Ftn - source
 :04. Ask.Lod - LINK cmd file
 :05. Ask.Rel - reloc
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. CI
 : 2. INTERACTIVE
 : 3. COMMAND_FILES
External Support Req'd...: None
If Re-submission, Reason:
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.....:
This program displays a specified prompt string to the user and

then reads the response. It is intended to be invoked from a CI command file and returns the user's response in the specified CI global \$Return1 thru \$Return5 or \$Return_S.

Copy ?Ask to Ask::Help for on-line help.

Additional Documentation....: See source code.

CALC

L009

CALCULATOR FOR CI COMMAND FILES

Contribution Name.....: CALC
Title.....: Calculator for CI Command Files
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !Calc.Sbmt - submission file
 :02. ?Calc - on-line help file
 :03. Calc.Ftn - source
 :04. Calc.Lod - LINK cmd file
 :05. Calc.Rel - reloc
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. CI
 : 2. Calculator
 : 3. Command_files
External Support Req'd...: None
If Re-submission, Reason.:
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.....:
This program provides the ability to perform calculations from
a CI command file and returns the result in the global \$Return1.
Copy ?Calc to Calc::Help for on-line help.
Additional Documentation....: See source code.

DIAL

L010

AUTO-DIALER UTILITY

Contribution Name.....: DIAL
Title.....: Auto-Dialer Utility
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !Dial.Sbmt - submission file
 :02. Dial.Doc - hardware doc
 :03. Dial.Ftn - source
 :04. Dial.Rel - reloc
 :05. Dial_6.Lod - LOADR cmd file
 :06. Dial_A.Lod - LINK cmd file
 :07. Load_Dial_6.Cmd - CI cmd file for 6/Vm
 :08. Phone#.Dat - sample data file
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. DS
 : 2. Modem
 : 3. RJE
External Support Req'd...: LibC (elsewhere on this CSL tape)
If Re-submission, Reason.:
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.....:
This program provides an interactive user interface to one
or more Automatic Calling Units (ACU's) for the purpose of
dialing a remote computer.
DIAL can be scheduled by the following run-string:
CI> DIAL site [mode]
Where: site = A string of up to 4 characters which
 represents the remote site code.
 (No default).
mode = A string of up to 4 characters which
 specifies the mode of communication as
 follows:
 mode = DS for DS/1000-IV communications.
 mode = MRJE for MRJE/1000 communications.
Note that 'mode' selects a physical modem
and autocal unit and therefore determines
the System Logical Unit_#'s used to make the
call. (Default = MRJE).
When DIAL is used with DS/1000-IV, DIAL must be scheduled before
any DS operations are initiated. A sample runstring might be as
shown below.
CI> DIAL RSN DS
Where: RSN = the 'site code' for the Motor Plant.
DS = means that DS/1000-IV communications will be used.
When DIAL is used with MRJE/1000, the user must first run the

MRJE program and issue a SIGNON command:

```
CI> MRJE
DSN/MRJE. Type "?" for help.
Attempting to read default configuration file.
Configuration file read.
Please wait; download in progress.
Configuration complete.
```

```
MRJE command : SIGNON
Signon initiated.
```

At this point, MRJE has raised DTR to the modem and initiated the signon process. MRJE will wait for 2 minutes for the phone connection to be made before aborting the signon operation. The user should now obtain a system break-mode prompt and run the DIAL program.

```
CM> RU,DIAL,RGO
/DIAL: AUTO-DIALER Rev-3.0 [860716.1625]
/DIAL: Dialing "1234" at site "RGO" for "DS" communications.
/DIAL: Call completed successfully.
/DIAL: Complete.
```

When the dial operation completes, MRJE completes the signon process and then issues a prompt for further MRJE commands.

```
Signon complete.
```

```
MRJE command :
```

The file Phone#.Dat::System contains the remote site and phone number information and therefore must be present. The format of this file is critical; refer to the source code comments for details.

This program is compatible with a UDS-801 Auto Call Unit connected via the 8-Chan Mux; see Dial.Doc for details.

Additional Documentation....: See source code.

LIST

L011

LIST FILE WITH LINE NUMBERS

```
Contribution Name.....: LIST
Title.....: List File with Line Numbers
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. !List.Sbmt - submission file
                  :02. ?List - on-line help file
                  :03. List.Ftn - source
                  :04. List.Lod - LINK cmd file
                  :05. List.Rel - reloc
                  :06. ListCom.FTNI - include file
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. LIST
External Support Req'd...: LibC (elsewhere on this CSL tape)
If Re-submission, Reason.:
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.....:
This program will list a file to the printer (default) or
to the specified output file/lu with page headings and
line numbers.
```

LIST can be scheduled by the following run-string:

```
CI> LIST srsfile output format firstline lastline

srsfile = file to be listed
output = output file/lu (default = 6)
format = A for ascii, B for binary
firstline = first line to list (default = 1)
lastline = last line to list (default = 32767)
```

Copy ?List to List::Help for on-line help.

Additional Documentation....: See source code.

MTLBL

L012

MAG TAPE LABEL GENERATOR

```
Contribution Name.....: MTLBL
Title.....: Mag Tape Label Generator
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. !Mtlbl.Sbmt - submission file
                  :02. ?Mtlbl - on-line help file
                  :03. Mtlbl.Ftn - source
                  :04. Mtlbl.Lod - LINK cmd file
                  :05. Mtlbl.Rel - reloc
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. MAGNETIC_TAPE
                  : 2. LABEL
External Support Req'd...: LibC (elsewhere on this CSL tape)
If Re-submission, Reason.:
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.....:
This program generates and prints self-adhesive labels
for Mag Tape reels.

MTLBL can be scheduled by the following run-string:

CI> MTLBL output

output = output lu (default = 1)

Copy ?Mtlbl to Mtlbl::Help for on-line help.

This program is compatible with the Hp 2608 line printer
and 1-3/4" x 4" self-adhesive labels on a 1-wide carrier.

Additional Documentation....: See source code.

NSORT

L013

GENERAL PURPOSE MULTI-KEY SORT

Contribution Name.....: NSORT
Title.....: General Purpose Multi-Key Sort
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !Nsort.Sbmt - submission file
 :02. ?Nsort - on-line help file
 :03. Nsort.Ftn - source
 :04. Nsort.Lod - LINK cmd file
 :05. Nsort.Rel - reloc
Operating System(s).....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. SORT
External Support Req'd...: LibC (elsewhere on this CSL tape)
If Re-submission, Reason.:
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.....:
This program provides a generalized multi-key sort of any
disc file.

NSORT can be scheduled by the following run-string:

CI> NSORT options infile outfile keylist

options = A (ascending, default), D (descending),
 P (programatic schedule), Q (quiet mode),
 T (debug trace)
infile = file to be sorted
outfile = sorted result
keylist = a series of number pairs which define the
 starting column and length of each key

Nsort was modeled after the original Csl contribution MSORT.
The changes include compatibility with the CI file system
and a faster in-memory sort (same technique as CI's DL cmd).

Copy ?Nsort to Nsort::Help for on-line help.

Additional Documentation....: See source code.

SPOLA

L014

PROGRAMATIC SPOOLER

Contribution Name.....: SPOLA
Title.....: Programatic Spooler
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. !Spola.Sbmt - submission file
 :02. Spola.Ftn - source
 :03. Spola.Lod - LINK cmd file
 :04. Spola.Rel - reloc
 :05. D'Rvt.Mac - sys com source
 :06. D'Rvt.Rel - sys com reloc
Operating System(s).....: Rte-X ONLY
Language(s).....: Ftn7x, Macro
Keywords.....: 1. SPOOLING
External Support Req'd...: LibC (elsewhere on this CSL tape)
If Re-submission, Reason.:
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.....:
This program handles outspooling of temporary list files
of an application program. SPOLA is needed ONLY when a single
program wants to spool more than one output to the same
physical output lu.

SPOLA is started at bootup time from the Welcome file and
remains dormant saving resources or class get suspended
when not in use.

The application program must open and close spooling using

the routines OpenSpool and CloseSpool from the library LibA. SPOLA is not used on an Rte-6/Vm system, but the OpenSpool and CloseSpool routines from Lib6 will provide the same capabilities under Rte-6/Vm. Also, the program must be linked with the LC option on Rte-A.

The table D_RVT must be generated into the System in Labeled System Common (just before System Messages). The version supplied contains 6 words, but SPOLA only uses the first word to hold a class number for communications from the CloseSpool routine.

```
Usage: Integer*2 SpoolCntl1(37), SpoolCntl2(37)
      Ierr = OpenSpool(7,'6',SpoolCntl1) ! for write to lu-7
                                           ! and output to lu-6.
      Ierr = OpenSpool(8,'6',SpoolCntl2) ! for write to lu-8
                                           ! and output to lu-6.
      Write(7,1000) some, data
      Write(8,2000) other, data
      Call CloseSpool(0,SpoolCntl1,Ierr)
      Call CloseSpool(0,SpoolCntl2,Ierr)
```

Additional Documentation....: See source code.

TIME

RTE TIME SET & MONITOR

L015

```
Contribution Name.....: TIME
Title.....: RTE Time Set & Monitor
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. ?Time.Sbmt - submission file
                  02. ?Time - on-line help file
                  03. Time.Ftn - source
                  04. Time.Lod - LINK cmd file
                  05. Time.Rel - reloc
                  06. Timer.Ftn - monitor source
                  07. Timer.Lod - LINK cmd file
                  08. Timer.Rel - monitor reloc
Operating System(s)....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x
Keywords.....: 1. BOOT-UP
                2. DATE
                3. TIME
External Support Req'd...: LibC and (LibA or Lib6)
If Re-submission, Reason.: Converted to Ftn7x, Rte-A compatibility,
                             and CI file system. Original submission
                             was 1026-- of Csl Rev-2433.
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.....:
The TIME program is run at boot-up time from the Welcome file.
It displays the most recent known system time/date in CI's TM
command format and then allows the user to edit the displayed
time and date using a "/" much like an EDIT/1000 line edit.
The edited time/date is then used to set Rte's clock and is
also stored in the file $TIMES.DAT::SYSTEM which functions as
a push-down stack.

The TIME program may also be executed at any time to report
the contents of the $TIMES.DAT file which reports a history
of boot-up, system up, and system down times.

The TIMER program is time-scheduled by TIME and runs as a
system program every 5 minutes (default). Each time it runs,
it updates the top record in the $TIMES.DAT file with the
current date and time, but the boot-up time is unchanged.

The first time TIME is executed, it will create the file
$TIMES.DAT::SYSTEM. The /System directory is normally
protected as rw/r, so the first run should be as follows:

      CI> prot /system rw/rw
      CI> time se
      CI> prot /system rw/r

Copy ?Time to Time::Help for on-line help.
Additional Documentation....: See source code.
```

WHO

SESSION ACTIVITY REPORT UTILITY

L016

```
Contribution Name.....: WHO
Title.....: Session Activity Report Utility
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. !Who.Sbmt - submission file
                  02. ?Where.Dat - sample data file
                  03. ?Who - sample data file
                  04. ?Who.Dat - on-line help file
                  05. IdSegment.Ftni - Ftn include file
                  06. SessionTable.Ftni - Ftn include file
                  07. Who.Ftn - source
                  08. Who.Lod - LINK cmd file
                  09. Who.Rel - reloc
                  10. WhoCom.Ftni - Ftn include file
                  11. WhoLib6.Mac - Rte-6 lib source
                  12. WhoLib6.Rel - Rte-6 lib reloc
                  13. WhoLibA.Mac - Rte-A lib source
                  14. WhoLibA.Rel - Rte-A lib reloc
Operating System(s)....: Rte-A or Rte-6/Vm
Language(s).....: Ftn7x, Macro
Keywords.....: 1. SESSION
```

```

                : 2. REPORTS
External Support Req'd...: LibC and (LibA or Lib6)
If Re-submission, Reason.: Rte-A compatibility, CI file system,
                           and display like Rte-A's WH program.
                           Original submission was H088-- of
                           Csl Rev-2340.
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.....:
This program will display on the user's terminal or the specified
device, the currently active sessions and the program activity
of each session. Several options are available which tailor the
information displayed.

The information displayed includes the terminal lu#, the logon
string of the person logged on the terminal, the person's real
name (from the ?Who.Dat::System file), the physical location of
the terminal and the number of the nearest telephone (from the
?Where.Dat::System file).

On Rte-6, the WHZAT program reports the state of a program as a
number such as 6 for Operator Suspended. On Rte-A the WH program
is better in that a meaningful text description is used. This
version of WHO was modeled after Rte-A's WH program, runs on
both systems and uses the meaningful text approach.

Copy ?Who to Who::Help for on-line help.

Edit ?Who.Dat and ?Where.Dat to be appropriate for your
installation and copy them to the /System directory.

Additional Documentation....: See source code.

```

DSASMB

L017

DIS-ASSEMBLER PRODUCES MACRO-ACCEPTABLE FILES

```

Contribution Name.....: DSASMB
Title.....: Dis-assembler produces MACRO-acceptable files
File Names.....:00. Rename Transfer File
                  :01. DSASMB.SBMT
                  :02. DSASMB.FTN          main
                  :03. DSASMB.COM          include file
                  :04. DSABLK.FTN        block data
                  :05. DSASL1.FTN        1st library
                  :06. DSASL2.FTN        2nd library
                  :07. DSASL3.FTN        3rd library
                  :08. DSASMB.LOD        LINK command file
                  :09. DSASMB.CMD        compiling and loading
Operating System(s)....: RTE-6/VM, RTE-A etc.
Language(s).....: FTN77
Keywords.....: Inverse
                  : Assembler
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Bill Fock
Company.....: CSIRO
                  : Div. Materials Science & Technology
Street.....: Locked bag 33
City.....: CLAYTON
State.....: Victoria
Country.....: AUSTRALIA
Zip Code.....: 3168
Phone Number...:
Telex.....:
Contribution Abstract.....: DSASMB dis-assembles extended relocatable
                           files made by MACRO and FTN7X in a format
                           acceptable to MACRO.
Additional Documentation....: In source file DSASMB.FTN.

```

KPKEY

L018

KEEP SOFT KEY IN BUFFER

```

Contribution Name.....: KPKEY
Title.....: Keep soft key in buffer
File Names.....:00. Rename transfer file
                  :01. KPKEY.SBMT      submit file
                  :02. KPKEY.FTN      source file
                  :03. KPKEY.REL      relocatable file
Operating System(s)....: RTE-A/6-VM
Language(s).....: FTN7X
Keywords.....: 1. Softkeys
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Bill Hassell
Company.....: Hewlett-Packard
Street.....:
City.....:
State.....:
Country.....:
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This is a simple program to use as a 'front-end' to any other program.
It takes the runstring and passes it to RTE as if the user typed
in RU,<runstring>. Just before passing the string to RTE, it
saves the softkeys in an array. When the son program(s) are done
KPKEY then restores the softkeys and passes the returned params
back to the father of KPKEY. Thus, KPKEY becomes a universal
softkey-saver that requires no programming changes...just use
KPKEY to schedule the user programs.

```

```

Contribution Name.....: FORMGEN
Title.....: Block-mode form generator
File Names.....: 00. Rename Transfer File
                  01. FORMGEN.SBMT - Submission file
                  02. FORMGEN.FTN - FORM generation program
                  03. SOFTINV.FTN - A sample FORM I/O program
                  04. BLOCK.FTN - Library of subroutines
                  05. FORMGEN.CMD - Compile and link commands
                  06. FORMGEN.LOD - FORMGEN link command file
                  07. SOFTINV.LOD - SOFTINV link command file
                  08. README.DOC - Documentation
                  09. SOFTWARE.FORM - Example FORM
                  10. SOFTWARE.INV - Inventory file for SOFTINV
                  11. FORMGEN.REL - Relocatable FORMGEN
                  12. SOFTINV.REL - Relocatable SOFTINV
                  13. BLOCK.LIB - Indexed BLOCK library
Operating System(s).....: RTE-6/VM (DSD 4.0), RTE-A (DSD 4.0)
Language(s).....: FORTRAN 7
Keywords.....: 1. FORMS
                2. TERMINAL
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: C. Mark Yendt
Company.....: Computernik Software Services
Street.....: 2253 Governors Rd. Box 141
City.....: Copetown
State.....: Ontario
Country.....: CANADA
Zip Code.....: LOR 1J0
Phone Number.....: (416) 628 4788
Telex.....:
Contribution Abstract.....:
FORMGEN is an interactive program that allows the user to build FORMS
that can be used by other programs. The program builds a blank
form on the screen and then allows the user to enter the appropriate
information. The user indicates the start and stop of the protected
fields by using the ' ' character on the screen. The forms that are
generated are saved to DIRECT access disc files with the .FORM extension.
Both these conditions must be met before the file will be re-read from the
disc to be used by another program. Other programs can use the generated
FORMS by using the utility subroutines in the BLOCK.FTN library.

```

```

Contribution Name.....: BEAR
Title.....: Compute endpoint from bearing and distance
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. BEAR.SBMT - Submission file
                  02. BEAR.FTN
                  03. BEAR.REL
Operating System(s).....:
Language(s).....: FTN7X
Keywords.....: 1. Geodesy
                2. Geometry
                3. Trigonometry
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Carl Winkler
Company.....: NTIA (Dept. of Commerce)
Street.....: 179 Admiral Cochrane Drive
City.....: Annapolis
State.....: MD
Country.....: USA
Zip Code.....: 21401
Phone Number.....: (301)261-8002
Telex.....:
Contribution Abstract.....:
This program computes a path endpoint latitude/longitude when given
a starting point latitude/longitude and a bearing and distance from the
starting point to the endpoint.
Additional Documentation....:

```

```

Contribution Name.....: ACCTS
Title.....: ACCTS-file like description of RTE-A users
File Names.....: 00. Rename Transfer File (Interex-supplied)
                  01. ACCTS.SBMT submission file
                  02. ACCTS.FTN source
                  03. ACCTS.HLP help file (/HELP/ACCTS)
                  04. ACCTS.LOD LINK command file
                  05. ACCTS.CMD installation command file
Operating System(s).....: RTE-A
Language(s).....: FTN7X
Keywords.....: 1. session
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Carlton W. Wilson
Company.....: General Electric, Space Division
Street.....: PO Box 8555
City.....: Phila.
State.....: Pa.
Country.....: USA
Zip Code.....: 19101
Phone Number.....: (215) 354-2928
Telex.....:
Contribution Abstract.....: ACCTS displays the info contained in the

```

APL

L022

APL-LIKE KEYBOARD CALCULATOR

Contribution Name.....: APL
Title.....: APL-like keyboard calculator
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. APL.SBMT (submission file)
 : 02. APL.FTN source
 : 03. APL.HLP help file (/HELP/APL)
 : 04. APL.CMD installation command file
Operating System(s).....: RTE-A, RTE-6
Language(s).....: FTN7X
Keywords.....: 1. calculator
 : 2. interactive
External Support Req'd...
If Re-submission, Reason:
Contributor's Name.....: Carlton W. Wilson
Company.....: General Electric, Space Division
Street.....: PO Box 8555
City.....: Phila.
State.....: Pa.
Country.....: USA
Zip Code.....: 19101
Phone Number.....: (215) 354-2928
Telex.....:
Contribution Abstract.....: APL is an interactive keyboard calculator that
parses from right to left, APL style. All arithmetic is done in double
precision.
Additional Documentation.....: See APL.HLP

DP

L023

DRIVER-PARAMETER DISPLAY/MODIFY PROGRAM

Contribution Name.....: DP
Title.....: Driver-parameter display/modify program
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. DP.SBMT (submission file)
 : 02. DP.FTN source
 : 03. DP.HLP help file (/HELP/DP)
 : 04. DP.CMD installation command file
Operating System(s).....: RTE-A
Language(s).....: FTN7X
Keywords.....: 1. SYSTEM TABLES
 : 2. MODIFY
External Support Req'd...
If Re-submission, Reason:
Contributor's Name.....: Carlton W. Wilson
Company.....: General Electric, Space Division
Street.....: PO Box 8555
City.....: Phila.
State.....: Pa.
Country.....: USA
Zip Code.....: 19101
Phone Number.....: (215) 354-2928
Telex.....:
Contribution Abstract.....: DP displays driver parameters for a specified
LU. DP will also allow you to modify any of the parameters listed.
Additional Documentation.....: See DP.HLP.

TY

L024

DEVICE-TYPE DISPLAY/MODIFY PROGRAM

Contribution Name.....: TY
Title.....: Device-type display/modify program
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. TY.SBMT (submission file)
 : 02. TY.FTN source
 : 03. TY.HLP help file (/HELP/TY)
 : 04. TY.CMD installation command file
 : 05. TY.LIB stub library for RTE-6
Operating System(s).....: RTE-A, RTE-6
Language(s).....: FTN7X
Keywords.....: 1. SYSTEM TABLES
 : 2. MODIFY
External Support Req'd...
If Re-submission, Reason:
Contributor's Name.....: Carlton W. Wilson
Company.....: General Electric, Space Division
Street.....: PO Box 8555
City.....: Phila.
State.....: Pa.
Country.....: USA
Zip Code.....: 19101
Phone Number.....: (215) 354-2928
Telex.....:
Contribution Abstract.....: TY allows you display the device type for
a given LU. It will also allow you to change an LU's type.
Additional Documentation.....: See TY.HLP.

FFILE

L025

FAST FILE-ACCESS SUBROUTINE PACKAGE

Contribution Name.....: FFILE
Title.....: Fast file-access subroutine package
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. 'FFILE - submission file


```

:02. &FFILE - FTN4X source
:03. [FFILE - FTN4X include file
:04. ^FFILE - Relocatable
:05. *FFILE - Documentation
Operating System(s)..... RTE-4B, RTE-6
Language(s)..... FTN4X
Keywords..... 1. FILES
External Support Req'd... Routines from ELIBS
If Re-submission, Reason..
Contributor's Name..... Chris Egan
Company..... Division of Survey & Mapping
Street..... Department of Property & Services
City..... 2 Treasury Place
State..... Melbourne
Country..... Victoria
Zip Code..... Australia
Phone Number..... 3002
Telex.....
Contribution Abstract.....
These subroutines provide fast read, and limited write, access to
all files on the system. They completely bypass HP'S FMP routines, by
accessing the file directories directly. No open flag is created, and there
is no need to have the cartridge mounted to the user. The location of each
file extent is stored in a table, so that the file directory is read once
only - unlike the FMP routines which schedule D.RTR every time a new extent
is needed.
Full, or half, track buffers are used, and the unpacking of variable
length records is handled internally. Records up to 512 words long can be
read. As a file is read, the location of the first record in each extent
is remembered, so that random access of a type 3/4 file can be almost as
fast as for a type 1/2 file.
Writing is limited to changing an existing record by overwriting it
with a new record of the same length - a type 1/2 file may have any record
written, and an 'extend' subroutine will create a new extent, but you have
to manage the extents yourself.
The structure of the tables used means that a program can have only
one file "open" at a time, but there are many occasions where it is useful
to have fast, read-only access to a file. My programs TY, WRITE and MERG
all use these routines.
As an example WRITE takes 12 seconds to find the last record in a
24000 record, type 4 file.
Additional Documentation.... *FFILE

```

FL

L026

FILE DIRECTORY LISTER

```

Contribution Name..... FL
Title..... File directory lister
File Names..... 00. Rename Transfer File (Interex-supplied)
:01. 'FL - Submission file
:02. &FL - FTN4X source
:03. [FL - FTN4X include file
:04. ^FL - relocatable
:05. *FL - loader command file
Operating System(s)..... RTE-4B, RTE-6
Language(s)..... FTN4X
Keywords..... 1. DIRECTORY
: 2. FILES
External Support Req'd... Routines from ELIBS
If Re-submission, Reason..
Contributor's Name..... Chris Egan
Company..... Division of Survey & Mapping
Street..... Department of Property & Services
City..... 2 Treasury Place
State..... Melbourne
Country..... Victoria
Zip Code..... Australia
Phone Number..... 3002
Telex.....
Contribution Abstract.....
This is an enhanced version of the program which has been around
for a long time - last seen on tape 2340.
Bugs have been fixed so that open files, file sizes, and waste blocks
are all reported correctly, and the hard copy options automatically spool
to a printer on LU 6. Some options have changed their codes.
Currently set up for 1023 files (2 directory tracks on 7925) which
does not need a LB load. Change this maximum if required.
Run FL,? for list of options
Additional Documentation....

```

RENUM

L027

RENUMBER A FORTRAN PROGRAM

```

Contribution Name..... RENUM
Title..... Renumber a FORTRAN program
File Names..... 00. Rename Transfer File (Interex-supplied)
:01. 'RENUM - Submission file
:02. &RENUM - FTN4X source
:03. [RENUM - FTN4X include file
:04. ^RENUM - relocatable
:05. *RENUM - loader command file
:06. *RENUM - documentation
Operating System(s)..... RTE-4B, RTE-6, at least
Language(s)..... FTN4X
Keywords..... 1. FORTRAN
External Support Req'd... Routines from ELIBS
If Re-submission, Reason..
Contributor's Name..... Chris Egan
Company..... Division of Survey & Mapping
Street..... Department of Property & Services
City..... 2 Treasury Place
State..... Melbourne

```

```

Country.....: Australia
Zip Code.....: 3002
Phone Number..:
Telex.....:
Contribution Abstract.....:
This program will renumber all the statement numbers in a FORTRAN
program, so that in each subroutine/function the numbers start at 100,
and increment by 100 - these defaults can be changed. All statement
numbers are found, including those in ERR=, END= statements, and those
in alternate returns.
It has been used with FTN4, and FTN4X, programs, and should work
with FTN7X. There are a few, very minor, limitations noted in "RENUM.
The new file normally replaces the original file, but can be given
a new name if required.
Run RENUM for instructions.
Additional Documentation....: "RENUM

```

SALVG

L028

DISK EDITOR

```

Contribution Name.....: SALVG
Title.....: Disk editor
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. 'SALVG - Submission file
:02. &SALVG - FTN4X source
:03. [SALVG - FTN4X include file
:04. %SALVG - relocatable
:05. *SALVG - loader command file
:06. "SALVG - documentation file
:07. ?SALVG - help file
Operating System(s).....: RTE-4B, RTE-6
Language(s).....: FTN4X
Keywords.....: 1. EDITOR
: 2. SYSTEM
: 3. DISC
: 4. DIRECTORY
: 5. FILES
External Support Req'd...: Routines from ELIBS
If Re-submission, Reason.:
Contributor's Name.....: Chris Egan
Company.....: Division of Survey & Mapping
Company.....: Department of Property & Services
Street.....: 2 Treasury Place
City.....: Melbourne
State.....: Victoria
Country.....: Australia
Zip Code.....: 3002
Phone Number...:
Telex.....:
Contribution Abstract.....:
Be WARNED !!! - this program needs to be treated with caution,
as it can be used to change any location anywhere on the disk, and it can
easily corrupt files, file directories, or system tables.
However, used with care, it can be very useful. You can use it to
fix up corrupted length words in a file, clear invalid open flags in a
file directory, change passwords in a database root file or other program,
and patch system tables.
The user's capability level determines what can and cannot be done -
change this test to suit your own requirements.
The disk contents are displayed block by block, in octal (or decimal)
and ASCII. You may display a specific disk address, a file directory,
or a file (even if purged). You may change a single word, a string, or
a whole block; and display, and enter, a real or double precision number.
You can find a specific line in a file (even type 3/4 files), and dump the
display to a terminal printer, or spool it to a main printer (LU 6).
A help command will guide you through the program's capabilities,
and "SALVG" contains a couple of examples.
Additional Documentation....: "SALVG

```



TRACE

L029

TRACE EXECUTION OF A FORTRAN PROGRAM

```

Contribution Name.....: TRACE
Title.....: Trace execution of a FORTRAN program
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. 'TRACE - Submission file
:02. &TRACE - FTN4X source
:03. [TRACE - FTN4X include file
:04. %TRACE - relocatable
:05. *TRACE - loader command file
:06. "TRACE - documentation file
Operating System(s).....: RTE-4B, RTE-6, and probably others
Language(s).....: FTN4X
Keywords.....: 1. FORTRAN
: 2. DEBUG
External Support Req'd...: Routines from ELIBS
If Re-submission, Reason.:
Contributor's Name.....: Chris Egan
Company.....: Division of Survey & Mapping
Company.....: Department of Property & Services
Street.....: 2 Treasury Place
City.....: Melbourne
State.....: Victoria
Country.....: Australia
Zip Code.....: 3002
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program allows you to find out exactly what your program is up to.
It creates a new version of your FORTRAN program, with calls to a subroutine
which writes out a message each time it is called. These calls can be
inserted before all executable statements, or just those with statement
numbers; and you can trace the whole file, or just selected subroutines
or functions. The LU for output defaults to 7, but can be specified.

```

Very useful when your program runs amok - count the number of times it executes a DO loop, or find out exactly when and where it branched.

The program has not been checked with FTN7X source files, but there should be no major problems. See "TRACE" for more details, and other problems which might arise.

Run TRACE for instructions.
Additional Documentation....: "TRACE"

TY

L030

LIST A FILE SCREEN BY SCREEN

```
Contribution Name.....: TY
Title.....: List a file screen by screen
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. 'TY - Submission file
                  :02. &TY - FTN4X source
                  :03. [TY - FTN4X include file
                  :04. ^TY - relocatable
                  :05. *TY - loader command file
Operating System(s).....: RTE-4B, RTE-6
Language(s).....: FTN4X
Keywords.....: 1. LIST
External Support Req'd...: Routines from ELIBS
If Re-submission, Reason.:
Contributor's Name.....: Chris Egan
Company.....: Division of Survey & Mapping
Company.....: Department of Property & Services
Street.....: 2 Treasury Place
City.....: Melbourne
State.....: Victoria
Country.....: Australia
Zip Code.....: 3002
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program has developed from the old SHELL TY, and the SEE program
on tape 8340, and includes a few enhancements.
Any file, anywhere on the system, may be listed - except type 5, 6, 7
which cause havoc with the screen display.
Options include truncating long lines, listing a specified field,
eg. columns 70-120, and displaying line numbers. You can move backwards
or forwards in the file, or jump to a specified line. The search facility
is fast, and includes FIND ALL option, as in EDIT.
Run TY for instructions.
Additional Documentation....:
```

WRITE

L031

LIST A FILE TO PRINTER OR TERMINAL

```
Contribution Name.....: WRITE
Title.....: List a file to printer or terminal
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. 'WRITE - Submission file
                  :02. &WRITE - FTN4X source
                  :03. [WRITE - FTN4X include file
                  :04. ^WRITE - relocatable
                  :05. *WRITE - loader command file
Operating System(s).....: RTE-4B, RTE-6
Language(s).....: FTN4X
Keywords.....: 1. LIST
External Support Req'd...: Routines from ELIBS
If Re-submission, Reason.:
Contributor's Name.....: Chris Egan
Company.....: Division of Survey & Mapping
Company.....: Department of Property & Services
Street.....: 2 Treasury Place
City.....: Melbourne
State.....: Victoria
Country.....: Australia
Zip Code.....: 3002
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program will list a file to a terminal, or a printer, or copy
it to another file. Any file, anywhere on the system, can be read, even
while open. Maximum record length that can be handled is 512 words.
Output is automatically spooled to a printer on LU 6 or 7. The listing
can be numbered, or have long lines truncated - and with a printer, it
can be double spaced, or in condensed mode. The whole file, or just a
line range, can be listed.
Run WRITE for instructions.
Additional Documentation....:
```

DSST

L032

RTE-6VM & RTE-A DISTRIBUTED SYSTEM MONITORS

```
Contribution Name.....: DSST
Title.....: RTE-6VM & RTE-A Distributed System Monitors
File Names.....: 00. Rename transfer file
                  : 01. DSST1.SBMT
                  : 02. DSST1.FTN
                  : 03. DSST2.FTN
                  : 04. DSST3.FTN
                  : 05. DSSLB.FTN
                  : 06. IDSEGMENTINFO.MAC
                  : 07. DSST1.LOD
                  : 08. DSST2.LOD
                  : 09. DSST3.LOD
Operating System(s).....: RTE-6VM and RTE-A
Language(s).....: FTN7X
Keywords.....: 1. DS
```

```

External Support Req'd... : 2. MONITOR
If Re-submission, Reason.:
Contributor's Name..... : D.A. Thombs
Company..... : DQA/TS
Street..... : Royal Arsenal East
City..... : Woolwich
State..... : London
Country..... : U.K.
Zip Code..... : SE18 6TD
Phone Number... : 01-854-2044 Ext 4091
Telex..... : 22210
Contribution Abstract..... : DSST1 and DSST2 are dynamic distributed
system monitors which allow the user to
monitor system activity. The programs
and usage were described in a paper
presented at the 1986 Detroit
Conference.
Additional Documentation.... :

```

LISP

L033

LISP INTERPRETER

```

Contribution Name..... : LISP
Title..... : LISP interpreter
File Names..... : 000. Rename Transfer File.
: 001. 'LISP - Submission File.
: 002. LISP.PAS Interpreter (rev-1.5)
: 003. LISP.INC Include file
: 004. LISP.READ Read me file
: 005. LISP.DOC Printable document
: 006. LISP.RUN type 6 file A-series/CDS
Operating System(s)..... : RTE-A
Language(s)..... : PASCAL
Keywords..... : 1. LANGUAGE
: 2. AI
External Support Req'd... :
If Re-submission, Reason.: Fixes and Updates
Contributor's Name..... : Dan Felman
Company..... : HP/ Rockville
Street..... : 2 Choke Cherry Rd.
City..... : Rockville
State..... : Md.
Country..... : USA
Zip Code..... : 20850
Phone Number... : (301) 258-2000
Contribution Abstract..... :
LISP is a language used extensively by the Artificial Intelligence
community. This version is a much extended version of the interpreter
submitted at the Washington DC. conference.

This version requires a CDS RTE-A operating system as it currently
links into 3 code segments. It might also work under RTE-6 using
SGMTR and MLLDR, albeit slower than a equivalent A-series machine.

NOTICE -- You need to have PASCAL libraries in order to link the
interpreter. The following is a sample .lod file:

li pascal_cds.lib
st 18000
re lisp.rel
en

A similar version is running on my VECTRA and should have been
submitted to the Detroit swap tape. Maybe even a HP150 version.

Additional Documentation.... : LISP.READ expalins some of the major changes
done to the original contribution.
LISP.DOC is a manual (TEXED output) that is ready to be printed.
This document is not finished but it should be enough to get you
going.

```

SEARCHLIB

L034

BINARY-SEARCH LIBRARY ROUTINES

```

Contribution Name..... : SEARCHLIB
Title..... : Binary-search library routines
File Names..... : 00. Rename Transfer File [by CSL]
: 01. SEARCHLIB.SBMT - This file
: 02. SEARCHLIB.FTN - Library source.
: 03. SEARCHLIB.REL - Relocatables.
: 04. SEARCH.LIB - LINDX'ed Library.
: 05. SEARCHLIB.CMD - Compile and LINDX.
Operating System(s)..... : Any
Language(s)..... : FTN7X
External Support Req'd... : None
If Re-submission, Reason.:
Keywords..... : 01. SEARCH
: 02. LIBRARY
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..... :
This contribution consists of a set of fast subroutines performing a binary
search for various types of variables:

VARIABLE TYPE SUBROUTINE
-----
INTEGER*2 ISEARCH
INTEGER*4 JSEARCH
REAL*4 R4SEARCH
REAL*8 R8SEARCH
CHARACTER CSEARCH

```

Usage: CALL SUBROUTENAME(TABLE,KEY,POINTER, TABLESIZE)

The pointer will contain a positive location for a key present in the TABLE or a negative number whose positive value is the point in the table where the KEY should be inserted. This makes these subroutines useful for tasks beyond the usual search routines. Such tasks include the occasional addition of keys to an already sorted table, small order interpolation in a large table, cubic spline evaluation and differential equations.

Additional Documentation....: See the article in TC-INTERFACE of Jan/Feb 1987 entitled "PRACTICAL ALGORITHMIC DEVELOPMENT AND TRADE-OFFS".

HANOIFTN

L035

RECURSIVE TOWER OF HANOI IN FORTRAN

Contribution Name.....: HANOIFTN
Title.....: Recursive Tower of Hanoi In FORTRAN
File Names.....:00. Rename Transfer File [by CSL]
 :01. HANOIFTN.SBMT - This file
 :02. HANOI.FTN - The game.
Operating System(s).....: RTE-A A.85 and up. VC+ required.
Language(s).....: FTN7X
External Support Req'd...: None
If Re-submission, Reason.:
Keywords.....:01. GAMES
 :02. DEMO
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.....:
This contribution consists of the famous Tower of Hanoi game in FORTRAN. As the program is recursive, VC+ is necessary. The program demonstrates well the power of recursion.

Usage: HANOI,TOWERSIZE,LISLU

Additional Documentation....: None.

CHANGERPL

L036

CHANGE RPL'S FOR PROGRAM TRANSPORTABILITY

Contribution Name.....: CHANGERPL
Title.....: Change RPL's for program transportability
File Names.....:00. Rename Transfer File [by CSL]
 :01. CHANGERPL.SBMT - This file
 :02. NVCCHANGERPL.FTN - Non-VC+ version
 :03. CHANGERPL.FTN - CDS recursive version
 :04. CHANGERPL.LOD - CDS Link file
 :05. TEST.RUN - Test file. May not load
 :06. X.CMD - A 1-level test dir.
 :07. Y.CMD - A 10-level test dir.
 :08. FOLOGO.CMD - FORtran LOad and GO
 :09. NVCLOADRUNALL.CMD - Command it & stand back
 :10. CDSLOADRUNALL.CMD - Command it & stand back
 :11. TEST.FTN - Source for 5 above
Operating System(s).....: RTE-A A.85 and up. Perhaps -6
Language(s).....: FTN7X
External Support Req'd...: None
If Re-submission, Reason.:
Keywords.....:01. LINK
 :02. TRANSPORTABLE
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.....:

This contribution consists of two 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. 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. The CDS version will go to all the subdirectories as well.

X.CMD creates a global directory /X and fills it with various files. This /X directory then provides exercising and demonstrating opportunities for the non-VC+ version.

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 for the CDS version.

FOLOGO.CMD compiles, loads and runs a program and NVCLOADRUNALL.CMD will do it for NVCCHANGERPL and X.CMD as well, while CDSLOADRUNALL.CMD will do the same for CHANGERPL and Y.CMD.

TEST.RUN is a program linked with a funny SNAP file on an A600+, thus will force an RPL change. Do not run it, as you will change the RPL before the demonstration! In case you are interested, or TEST refuses to load, you

have the source. This you may recompile and link with a SNAP file 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!

After having thus frightened the potential user, I hasten to add that no damage was ever done by these programs in my installation.

Do not use the programs on a directory that contains these programs, as they will stop when trying to change their own RPL. Also beware of running these programs on /PROGRAMS/ as all the RP'd programs will be off'ed. If you do, remember to RP the important ones (PROMT etc.) again after termination.

Additional Documentation....: None.

PATCHBITMAP

L037

CHANGE SENSE OF BITS IN SECTOR-ALLOCATION BITMAPS

Contribution Name.....: PATCHBITMAP
Title.....: Change sense of bits in sector-allocation bitmaps
File Names.....:00. Rename Transfer File [by CSL]
 :01. PATCHBITMAP.SBMT - This file
 :02. PATCHBITMAP.FTN - Source file
Operating System(s).....: RTE-A A.85 and up. Perhaps -6
Language(s).....: FTN7X
External Support Req'd...: None
If Re-submission, Reason.:
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 TF 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!

This program was tested up to an LU size of 120,000 sectors only.

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

Additional Documentation....: None.

HEAPSORT

L038

SORTING SUBROUTINES - HEAPSORT AND INSERTION

Contribution Name.....: HEAPSORT
Title.....: Sorting subroutines - Heapsort and Insertion
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.:
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

Contribution 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 $N \cdot \log(N)$ 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)

Additional Documentation....: See HEAPSORT.DOC

HP54201

HP54201 DIGITAL SCOPE DISPLAY CAPTURE

L039

Contribution Name.....: HP54201
Title.....: HP54201 Digital Scope Display Capture
File Names.....: 00. Rename transfer file.
: 01. HP54201.SBMF
: 02. BELLMACLIB.CMP
: 03. BELLMACLIB.LIB
: 04. BELLMACLIB.MAC
: 05. BELLQAXLIBRARY.CMP
: 06. BELLQAXLIBRARY.FTN
: 07. BELLQAXLIBRARY.LIB
: 08. CS.FTN
: 09. CS.LOD
: 10. CS.REL
: 11. DUMPTOSCOPE.FTN
: 12. DUMPTOSCOPE.REL
: 13. FILEFORMAT.DOC
: 14. HS420GRF.FTN
: 15. HS420GRF.REL
: 16. HS420GRF23.LOD
: 17. HS420GRF48.LOD
: 18. HS420GRF50.LOD
: 19. HS420GRF72.LOD
: 20. HS420RE2623.LOD
: 21. HS420RE2648.LOD
: 22. HS420REGRF.FTN
: 23. HS420REGRF.REL
: 24. HS420REPLAY.FTN
: 25. HS420REPLAY.LOD
: 26. HS420REPLAY.REL
: 27. HS420RETERM.FTN
: 28. HS420RETERM.REL
: 29. HP54201.FTN
: 30. HP54201.LOD
: 31. HP54201.REL
: 32. HP54201CAP.FTN
: 33. HP54201CAP.LOD
: 34. HP54201CAP.REL
: 35. HP54201LIB.CMP
: 36. HP54201LIB.FTN
: 37. HP54201LIB.LIB
: 38. HP54201LIB.REL
: 39. HP54201MOD.FTN
: 40. HP54201MOD.LOD
: 41. HP54201MOD.REL
: 42. INSTALL.CMD
: 43. LINKS.FTN
: 44. LINKS.LOD
: 45. LINKS.REL
: 46. OS.FTN
: 47. OS.LOD
: 48. OS.REL
: 49. PLOTLUFOR7550.FTN
: 50. PLOTLUFOR7550.REL
: 51. PLOTLUFOR9872.FTN
: 52. PLOTLUFOR9872.REL
: 53. PLOTLUFORSSCREEN.FTN
: 54. PLOTLUFORSSCREEN.REL
: 55. SCRATCH.DO1
: 56. SCRATCH.DO2
: 57. SCRATCH.DO3
: 58. SCRATCH.DO4
: 59. SCRATCH.DOT
: 60. SPO05C
: 61. SPO05O
: 62. SPO07C
: 63. SPO07O
: 64. SPO09C
: 65. SPO09O
: 66. SPOOLC
: 67. SPOOLO
Operating System(s).....: RTE-5/VM, RTE-A
Language(s).....: FORTRAN 77, requires C.83 or later
Keywords.....: 1. AFS
: 2. HP1B
: 3. DIGITIZER
: 4. DATA ACQUISITION
External Support Req'd...: C.83 or later
: CI file system
: DGL
If Re-submission, Reason.:
Contributor's Name.....: David R. Rodgers

Company.....: Bell Canada (Quality Assurance)
 Street.....: 316 - 2265 Roland Therrien
 City.....: Longueuil
 State.....: Quebec
 Country.....: Canada
 Zip Code.....: J4N 1C5
 Phone Number...: 514-647-5131

Contribution Abstract.....:
 The HP54201 Digital Oscilloscope has a sample rate of up to 200 MHz, and is a very powerful instrument considering its price. The programs in this contribution allow the oscilloscope waveform information to be captured and stored in files. This info can then later be retrieved, plotted, analyzed etc.

Instructions:

Take a quick look at the INSTALL.CMD file, and check to see if everything matches your system. Then type: INSTALL
 The entire system should automatically load. There are 4 sample waveform files called SCRATCH.D0x.

MD

EXTENDED WD COMMAND

L040

Contribution Name.....: MD
 Title.....: Extended WD command
 File Names.....:00. Rename Transfer File
 :01. MD.SBMT This file
 :02. MD.FTN Source
 :03. MD.DOC Documentation

Operating System(s).....: RTE-A, RTE-6
 Language(s).....: FTN77
 External Support Req'd...: None
 If Re-submission, Reason.:
 Keywords.....: 1. Directory
 : 2. CI
 : 3. Path

Contributor's Name.....: Debra K. Wagner
 Company.....: Rockwell International
 Street.....: P.O. Box 464 Rocky Flats Plant, Bldg 564
 City.....: Golden
 State.....: CO
 Country.....: USA
 Zip Code.....: 80402-0464
 Phone Number.....: 303/966-7983

Contribution Abstract.....:
 This program acts as an advanced substitute for the CI command WD. All features of WD are implemented plus some extras. MD is a combination of two programs already submitted and a new subroutine which gives additional features that are not in the previous two programs. The programs are SD, submitted by Dan Felman, and UpDir, submitted by Christopher Nelson. I have combined these functions into one so that the user doesn't have to remember all of the programs and their usages.

The expanded features are:
 MD >BROTHER will move the working directory to another directory on the same level in the hierarchy. (This includes global directory changes too.)

MD ^n will move up "n" levels from current directory (If "n" is omitted, will move up 1 level)

MD ^^ will move the working directory to the global level from anywhere lower in the hierarchy

MD -SUBDIR will move the working directory to a subdirectory any number of levels lower in the same hierarchy

Additional Documentation.....:

SET_LU

CONFIGURE MUX PORTS FOR 4.1 SERIAL DRIVERS

L041

Contribution Name.....: SET LU
 Title.....: Configure mux ports for 4.1 Serial Drivers
 File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. SET_LU.SBMT submission file
 :02. SET_LU.FTN
 :03. SET_LU.LOD
 :04. SET_LU.REL
 :05. SET_LU.HLP documentation for /help/
 Operating System(s).....: RTE-A 4.1 or later
 Language(s).....: FTN7X
 Keywords.....: 1. Multiplexor
 : 2. Configure

External Support Req'd...:
 If Re-submission, Reason.:
 Contributor's Name.....: Diane Pezick
 Company.....: Aluminum Co. of America
 Street.....: Hall Road
 City.....: Alcoa
 State.....: Tennessee
 Country.....: USA
 Zip Code.....: 37701
 Phone Number...: (615)977-3585
 Telex.....:

Contribution Abstract.....: This utility may be used for configuring multiplexer ports on Serial I/O Drivers that support Special Status Reads. Drivers ID801, ID800 and ID400 released at the 4.1 update are supported. Through an interactive sequence the user answers questions about configuring a mux port. After all the questions have been answered, the two CN commands necessary to reconfigure the channel are displayed. The user may choose to have them executed automatically by the Set Lu program, or just have them displayed for information or for later entry through CI.

GET_MUXCONFIG

L042

DISPLAY DRIVER PARAMETERS FOR A MUX PORT

Contribution Name.....: GET_MUXCONFIG
 Title.....: Display Driver Parameters for a Mux Port
 File Names.....: 00. Rename Transfer File (Interex-supplied) submission file
 : 01. GET_MUXCONFIG.SBMT
 : 02. GET_MUXCONFIG.FTN
 : 03. GET_MUXCONFIG.LOD
 : 04. GET_MUXCONFIG.REL
 : 05. GET_MUXCONFIG.HLP documentation for /help/
 Operating System(s).....: RTE-A-4.1 or later
 Language(s).....: FTN7X
 Keywords.....: 1. Multiplexor
 : 2. Status

External Support Req'd...:
 If Re-submission, Reason...:
 Contributor's Name.....: Diane Pezick
 Company.....: Aluminum Co. of America
 Street.....: Hall Road
 City.....: Alcoa
 State.....: Tennessee
 Country.....: USA
 Zip Code.....: 37701
 Phone Number...: (615)977-3585
 Telex.....:

Contribution Abstract.....: Get MuxConfig is a utility for displaying the driver parameters in effect for a chosen LU. This utility supports only Serial Drivers that use the Special Status Reads (Drivers introduced at the 4.1 Rev.). For more information including a list of the parameters displayed, see the Help file: Get_MuxConfig.hlp

Additional Documentation....: See GET_MUXCONFIG.HLP and source code.

CKPROGSVSBGPRI

L043

CHECK PROGRAM PRIORITY VS BG AND TS PRIORITIES

Contribution Name.....: CkProgsVsBGPri
 Title.....: Check Program Priority vs BG and TS Priorities
 File Names.....: 00. Rename Transfer File (Interex-supplied) submission file
 : 01. CKPROGSVSBGPRI.SBMT
 : 02. CKPROGSVSBGPRI.FTN
 : 03. CKPROGSVSBGPRI.LOD
 : 04. CKPROGSVSBGPRI.REL
 : 05. CKPROGSVSBGPRI.HLP documentation for /help/
 Operating System(s).....: RTE-A
 Language(s).....: FTN7X
 Keywords.....: 1. status
 : 2. id segments
 : 3. system

External Support Req'd...:
 If Re-submission, Reason...:
 Contributor's Name.....: Diane Pezick
 Company.....: Aluminum Co. of America
 Street.....: Hall Road
 City.....: Alcoa
 State.....: Tennessee
 Country.....: USA
 Zip Code.....: 37701
 Phone Number...: (615)977-3585
 Telex.....:

Contribution Abstract.....: CkProgsVsBGPri checks the program priority of each .RUN program in the specified directory against the background(BG) and timeslice(TS) priorities. If the program's priority is higher than either the timeslice or background priorities, then a report line is written to your terminal (LU 1). Most useful during operating system update to verify that HP utilities and programs have proper priorities in relation to real-time user programs. Once CkProgsVsBGPri identifies these higher priority programs, the user must decide if a priority change is required.

Additional Documentation....: See CKProgsVSBGPri.HLP and source code.

USAGE

L044

MONITOR AND REPORT SYSTEM USAGE BY USER

Contribution Name.....: USAGE
 Title.....: Monitor and Report System Usage by User
 File Names.....: 00. Rename Transfer File
 : 01. USAGE.SBMT CSL Submission file
 : 02. MONITABLES.INCL Include for MONITOR
 : 03. MONITOR.FTN MONITOR source
 : 04. MONSCH IMAGE schema
 : 05. PRUNS.INCL Include for USAGE
 : 06. USAGE.FTN USAGE source
 : 07. USAGELISTS.INCL Include for USAGE
 Operating System(s).....: RTE-6/VM
 Language(s).....: Fortran 77
 Keywords.....: 1. ACCOUNTING
 : 2. MONITOR
 : 3. REPORTS

External Support Req'd...: IMAGE
 If Re-submission, Reason...:
 Contributor's Name.....: Don Wright
 Company.....: Interactive Computer Technology
 Street.....: 2069 Lake Elmo Avenue North
 City.....: Lake Elmo
 State.....: MN
 Zip Code.....: 55042
 Phone Number...: 612/770-3728
 Telex.....: 650 211 1023 (WUI)

Contribution Abstract.....:

MONITOR and USAGE provide a system manager with thorough reports about how the system is used. MONITOR runs in the system session and in the time list, sampling user sessions at frequent intervals. When a user logs off, MONITOR writes an IMAGE record describing the amount of use of every program run by that user. In the record are dates and times, CPU usage and elapsed time, the actual (generic) name of the program, and more. USAGE can be invoked at any time to report on the usage for any time period of interest. It can report its results sorted by user or by program or both, and in a summary or full-report format.

MONITOR requires less than 1% of the system's time. USAGE sorts its data as fast as it can read it from the IMAGE data base. Since it always reports a date span, it does not perform a serial search on the detail data set but instead follows the date chains and is very quick.

The IMAGE data base was designed for IMAGE I and therefore may be used with either IMAGE I or IMAGE II.

Additional Documentation....: Sources are self-documenting.

BTIME

L045

SYSTEM UP AND DOWN TIME RECORDING

Contribution Name.....: BTIME
 Title.....: System up and down time recording
 File Names.....: 00 RENAME TRANSFER FILE
 : 01 BTIME.SBMT SUBMIT FILE
 : 02 BTIME.FTN SOURCE
 : 03 UTIME.FTN SOURCE
 : 04 BTIME.REL
 : 05 UTIME.REL
 Operating System(s).....: RTE-6 AND RTE-A
 Language(s).....: FTN77
 Keywords.....: 1. BOOT-UP
 : 2. ACCOUNTING
 External Support Req'd...: RTE AND CI FILES
 If Re-submission, Reason.: BUG FIX
 Contributor's Name.....: DONALD L. CLAPP
 Company.....: ELI LILLY & CO.
 Street.....: 307 E. MCCARTY ST.
 City.....: INDIANAPOLIS
 State.....: INDIANA
 Country.....: US
 Zip Code.....: 46285
 Phone Number...: (317) 261-4458
 Telex.....:
 Contribution Abstract.....: These are two programs which keep track of when a system is booted and when it is halted. I was inspired by a previous contribution of Alan Tibbetts. This version provides for 128 boots and calculates both uptime and down time. The initialization program will also warn you if you set the system time to a value that is before the last time recorded in the history file.
 Additional Documentation....: SEE SOURCE CODE

PASS_CHECK

L046

PASSWORD AGING AND CHANGING

Contribution Name.....: PASS_CHECK
 Title.....: Password aging and changing
 File Names.....: 00 RENAME TRANSFER FILE
 : 01 PASS_CHECK.SBMT
 : 02 PASS_CHECK.FTN
 : 03 PASS_CHECK.REL
 Operating System(s).....: RTE-A
 Language(s).....: FORTRAN 77
 Keywords.....: 1. SECURITY
 : 2. SESSION
 : 3. Logon/Logoff
 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.....: US
 Zip Code.....: 46285
 Phone Number...: (317) 261-4458
 Telex.....:
 Contribution Abstract.....: This program will monitor when passwords are changed. When a user logs on, this program checks the current password against a file to determine when the password was changed. If more than 60 days (easily configured) have elapsed then the user is required to change their password. This program is executed from a 'HI' file.
 Additional Documentation....:

DBUTILITY

L047

92069 IMAGE UTILITIES

Contribution Name.....: DBUTILITY
 Title.....: 92069 IMAGE utilities
 File Names.....: 00 RENAME TRANSFER FILE
 : 01 DBUTL.SBMT
 : 02 DBSPC.FTN
 : 03 DBSPB.FTN
 : 04 DBVfy.FTN
 : 05 DBSYN.FTN
 : 06 DBMVR.FTN
 : 07 DBMOV.FTN
 : 08 DBSEC.FTN
 : 09 DBITM.FTN
 : 10 DBCPM.FTN
 : 11 DBCPD.FTN
 : 12 DBSPC.REL

```

: 13 DBSPB.REL
: 14 DBVfy.REL
: 15 DBSYN.REL
: 16 DBMVR.REL
: 17 DBMOV.REL
: 18 DBSEC.REL
: 19 DBITM.REL
: 20 DBCPM.REL
: 21 DBCPD.REL
: 22 OPEN_LOCKED_FILE.MAC
: 23 OPEN_LOCKED_FILE.REL
Operating System(s).....: RTE(ALL)
Language(s).....: FORTRAN77 AND MACRO
Keywords.....: 1. IMAGE
: 2. DATA_BASE
External Support Req'd...: NONE
If Re-submission, Reason.: ENHANCEMENTS AND ADDITIONS
Contributor's Name.....: DONALD L. CLAPP
Company.....: ELI LILLY & CO.
Street.....: 307 E. MCCARTY ST.
City.....: INDIANAPOLIS
State.....: INDIANA
Country.....: US
Zip Code.....: 46285
Phone Number...: (317) 261-4458
Telex.....:
Contribution Abstract.....: This is a collection of IMAGE DATA BASE
(92069 ONLY!) utilities. With these programs additional structural
information can be obtained and the data base structure can be modified.
Most of these programs do require exclusive use of the data base and
none of them use IMAGE subroutines. The system manager should restrict
the availability of all of these programs.

```

DBSPC:
This utility reports capacity information from the root file of an IMAGE data base. The program will report capacities even if the data base is open exclusively to some other application. The execution time is usually less than five seconds and is NOT a function of the size of the data sets.

DBSPB:
This program reads all the records in all the sets of a data base. It reports all the values that 'DBSPA' reports and in addition gives set usage in percent, counts the synonyms in the master sets and identifies set type by name (manual, auto., detail). The execution speed is 2 - 5 times faster than 'DPSPA'.

DBVfy:
This utility examines all of the chains in one or all of the detail sets of a data base. Any pointers or key values that are not consistent are reported. With this information the data base could be repaired with QUERY or for the brave, 'CMM6'.

DBSYN:
This utility allows the investigation of the results of capacity changes or hashing algorithm changes on the synonym content of an existing master data set. The data base is opened shared and the program does not write into the set.

DBMVR:
This program moves a data base root file to a different cartridge.

DBMOV:
This program moves a set to a different cartridge.

DBSEC:
This utility allows the changing of level words and item level security.

DBITM:
This program allows changing an items name or type.

DBCPM:
This program allows changing the capacity of a master set.

DBCPD:
This program allows changing the capacity of a detail set.

OPEN LOCKED FILE:
This subFoutine is used by 'DBSPC' if the root file open fails with a -8 error. Read the source before you use it elsewhere.

Additional Documentation....: See the source files for calling sequence.

CTOME

L048

COPY CONSOLE DISPLAY TO MY TERMINAL

```

Contribution Name.....: CTOME
Title.....: Copy console display to my terminal
File Names.....: 00 RENAME TRANSFER FILE
: 01 CTOME.SBMT
: 02 CTOME.FTN
: 03 CTOME.REL
: 04 LYLIB.LIB      NEEDS ONE ROUTINE FROM HERE
:                   SEE CSL-1000 REV. 2625
Operating System(s).....: TESTED ON RTE-A
Language(s).....: FORTRAN 77
Keywords.....: 1. COPY
: 3. TERMINAL
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.....: US
Zip Code.....: 46285
Phone Number...: (317) 261-4458
Telex.....:
Contribution Abstract.....: This program will read back the current
contents of the display memory of a crt. It is hard coded to read
system lu 1 but could be made variable. The output lu is variable.
Additional Documentation....: See source

```



```

:07. FILE.HELP      help for FILE
:08. HELP.HELP     help for HELP
:09. LIST.HELP    help for LIST
:10. MAIL.HELP    help for MAIL
:11. NEXT.HELP    help for NEXT
:12. PREV.HELP    help for PREV
:13. PRINT.HELP   help for PRINT
:14. PURGE.HELP   help for PURGE
:15. READ.HELP    help for READ
:16. SEND.HELP    help for SEND
:17. SORT.HELP    help for SORT
:18. MAIL-INSTAL.DOC
:19. MAIL-USER.DOC
:20. EXPRESS.DEL
:21. EXPRESS.PRNT
:22. EXPRESS.READ
:23. MAIL.FTN
:24. NO_DS_MAIL.FTN  mail without DS
:25. POST.FTN       receiving mail over DS
:26. DS_MAIL.FTN   mail with DS
:27. UTIL_MAIL.FTN  both POST and MAIL
:28. DS_MAIL.REL
:29. MAIL.REL
:30. NO_DS_MAIL.REL
:31. POST.REL
:32. UTIL_MAIL.REL

Operating System(s).....: RTE-A, VCPLUS, CDS
Language(s).....: FTN7X
Keywords.....: 1. MAIL
: 2. MESSAGE
: 3. DS
External Support Req'd...: DS is optional.
If Re-submission, Reason.:
Contributor's Name.....: Donald L. Pipkin
Company.....: Hewlett-Packard
Street.....: 3840 S. 103rd E. Ave.
City.....: Tulsa
State.....: Oklahoma
Country.....: USA
Zip Code.....: 74146
Phone Number...: (918)665-3300x31
Telex.....:
Contribution Abstract.....: I wanted to create a Mail program that
had the best features of UN*X's xmail and the HP 3000's HPDESK.
Mail lets you send files to a user by name and over DS to user name
and node name. It has online help and is very simple to use.
Additional Documentation....: See the .DOC and .HELP files.

```

GC

L052

GAS CHROMATOGRAPHY DATA ACQUISITION WITH THE 3497A

```

Contribution Name.....: GC
Title.....: Gas Chromatography Data Acquisition with the 3497A
File Names.....: 00. Rename Transfer File
:01 GC.SBMT
:02 LOAD.DOC
:03 RUN.DOC
:04 ALL.CMD
:05 ALLLOAD.CMD
:06 CHANCTRLCOMMON.FTN
:07 CHANNEL_CONTROL.FTN
:08 CHANNEL_CONTROL.LOD
:09 COLUMN.FORM
:10 DATA_MGT.CMD
:11 DATA_MGT.FTN
:12 DATA_MGT.LOD
:13 GCINL.FTN
:14 GC_ADDRS.DATA
:15 GC_ADDRS.FORM
:16 GC_ADDRS.FTN
:17 GC_COMMONBKS.FTN
:18 GC_DECLAR.FTN
:19 GC_SETUP.CMD
:20 GC_SETUP.DATA
:21 GC_SETUP.FORM
:22 GC_SETUP.FTN
:23 GC_SETUP.LOD
:24 GC_SETUP_PART1.FTN
:25 GC_SETUP_PART2.FTN
:26 GC_SETUP_PART3.FTN
:27 LOOP.FORM
:28 MONITOR.CMD
:29 MONITOR.LOD
:30 MONITOR_PART1.FTN
:31 MONITOR_PART2.FTN
:32 MONITOR_PART3.FTN
:33 MONITOR_PART4.FTN
:34 MONITOR_PART5.FTN
:35 SORPTION.FORM
:36 SRQ_SERVICE.CMD
:37 SRQ_SERVICE.FTN
:38 SRQ_SERVICE.LOD
:39 WORKUP.CMD
:40 WORKUP.LOD
:41 WORKUP_COMMONBKS.FTN
:42 WORKUP_DECLAR.FTN
:43 WORKUP_PART1.FTN
:44 WORKUP_PART2.FTN
:45 WORKUP_PART3.FTN
:46 WORKUP_PART4.FTN
:47 WORKUP_PART5.FTN
:48 WORKUP_PART6.FTN

Operating System(s).....: RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Data acquisition
: 2. ChemIstry
External Support Req'd...: HP3054C Library
If Re-submission, Reason.:
Contributor's Name.....: Doyle Stroup
Company.....: Chemical Research & Development Engineering Center
Collective Protection Division
Street.....:
City.....: Aberdeen Proving Ground

```

State.....: Maryland
Country.....: USA
Zip Code.....: 21010
Phone Number...: 301-671-3488/3311/3050
Telex.....:
Contribution Abstract.....:
The Gas Chromatography data Acquisition system written by J. Thomas Lynn requires that an HP 3497A be the control and data acquisition device for the GC. The system consist of 8 programs that work together to control the GC, acquire analog outputs, and store the data on disc. The data can be listed and worked up with the post processing modules. Read the source code as it is documented fairly well.

Additional Documentation....: HP 3497A manual, HP 3054C manuals

DIFF

L053

SOURCE FILE COMPARER

Contribution Name.....: Diff
Title.....: Source File Comparer
File Names.....: 00. Rename transfer file
: 01. diff.sbmt - Submission file.
: 02. diff.help - Help file for Diff
: 03. diff.r - Ratfor source file
: 04. diff.ftn - Fortran 77 source file
: 05. diff.rel - relocatable file
: 06. fcl.r - diff library in Ratfor
: 07. argsfc.incl - include file for fcl.r
: 08. fcl.ftn - diff library in Fortran 77
: 09. fcl.rel - diff library relocatable
: 10. diff.lod - link command file
: 11. fcl.lib - diff library
: 12. create diff.cmd - creates diff.run
: 13. rat77.cmd - Ratfor command file
: 14. spooldiff.cmd - spools diff output
: 15. dlff.map - contributor's link map
Operating System(s).....: RTE-A, RTE-6
Language(s).....: sources provided both in Ratfor and Fortran 77
Keywords.....: 1. compare
: 2. tools
External Support Req'd....: EMA
If Re-submission, Reason.: (1) now using all Fmp I/O for efficiency
: (2) new features including: EDIT/1000
: command files, and screen fill pausing.
Contributor's Name.....: Ed McCabe
Company.....: Singer-Kearfott Division
Street.....: 30 Continental Drive, #15A76
City.....: Wayne
State.....: N.J.
Country.....: USA
Zip Code.....: 07470
Phone Number...: (201)-633-4664
Telex.....:
Contribution Abstract.....:
Diff compares two source files and clearly shows the differences between them, without getting lost at times, as many source comparers do.
If you don't have Ratfor (really Rat77), you can compile the Fortran 77 instead, and use the source in Ratfor as documentation.
Additional Documentation....: diff.help

CMMA

L054

RTE-A SYSTEM ANALYZER

Contribution Name.....: CMMA
Title.....: RTE-A System Analyzer
File Names.....: 00. Rename Transfer File
: 01. CMMA.SBMT - Submission file
: 02. CMMA.DOC - documentation
: 03. CMMA.LOD - LINK command file
: 04. CMMA.R - source in Rat77
: 05. CMMA.FTN - source in Fortran 77
: 06. CMMA.REL - relocatable
: 07. ACCESS.MAC - access to system entries
: 08. ACCESS.REL - access to system entries
: 09. CREATE CMMA.CMD - creates CMMA.run
: 10. RAT77.UMD - Ratfor command file
: 11. CMMA.MAP - contributor's link map
Operating System(s).....: RTE-A
Language(s).....: in both Ratfor and Fortran 77, some MACRO
Keywords.....: 01. System
: 02. System tables
: 03. Diagnostic
: 04. Tools
External Support Required:
If Re-submission, Reason.: Converted from C to Rat77 (Fortran 77)
: Derived from J033 by David A. Boskey
Contributor's Name.....: Ed McCabe
Company.....: Singer-Kearfott Division
Street.....: 30 Continental Drive, #15A76
City.....: Wayne
State.....: N.J.
Country.....: USA
Zip Code.....: 07470
Phone Number...: (201)-633-4664
Telex.....:
Contribution Abstract.....:
CMMA is a program which facilitates the analysis of problems in an RTE-A system. CMMA is a stripped-down version of previous versions of CMMx. This version does not have the facility to run in a different computer; i.e. you cannot examine a remote RTE-A from another node in a DS/100 network.
Additional Documentation....: CMMA.DOC (somewhat dated; same as "CMMA 2533")
Notes.....: Block/sector & time conversion commands added
: Could eliminate MAC by \$ALIAS; see SuperU 2533

EASY-TO-INSTALL VERSION OF RATFOR

```

Contribution Name.....: RAT77
Title.....: Easy-to-install version of Ratfor
File Names.....: 00. Rename transfer file.
                  01. RAT77.SBMT - Submission file.
                  02. AA RUN ME FIRST.CMD - Compiles from FTN7X
                  03. RAT77.R -RAT77 in Rat77
                  04. RAT77.HELP - help file
                  05. ARGS.INCL - labeled common
                  06. DS.FTN
                  07. DS.R - table routines
                  08. DS.REL
                  09. IO.INCL - labeled common
                  10. IO.FTN.INCL - labeled common
                  11. PRIMER.DOC - introduction to Ratfor
                  12. R77 F77.EDIT - special editing aid
                  13. RAT77.cmd - Ratfor command file
                  14. RAT77.ftn - RAT77 in Fortran 77
                  15. RAT77.LIB - collection of lower routines
                  16. RAT77.lod - link command file
                  17. RAT77.map - contributor's linker map
                  18. RAT77.MGIN - merge command file
                  19. RAT77.rel - RAT77 relocatable
                  20. RAT77.COMMON.INCL - defines common blocks
                  21. RATDEF - assortment of define statement
                  22. RCL.FTN - Ratfor character library
                  23. RCL.R
                  24. RCL.REL
                  25. UPDATE RAT77.CMD - for modifying Rat77
                  26. UTILITY.FTN.FTN - basic I/O speeded up
                  27. UTILITY.FTN.REL
Operating System(s).....: RTE-6, RTE-A
Language(s).....: source provided in both Rat77 and Fortran 77
Keywords.....: 1. Compiler
                2. Pre-processor
                3. Language
                4. C
External Support Req'd...: uses EMA
If Re-submission, Reason.: J012 with only Rat77, and improved I/O
Contributor's Name.....: Ed McCabe
Company.....: Singer-Kearfott Division
Street.....: 30 Continental Drive, #15A76
City.....: Wayne
State.....: N.J.
Country.....: USA
Zip Code.....: 07470
Phone Number...: (201)-633-4664
Telex.....:
Contribution Abstract.....:
Rat77 is an enhanced version of a Fortran pre-processor called
Ratfor (Rational Fortran). The control statements are almost the
same as those in C. Rat77 can be useful for compiling C programs
to run on an RTE system. This later version, Rat77 "Beta" also
has text macro facilities that can make data structures in Fortran 77
look like those of C or Pascal.
Ratfor first came out in 1976 in the book, "Software Tools" by
Kernighan & Plauger. You could also order a magnetic tape from
Addison Wesley publishing company with all the software tools
sources on it. Since the advent of Pascal and C, Ratfor has
started to die out, but it's still a great language when used with
Fortran 77 character strings, especially on an HP.
Additional Documentation....: RAT77.r
                            "Software Tools" by Kernighan & Plauger
                            there's a good section on Ratfor in one
                            of the Bell system Unix user's manuals
User's Group.....: Software Tools User's Group
                  140 Center St. (might be an old address)
                  El Segundo, CA 90245
                  (213) 322-2574

```

UNIX-STYLE SORT-MERGE PACKAGE FOR RTE-A IN FORTRAN 77

```

Contribution Name.....: SORT
Title.....: Unix-style sort-merge package for RTE-A in Fortran 77
File Names.....: 00. Rename transfer file.
                  01. sort.sbmt - Submission file.
                  02. sort.r - Sort in Rat77
                  03. csort.comn - labeled common
                  04. flist.comn - labeled common
                  05. select.comn - labeled common
                  06. sort.ftn - Sort in Fortran 77
                  07. sort.rel - Sort relocatable
                  08. sort.help - help file
                  09. sort.lod - link command file
                  10. sort.map - contributor's linker map
                  11. fcl.r - utility library in Rat77
                  12. argsfc.incl - include file for fcl.r
                  13. fcl.ftn - utility library in Fortran 77
                  14. fcl.rel - utility library relocatable
                  15. fcl.lib - utility library indexed
                  16. fmp.r - Fmp I/O library in Rat77
                  17. ioimp.incl - include file for fmp.r
                  18. fmp.ftn - Fmp I/O library in Fortran 77
                  19. fmp.rel - Fmp I/O library relocatable
                  20. fmp.lib - Fmp I/O library indexed
                  21. qisort.ftn - qisort (in Fortran 77)
                  22. qisort.rel - qisort relocatable
                  23. qisort.lib - qisort library indexed
                  24. create.sort.cmd - creates sort.run
                  25. rat77.cmd - Ratfor command file
                  26. flatten.dl.edit - makes something to sort
Operating System(s).....: RTE-6, RTE-A
Language(s).....: both Ratfor and Fortran 77 provided.
Keywords.....: 1. sort
                2. merge
                3. Unix

```

External Support Req'd...: none (no EMA used)
 If Re-submission, Reason...: J015 rewritten for Fortran 77 strings.
 : Ratfor I/O routines converted to Fmp calls.
 : optimized
 Contributor's Name.....: Ed McCabe
 Company.....: Singer-Kearfott Division
 Street.....: 30 Continental Drive, #15A76
 City.....: Wayne
 State.....: N.J.
 Country.....: USA
 Zip Code.....: 07470
 Phone Number...: (201)-633-4664
 Telex.....:
 Contribution Abstract.....:
 A sort/merge package with Unix style options. Very fast for files
 small enough for in-memory sorting (under 32,000 characters). Uses
 polyphase merge to sort larger files, limited only by size of
 scratch disk area.
 This contribution is based on SMERGE (J015) by Rich Drescher.
 Ratfor character by character I/O has been replaced by Fmp calls,
 and Fortran 77 character strings are used. User interface revamped.
 Additional Documentation....: sort.help, sort.r, see Unix user manuals

 TYPYR REV. 7.24

L057

 TYPYR- WORD PROCESSING PROGRAM

Contribution Name.....: TYPYR Rev. 7.24
 Title.....: TYPYR- Word Processing Program
 File Names.....: 00. Rename Transfer File
 : 01. *TYPYR submission file
 : 02. *TYP7A main source
 : 03. *TYP7B segment 0
 : 04. *TYP7C segment 1
 : 05. *TYP7D segment 2
 : 06. *TYP7E segment 3
 : 07. *TY7LC library of Fortran srtns
 : 08. *TYPLC library of assembler srtns
 : 09. *TYPYR include file for TYP7A-E and LB
 : 10. *TYP7A main relocatable
 : 11. *TYP7B segment 0 rel
 : 12. *TYP7C segment 1 rel
 : 13. *TYP7D segment 2 rel
 : 14. *TYP7E segment 3 rel
 : 15. *TYPLB.LIB *TY6LB relocatable library file
 : 16. *TYPLC.LIB *TYPLC relocatable library file
 : 17. *SHSLTB.LIB Haystack Library
 : 18. *SCHAR.LIB Character string library
 : 19. *TYPYR Link command file
 : 20. *TYPYR the manual for TYPYR
 : 21. ?TYPYR quick help file of commands
 : 22. TYP&TE terminal printer driver table
 : 23. TYP&SDI Diablo 630/HP2601 print driver table
 : 24. TYP&SPA Panasonic 1091/1092 print driver table
 : 25. TYP&SLA LaserJet print driver table (no cart)
 : 26. CARTB LaserJet print driver table (92286B)
 : 27. CARTD LaserJet print driver table (92286D)
 : 28. CARTF LaserJet print driver table (92286F)
 : 29. CARTG LaserJet print driver table (92286G)
 : 30. CARTJ LaserJet print driver table (92286J)
 : 31. CARTR LaserJet print driver table (92286R)
 : 32. CARTT LaserJet print driver table (92286T)
 : 33. WP2934 HP2934 print driver table (printer)
 : 34. WP&SP HP2934 print driver table (wp mode)
 : 35. TYP&SP NEC Spinwriter print driver table
 : 36. TAP&S printer driver table for tape
 : 37. *FONTS easy entry of font esc sequences
 : 38. DEMO-J demo of the J cartridge
 : 39. DEMO- demo of TYPYR
 : 40. CHARF.FTN Source for *SCHAR.LIB
 : 41. CHARM.MAC Source for *SCHAR.LIB
 Operating System(s).....: RTE-6 and RTE-A (must have C.83)
 Language(s).....: FORTRAN 77 and MACRO
 Keywords.....: 1 WORD PROCESSING
 External Support Req'd...: Some sort of printer
 If Re-submission, Reason...: TYPYR is the son of TYPE, grandson of
 : TYPO and is continually being upgraded.
 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.....: This is the program TYPE revised to
 run under RTE-6 and RTE-A, to drive all kinds of printers including
 dot matrix (Panasonic, Epson, etc.), and LaserJet, and add a few new
 commands. It can be run through any driver including the multiplexor.
 Before you try it, PLEASE read Appendix J and K. Specifically, check
 Appendix J to see how to set the printer LU and scratch disk defaults.
 Using the J cartridge and CARTJ printer driver table, math and Greek
 symbols are available on the LaserJet (see DEMO_J)
 Appendix K is a history of the revisions. You should review it, since
 not all changes have been backwards compatible (that is, you may need to
 change some parameters in your printer driver tables).
 Additional Documentation....: "TYPYR is the complete manual.
 It is in TYPYR format, ready for printing. While it may look intimidating,
 a quick scan of the appendices will show that TYPYR usually defaults to
 what you want (at least, when you are just starting).
 To use LaserJet+ soft fonts, see contribution FONTEdit.
 WARNING: at REV. 7.00 the printer driver tables for the LaserJet were changed
 to accommodate proportional spacing. Either use these new tables or change
 the old ones as shown in the "TYPYR file under REV. 7.00.

LOAD AND EDIT LASERJET+ SOFT FONTS

```

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 relocatable file
                  11. SETJET.LOD link file
                  12. $SHLIB.LIB Haystack library
                  13. $CHAR.LIB character handling library
                  14. $CHAR.MAC macro source for $CHAR.LIB
                  15. $CHAR.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. FT12R10.USPM block
                  21. HW12R06.USPM hollow
                  22. LR12R06.USPM large
                  23. OE18RPN.USPM Old English
                  24. SC18RPN.USPM Script
Operating System(s).....: RTE-6 and RTE-A (CT supported)
Language(s).....: FORTRAN 77 and MACRO
Keywords.....: 1. WORD PROCESSING
                2. LaserJet
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
  
```

SPELLING CHECKER

```

Contribution Name.....: SPELR
Title.....: Spelling checker
File Names.....: 00. Rename transfer file
                  01. 'SPELR Submission file
                  02. "SPELR documentation and hints
                  03. #SPELR link command file
                  04. &SPELR source code in FTN7X
                  05. %SPELR relocateable
                  06. &SPELB library of required srtns
                  07. %SPELB relocatable
                  08. &IBTWN required subroutine
                  09. %IBTWN relocatable
                  10. EDITDC dictionary in unloaded form
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FORTRAN 77, requires C.83 or later
Keywords.....: 1. WORD PROCESSING
External Support Req'd...: C.83 or later, EMA
If Re-submission, Reason.: Continuing updates
Contributor's Name.....: F. Stephen Gauss
Company.....: U. S. Naval Observatory
Street.....: 34th St. and Massachusetts Ave. NW
City.....: Washington
State.....: DC
Country.....: U.S.A.
Zip Code.....: 20392
Phone Number...: (202) 653-1510
Contribution Abstract.....: This is a fast spelling checker. It allows
you to correct words interactively and
to add them to the dictionary. A
dictionary of over 3000 words is supplied
and space is allocated for over 10000 words.
EMA and C.83 are required. The program
reads the dictionary into EMA and then
processes text at about 250 words per
second on an A-900.
This release adds the capability to see similar
words to the mis-spelled one.
Additional Documentation....: See the "SPELR file.
                              See &SPELR for the revision history.
  
```

REPORT CI DISC FREE SPACE

```

Contribution Name.....: SPACE
Title.....: Report CI disc free space
File Names.....:00. Rename Transfer File
                  :01. SPACE.SBMT
                  :02. SPACE.FTN
Operating System(s).....: RTE-A
Uses hierarchical files?: Yes
Language(s).....: FTN7X
Keywords.....: 1. CI
                : 2. Data mgmt
External Support Req'd...: CI, CS-80
If Re-submission, Reason.:
Contributor's Name.....: F. Stephen Gauss
Company.....: U.S. Naval Observatory
Street.....:
City.....: Washington
State.....: D.C.
Country.....: USA
Zip Code.....: 20390
Phone Number.....: 202-653-1510
Contribution Abstract.....: Like FREES, but reports in blocks, tracks
or megabytes and allows output to an LU.
Additional Documentation....:

```

DISPLAY CI FILE SIZES

```

Contribution Name.....: DFIND
Title.....: Display CI file sizes
File Names.....:00. Rename Transfer File
                  :01. DFIND.SBMT submission file
                  :02. DFIND.FTN main source
                  :03. DFIND1.FTN library of Fortran srtns
                  :04. DFIND2.MAC library of assembler srtns
                  :05. DFIND.REL main relocatable
                  :06. DFIND1.REL relocatable file
                  :07. DFIND2.REL relocatable file
                  :08. DFIND.LOD Link command file
                  :09. DFIND help file for /HELP/ directory
Operating System(s).....: RTE-6 and RTE-A (must have C.83)
Language(s).....: FORTRAN 77 and MACRO
Keywords.....: 1. FILES
External Support Req'd...:
If Re-submission, Reason.: Added ability to clear backup bits on files
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
Phone Number.....: 202-653-1510
Contribution Abstract.....: Move the file DFIND to the /HELP/
directory and then ? DFIND
This program operates on a directory or set of files as determined by
the file mask. It can
1. show the total size
2. show all files greater than a given size
3. show what LU the files are on
4. show what files are open on a directory
5. clear backup bits
Additional Documentation....:

```

OPERATOR/SYSTEM/APPLICATION/FMGR/CI INTERFACE SKELETON

```

Contribution Name.....: SKELJ
Title.....: Operator/System/Application/FMGR/CI Interface Skeleton
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. SKELJ.SBMT
                  :02. SKELJ.DOC - Help file (ASCII).
                  :03. SKELJ.FTN - Source Code.
                  :04. CPARS - Include file.
                  :05. SKELF - Include file.
                  :06. SKELJ - Include file.
                  :07. SKELP - Include file.
                  :08. SKELJ - Help file (type 1 Dir acc).
                  :09. SKELJ.LOD - LINK/LOADR command file.
                  :10. SKELJ.REL - Relocatable code.
                  :11. SKELJ.LIB - Relocatable library.
                  :12. SKLIB.FTN - FORTRAN library sources.
                  :13. SKLIB.MAC - ASMB library sources.
                  :14. CPARS.TXT - Subroutine usage document.
Operating System(s).....: RTE-6/VM
Language(s).....: FTN7X
Keywords.....: 1. Interface
                : 2. Shell
                : 3. Tools
External Support Req'd...: $FMP6 and other RTE-6 system software.
If Re-submission, Reason.:
Contributor's Name.....: George (Jeff) Wynne
Company.....: USN Ordnance Station
Street.....: Code 6041
City.....: Indian Head
State.....: Maryland
Country.....: USA
Zip Code.....: 20640
Phone Number.....: (301) 743-4153
Telex.....:
Contribution Abstract.....:
SKELJ is a skeleton program which makes use of a number of features
which are included in most of our locally developed software for HP-1000

```

computers. Specifically SKELJ is an interactive program which:

- Has natural command parsing
- Interfaces with FMGR and CI
- Gets file names from runstring
- Clones & schedules other programs
- Can Pass commands to RTE
- Has code for EMA interface
- Does I/O error reporting
- Handles command substrings
- Is parameter controlled
- Is command driven
- Has command stacking
- Has a help file interface
- Has code to open files
- Alters/displays parameters

SKELJ doesn't have any useful function other than to demonstrate its features and provide a skeleton for starting a new program. It's a lot easier to delete the parts you don't want than to try to pull them all together from several different places. With these system interface functions out of the way you can concentrate on the job at hand.

I have included some subroutines from various sources (several from Alan Whitney via prior CSL/1000 releases. Thanks Alan.) You may find these useful, but if not modify SKELJ to work with your own software and I think you will find new Interactive, Command driven, Parameter controlled programs getting off the ground quicker than starting from scratch.

Additional Documentation....:

See the help file SKELJ.DOC. Documentation on programmer usage of command -parsing-retrieval-stacking-etc and system interface subroutines is found in CPARS.TXT.

To link SKELJ on a current RTE-6/VM system. You need SKELJ.LOD, SKELJ.REL and SKELJ.LIB.

NOTE that the cloning features assumes you have the program RP as an active program ('genned in' or 'RPd'). RP was a part of the Haystack Library Submission from a previous CSL 1000.

CROSS

L063

CROSS-CHECK THAT ALL VARIABLES ARE DECLARED

Contribution Name.....: CROSS
Title.....: Cross-check that all variables are declared
File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. CROSS.SBMT (submission file)
 :02. CRLIST.FTN
 :03. CROSS.CMD
 :04. INSTALL.CMD
Operating System(s).....: RTE-A
Language(s).....: FORTRAN 77
Keywords.....: 1. CROSS-REFERENCE
 : 2. COMPILER
External Support Req'd...:
If Re-submission, Reason...:
Contributor's Name.....: Gertrud Roskamp
Company.....: Lehrgebiet fuer Wasser-Energie-Wirtschaft
 : RWTH Aachen
Street.....: Mies-van-der-Rohe-Str. 1
City.....: Aachen
State.....: Nordrhein-Westfalen
Country.....: West-Germany
Zip Code.....: 5100
Phone Number...: 0241-805279
Telex.....:
Contribution Abstract.....: Using the cross reference list, the CRLIST
 program checks whether all variables are de-
 clared, i.e. whether no implicate type decla-
 rations exist. It also checks if the variabl-
 which are declared are actually used. The
 variables, which are either only declared or
 used, are written to an output-file (the
 default name is 'filename.out').

 CRLIST requires an LIST-file, which is gene-
 rated by the command-file CROSS, since the
 program is compiled with QTC-Option.

 CALL : CROSS filename (without extension)

Additional Documentation....:

TED

L064

TEXT EDITOR

Contribution Name.....: TED
Title.....: Text Editor
File Names.....:00. Rename transfer file
 :01. TED.SBMT Submit file
 :02. TED.CMD Command file
 :03. TED.LOD LINK commands for TED
 :04. TED.HLP Help file
 :05. TED.MNL TED manual (WOLF format)
 :06. TEDERRORS.DOC List of detected bugs
 :07. TEDPLANS.DOC List of future plans
 :08. TED.REL TED main program
 :09. TED.LIB TED subroutine library
 :10. TEDLIBA.REL TED's RTE-A library
 :11. TEDLIB6.REL TED's RTE-6 library
 :12. FMASK.FTN File mask program
 :13. FMASK.REL File mask program
 :14. FMASK.CDS.REL File mask program, CDS
 :15. FMASK.LOD Link commands
 :16. FMASK.HLP Help file
 :17. SED.LOD Link file for SED
 :18. SED.REL SED main
 :19. ITY.REL Block data for SED
 :20. DATA.REL ''
 :21. TABS.REL ''
 :22. FLAGS.REL ''

```

: 23. TABLES.REL
: 24. MAINEDIT.REL      Main edit routine
: 25. EDITLINE.REL     Edit one line
: 26. SEDLIB1.REL      SED lib 1
: 27. SEDLIB2.REL      SED lib 2
: 28. SEDLIB3.REL      SED lib 3
: 29. SEDLIB4.REL      SED lib 4
: 30. MACROLIB.REL     SED macro lib
: 31. FTNLIBA.REL      SED's RTE-6 library
: 32. FTNLIB6.REL      SED's RTE-A library
: 33. LS.REL           LS main program
: 34. LS.LOD           Link file for LS
Operating System(s).....: RTE-6/VM, RTE-A with CI file system
                        : 12792B/C or 12040B/C MUX required
Language(s).....       : FTN7K, MACRO
Keywords.....          : 1. EDITOR
External Support Req'd.: None
If Re-submission, Reason.:
Contributor's Name.....: Inge Vabekk
Company.....           :
Street.....            : Hamangskogen 108
City.....              : N-1300 SANDVIKA
State.....             :
Country.....           : NORWAY
Zip Code.....          :
Phone Number.....     : 47 / 2 / 54 63 96 (private)
Telex.....             :

```



Contribution Abstract.....: TED is a completely interactive text editor program. It operates in screen mode, but without having to read back from the screen.

TED is perfect for editing plain text, but has some useful functions for editing program sources as well.

Some features are:

1. Several files can be edited in one run. If program FMASK is available you can use wildcard characters in filenames.
2. Line length up to 160 characters with horizontal scroll (requires 2626x terminal)
3. Uses the terminal's editing keys for functions like:
 - move cursor up/down, left/right
 - roll up/down, left/right (2626 only)
 - go "home"/"home down"
 - go to previous/next page
 - insert/delete lines, characters
 - restore deleted lines, characters
4. Uses control characters for functions like:
 - break a line in two
 - joining lines
 - move words up/down
 - delete/restore words
 - yank lines into a special buffer
 - duplicate a line
 - exchange lines, words
 - setting margins
 - casefold characters
 - select primary/secondary character sets
 - enter command mode
5. Uses softkeys for functions like:
 - get help
 - start/end display enhancement
 - go to a line (prompted for line number)
 - list lines (prompted for parameters)
 - justify lines (4 modes available)
 - set various flags (in command mode)
6. All softkeys are reset to their original contents when the TED session is done.

And there's more!

There is extensive protection against program or system crashes; no more will be lost than the last edits in the current line. Any previously deleted lines may also be restored after a crash.

The program supports 8-bit character sets with the 23xx terminals.

TED requires (or places) no special symbols in the file to be edited. Thus the program can be used to edit program sources as well as files for text formatting programs (WOLF, TEXED, TYPER etc.).

```

Additional Documentation....: To link TED:
: Select the directory containing the
: submitted files.
: CI> TR, TED.CMD
: Wait till 4 programs are linked.
: (TED, SED, FMASK, LS)
: TED will be run, specifying the
: file TESTFILE.
: To get a copy of manual:
: WOLF /TED/TED.MNL <printer>
: Note:
: No sources are supplied for TED,
: because of plans for restructuring
: the program (faster start/end and
: other enhancements).
: When this has been done I'll supply
: them to the following CSL/1000 revision.
: Read the file /TED/TEDPLANS.DOC !

```

ROBRES

SYSTEM ACCOUNTING & USER MONITORING UTILITIES

L065

```

Contribution Name.....: ROBRES
Title.....             : System accounting & user monitoring utilities
File Names.....        : 00. Rename Transfer File (Interex-supplied)
: 01. ROBRES.SBMT
: 02. RM101.FTN - Disc/Cpu monitor program
: 03. RM101.REL -
: 04. RMREAD.FTN - Reports data collected by
: 05. RMREAD.REL - Rm101 program
: 06. DIRECTORYSIZE.FTN - Reports directory
: 07. DIRECTORYSIZE.REL - ownership & sizes

```

```

:08. PLOTBITMAP.FTN - Plots Lu BitMap
to calcomp plotter

:09. BUILDENCRYPT.CMD - NBS data
:10. MDES.MAC - encryption
:11. MDES.REL - routines
:12. ENCODE.FTN - Fortran drivers
:13. ENCODE.REL - for above
:14. DECODE.FTN -
:15. DECODE.REL -
:16. BUILDKEY.FTN -
:17. BUILDKEY.REL -

Operating System(s).....: RTE A
Language(s).....: Ftn7x Macro
Keywords.....: 1. ENCRYPTION
: 2. ACCOUNTING
: 3. DISC

External Support Req'd...: Calcomp plotter/libraries for PLOTBITMAP!
If Re-submission, Reason.:

Contributor's Name.....: J Daley
Company.....: Robertson Research International
Street.....: Ty'n'y'Coed
City.....: Llandudno
State.....: Gwynedd
Country.....: Wales
Zip Code.....: LL30 1SA
Phone Number...: (0492) 81811
Telex.....:

Contribution Abstract.....:
These are some routines thrown together to help in deciding user charges,
depending on HP Cpu/Logon times and calculated disc usage.

DES encryption routines were originally developed at DQA(TS) and are
simple examples of use of the American NBS Data Encryption Standard in
software - these are included for general interest!

Additional Documentation....:
System programs can be simply linked - see source for run information
DES routines built with command file - . . . . .

```

LIST

L066

LINE NUMBERED LIST UTILITY

```

Contribution Name.....: LIST
Title.....: Line numbered list utility
File Names.....: 00. Rename transfer file
: 01. LIST - Submission file
: 02. LIST - Source code
: 03. LIST - Relocatable code
: 04. LIST - Help file

Operating System(s).....: RTE-6/VM, RTE-A, RTE-A/VC+
Language(s).....: Fortran 77
Keywords.....: 1. List

External Support Req'd...:
If Re-submission, Reason.:

Contributor's Name.....: Jack D. Ferguson & Theodore B. Massey
Company.....: AMP, Inc.
Street.....: P.O. Box 55
: Mail Pt. 79-39
City.....: Winston-Salem
State.....: N.C.
Country.....: U.S.A.
Zip Code.....: 27102
Phone Number...: (919) 727-5819
Telex.....:

Contribution Abstract.....:
This program will provide a line numbered file listing of a file
on a CI volume. It will
1. Recognize and execute the SPAGE directive as used in FTN77
2. Provide a page numbered header line with date, time and
file name.

The file HLIST is meant to be placed in the /HELP directory.

Limitations :
1. Lu 6 is the only recognized output LU
2. Line length's greater than 122 characters will be trunc-
ated
3. File names exceeding 39 characters will not be printed.

Additional Documentation....: See the file HLIST.

```

WDD

L067

CHANGE DIRECTORIES VIA FUNCTION KEYS

```

Contribution Name.....: WDD
Title.....: Change directories via function keys
File Names.....: 00. Rename transfer file
: 01. wdd.sgmt - submission file
: 02. wdd.c - source
: 03. wdd.rel - relocatable
: 04. wdd.lod - LINK file

Operating System(s).....: RTE-6VM
Language(s).....: HP/C
Keywords.....: 1. CI
: 2. DIRECTORY
: 3. SOFTKEYS

External Support Req'd...: HP/C Libraries Rev. 2533 Cont. No. J031
If Re-submission, Reason.:

Contributor's Name.....: James B. Sheffler
Company.....: General Dynamics
Street.....:
: P.O. Box 2507
City.....: Pomona
State.....: California
Country.....: USA
Zip Code.....: 91769
Phone Number...: (714) 598-0848
Telex.....:

```

Contribution Abstract.....:
This program works similar to the WD command to the extent of setting a users working directory. In addition, subdirectories of the working directory are displayed and function keys set to allow a user to easily move through a directory tree by simply using the function keys.

Additional Documentation.....:

The program limits the number of subdirectories in a working directory to 21 (others being ignored) and requires a session variable to be set to the users log-on directory in order to re climb the directory tree. This variable is named HOME and should be set in a users WELCOM file. For example,

SET HOME = /USR

WDD usage is as follows:

WDD [directory name] [option]

directory name - The name of the new working directory. May be a subdirectory

option = 0 - subdirectories 1-7 displayed
= 1 - subdirectories 8-14 displayed
= 2 - subdirectories 15-21 displayed

If WDD is run without any parameters, the display is refreshed using the current working directory.

The f8 function key is either used to return back to the HOME directory or used to display more subdirectories within the current working directory.

STIME

L068

SYNCHRONIZE SYSTEM TIME VIA DS

Contribution Name.....: STIME
Title.....: Synchronize System Time via DS
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. 'STIME Submission File
 : 02. &STIME Source
 : 03. *STIME Compile Transfer File
 : 04. xSTIME Relocatable
 : 05. #STIME Loadr File
 : 06. &TMLIB Time Library Source
 : 07. \$TMLIB Time Library Relocatable
 : 08. &INIT Init DS Source
 : 09. XINIT Init DS Relocatable
 : 10. *INIT Init DS Compile Transfer File
 : 11. #INIT Init DS Loadr File
Operating System(s).....: RTE-6/VM
Language(s).....: Fortran 77, Macro
Keywords.....: 1. BOOT-UP
 : 2. DS
 : 3. TIME
External Support Req'd...: DS/1000-IV
If Re-submission, Reason.:
Contributor's Name.....: Jeffrey Sweet
Company.....: Air Force Avionics Lab
Street.....: AFWAL/AAARI-3
City.....: Wright-Patterson, AFB
State.....: Ohio
Country.....: USA
Zip Code.....: 45433
Phone Number...: (513) 255-6361
Telex.....:
Contribution Abstract.....:
The two system utilizes STIME and INIT are very useful in large DS/1000-IV HP 1000 networks.

STIME will synchronize all DS nodes to a master node. This will insure that all system clocks are set the same, and stay the same. This is very useful in remote data collection environments. The master node may set its time via an external reference clock. If a program is on the time list with an absolute scheduled time, and the time is reset to past this time, the program will not be executed. STIME is very careful not to let this happen. The time is adjusted in small intervals that will permit scheduled programs to execute without being passed over.

INIT will initialize a DS node. The program contains several tables with all of the DS initialization information for the network. The program will adjust the initialization information based on the passed node number.

STIME and INIT should both be run the the WELCOM file.

Additional Documentation.....:

TERM

L069

TERMINAL SELF-TEST AND STRAP SETTING

Contribution Name.....: TERM
Title.....: Terminal self-test and strap setting
File Names.....: 00. Rename Transfer File
 : 01. 'TERM
 : 02. &TERM
 : 03. XTERM
Operating System(s).....: RTE-6/VM and others?
Language(s).....: FORTRAN 77
Keywords.....: 1. Terminal
 : 2. Test
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 causes the terminal to run its self-test. Strap settings and internal configuration are reported. This program has been tested on 2621, 2648, and 239X terminals.
 Additional Documentation....: Use Link or Loadr. This program uses no libraries.

 TRIMF

L070

 REMOVE EXTENTS FROM CI/FMGR FILES

Contribution Name.....: TRIMF
 Title.....: Remove extents from CI/FMGR files
 File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. TRIMF.SBMT submission file
 :02. TRIMF.CMD installation command file
 :03. TRIMF.LOD
 :04. TRIMF.FTN
 :05. TRIMF.COM common include file
 :06. TRIMF.REL
 :07. STRNG.MAC string routines
 :08. STRNG.LIB
 :09. MASKSECURITY.FTN
 :10. MASKSECURITY.REL
 :11. TRIMF.WLF source for documentation
 :12. TRIMF.HELP documentation for /help/
 Operating System(s).....: RTE-6, RTE-A
 Language(s).....: FTN7X, MACRO
 Keywords.....: 1. CI
 : 2. Extents
 External Support Req'd...:
 If Re-submission, Reason.: Bug fixes
 Contributor's Name.....: Jim Lewis
 Company.....: Reynolds Metals Co.
 Street.....: 4th & Canal Sts.
 City.....: Richmond
 State.....: Virginia
 Country.....: USA
 Zip Code.....: 23219
 Phone Number...: (804)788-7410
 Telex.....:
 Contribution Abstract.....: This utility will go through directories and will recover unused space from type 3,4,5 files. It removes extents on files that have them. Trimf also works on FMGR files, but is slow scanning FMGR directories. The command file TRIMF.CMD will link the program, put it on ::programs and put the help file on ::help. The mini-library of string routines may be of use. Check the source.
 Additional Documentation....: See TRIMF.HELP and source code.

 TYPE

L071

 PRINT FILES ON SERIAL PRINTERS

Contribution Name.....: type
 Title.....: Print files on serial printers
 File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. type.sgmt
 :02. type.ftn
 :03. type.com
 :04. type.rel
 :05. typez.ftn
 :06. typez.com
 :07. typez.rel
 :08. mux_6.ftn Mux functions
 :09. mux_6.rel
 :10. mux_a.ftn
 :11. mux_a.rel
 :12. type.cmd Installation command file
 :13. type.lod
 :14. typez.lod
 :15. type.wlf help file source
 :16. type.help help file document
 :17. strng.lib String routines
 Operating System(s).....: RTE-6, RTE-A
 Language(s).....: FTN7X
 Keywords.....: 1. list
 External Support Req'd...:
 If Re-submission, Reason.:
 Contributor's Name.....: Jim Lewis
 Company.....: Reynolds Metals Co.
 Street.....: 4th & Canal Sts.
 City.....: Richmond
 State.....: Virginia
 Country.....: USA
 Zip Code.....: 23219
 Phone Number...: (804)788-7410
 Telex.....:
 Contribution Abstract.....: TYPE is a pair of programs that implement a subset of PRINT commands. The main difference is that TYPE/TYPEZ will print a file with standard printer carriage control to a serial printer connected to a mux port and configured as a type 0 device. TYPE will also print to printers attached to port 2 of some terminals (2623,2393). Full carriage control features are supported (1, 0, * in column 1). WOLF output files, and other files without printer carriage control, are also supported with a carriage control suppression feature similar to PRINT. Some special printer features are included for 2631 type printers, ThinkJets, Okidata 182, and NEC. There are several "warts" on the program TYPEZ that will need alteration for your installation. Look at "ifmux" (mux_6.ftn), line 471 in "do_lu" (typez.ftn), line 820 in "ext_printer" (typez.ftn), and change accordingly.
 Additional Documentation....: See the help file for usage notes.

 TERMINAL AND STRING-HANDLING LIBRARY

```

Contribution Name.....: JIMLB
Title.....: Terminal and String-Handling Library
File Names.....:00. Rename Transfer File
:01. jimlb.sgmt
:02. jimlb.cmd
:03. jimlb.mrg
:04. jimlb.lib          lindex'd lib
                    ftn7x source code
:05. elapsed.ftn
:06. hp2623.ftn
:07. hp2623.com
:08. menu.ftn          for the fainthearted
                    macro source code
:09. comparewords.mac
:10. equ_parms.mac
:11. gettime.mac
:12. movewords.mac    documentation sources
:13. appendstring.wlf
:14. ask.wlf
:15. clearstring.wlf
:16. clear_dsply.wlf
:17. clear_line.wlf
:18. clear_lines.wlf
:19. clear_screen.wlf
:20. clear_user_keys.wlf
:21. comparestring.wlf
:22. comparewords.wlf
:23. copystring.wlf
:24. copystringr.wlf
:25. decimaltoreal.wlf
:26. display_user_key.wlf
:27. dump_screenbuf.wlf
:28. elapsed.wlf
:29. fillstring.wlf
:30. function_key.wlf
:31. gettime.wlf
:32. get_char.wlf
:33. get_integer.wlf
:34. get_regs.wlf
:35. home_down.wlf
:36. home_up.wlf
:37. init_menu.wlf
:38. init_screenbuf.wlf
:39. jimlb.wlf        main doc source.
:40. leftjustify.wlf
:41. memory_lock_off.wlf
:42. memory_lock_on.wlf
:43. menu.wlf
:44. misc.wlf
:45. movefromema.wlf
:46. movetoema.wlf
:47. nullstoblanks.wlf
:48. position_cursor.wlf
:49. prompt.wlf
:50. read_status.wlf
:51. read_string.wlf
:52. readodecimal.wlf
:53. scanforbyte.wlf
:54. set_screen_size.wlf
:55. set_terminal_lu.wlf
:56. softkey.wlf
:57. splitcommand.wlf
:58. string.wlf
:59. stringimread.wlf
:60. stringimwrite.wlf
:61. stringxluex.wlf
:62. stringxrelo.wlf
:63. term.wlf
:64. terminal_write.wlf
:65. timeout.wlf
:66. trimstring.wlf
:67. typestring.wlf
:68. type_ahead_off.wlf
:69. type_ahead_on.wlf
:70. write_line.wlf
:71. write_scroll.wlf
:72. write_string.wlf
:73. yesno.wlf      document output (2631 printable)
:74. jimlb.doc
:75. strng.mac
Operating System(s).....: rte6, rtea
Language(s).....: ftn7x, macro
Keywords.....: 1. library
: 2. terminal
: 3. strings

External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Jim Lewis
Company.....: Reynolds Metals Co.
Street.....: 4th & Canal Sts.
City.....: Richmond
State.....: Virginia
Country.....: USA
Zip Code.....: 23219
Phone Number...: (804)788-7410
Telex.....:

```

Contribution Abstract.....:
 This library contains routines for doing various terminal functions. These functions include things like defining softkeys, menu processing, cursor positioning, video enhancements, etc. The library also contains some string routines used in other contributions. There are also some miscellaneous routines that may or may not be useful to you. If you are going to use "menu" in anything important, please use the replacement version (menu.ftn).

Additional Documentation....: See the documentation file.


```

Contribution Name.....: COLOR_GRAPH
Title.....: Color Graphics Pictures
File Names.....: 00. Rename transfer file.
                  01. COLOR_GRAPH.SBMT - Submission file
                  02. COLOR_GRAPH.FTN - FORTRAN Source
                  03. COLOR_GRAPH.REL - Relocatable
                  04. COLOR_GRAPH.LOD - LINK Command

Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN4X
Keywords.....: 1. Graphics
                2. Demo

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) 594-7351
Telex.....:

Contribution Abstract.....:
This program will output nice color pictures to a HP 2627A or 2393A Graphics
terminals. At the present there are 5 sets of pictures. Random numbers are
used to generate some of the pictures so no two runs are alike. An A-900
using a terminal running at 19.2k baud works best.

Additional Documentation.....:

```

```

Contribution Name.....: GAMES
Title.....: BASIC/1000D Games
File Names.....: 00. Rename transfer file.
                  01. GAMES.SBMT - Submission file
                  02. *GAMES - FMGR command file
                  03. ABAGEL - Guess a three letter word
                  04. ABASE - Play a number base game
                  05. AMAZE - Draw a maze
                  06. BAGLES - Guess a three digit number
                  07. BASE - Play in other base
                  08. BATNUM - Battle of number game
                  09. BIORTM - Outputs your Biorythm
                  10. BLACKJ - The game of Black Jack
                  11. BLUFF - Numbers bluffing game
                  12. BUTTON - Who's got the button
                  13. CALNDR - Julian calendar generator
                  14. CASINO - Betting game
                  15. CHASE - Chase the rabbit
                  16. CHEKRS - Game of checkers
                  17. CHOMP - Bite the cookie
                  18. CIVIL - Civil War game
                  19. CIVLW3 - Another Civil War game
                  20. CLOCKS - Guess the time
                  21. CRASH - Land your space capsule
                  22. DANGLE - The dangling string
                  23. DRAG - Who's the best drag racer
                  24. FACTRL - Compute factorials
                  25. FBALL - Texas A&M football
                  26. FOOTBL - Hewlett-Packard football
                  27. GENIUS - Test of Genius
                  28. GOLF - PGA handicap golf
                  29. GOMOKU - Game of five-in-a-row
                  30. GRNPRX - Race in the Grand Prix
                  31. HAMURA - Be the king of Hamarabi
                  32. HANGFL - Create hangman file
                  33. HANGMN - Get yourself hanged
                  34. HIGHLO - Play numbers with computer
                  35. HOCKEY - Hockey game
                  36. HORSE - Going to the horse races
                  37. HURKLE - Go hunt them Hurkles
                  38. JULIAN - Generate JULIAN calendar
                  39. KENO - Keno, lose it all style
                  40. KING - Be the king of Setats Detinu
                  41. KING1 - Be the king of Euphoria
                  42. KING3 - Be the king of Setats
                  43. LANDR - Rocket lander
                  44. LETTERS - Outputs large letters
                  45. LETTER - Guess some letters
                  46. LIFE - Play with a living cell
                  47. LOANS - Find out what you owe
                  48. LUNAR - Moon landing simulation
                  49. LUNAR2 - Another version of LEM
                  50. MADLIB - Madness in add libing
                  51. MANDAL - Draw some pretty designs
                  52. MAZE1 - Make a maze, version 1
                  53. MAZE2 - Make a maze, version 2
                  54. MAZE3 - Make a maze, version 3
                  55. MTCH23 - Pick up 23 matches
                  56. MUGWMP - Hunt a Mugwhump
                  57. NIM - Game of Nim
                  58. PILE - Some type of stack game
                  59. POLICY - Decide international policy
                  60. POLUT - A pollution control study
                  61. PUZZLE - Long division problems
                  62. QUBIC - Three-D tic-tac-toe
                  63. RACE - Car racing
                  64. REVERS - Reverse the numbered string
                  65. ROULET - Play the roulette wheel
                  66. ROVER - Guide the moving robot
                  67. SALVO - Fire salvos at computer
                  68. SNARK - Hunt the snark
                  69. STAR - Another Startrek game
                  70. STARS - Guess the number
                  71. STOCKS - Pay the stock market

```

```

: 72. TAXMAN - Get that Taxman
: 73. TICKER - Label paper tape
: 74. TICTAC - Good old Tic-tac-toe
: 75. TICTOE - Another Tic-tac_toe
: 76. TRADER - Space trader
: 77. TRADES - Another star trader
: 78. TREK - Another Startrek
: 79. TREK1 - Startrek version 1
: 80. TREK6 - Startrek version 6
: 81. TREK8 - Startrek version 8
: 82. VALENT - Create a valentine
: 83. WIN - Number game
: 84. WUMPUS - Watch out for the Wumpus
: 85. ZOT - Zot some stars
: 86. *COMMANDS - BASIC command listing
: 87. STAR_INST - Startrek instructions
Operating System(s).....: RTE-4B, RTE-6/VM
Language(s).....: BASIC/1000D
Keywords.....: 1. Games
: 2. BASIC
External Support Req'd...: FMPLB.LIB for new file system
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) 594-7351
Telex.....:
Contribution Abstract.....:
The above listed programs all run under BASIC/1000D or BASIC/1000L. If
the new CI file system is to be used, load BASIC using $FMPLB. Set the
working directory to /GAMES/BASIC and just run the program from BASIC
without specifying a cartridge. For old RTE-4B systems, use the BASIC
as it comes from HP and load from FMGR cartridges. Not all of the
programs have been tested. If you have a fix, send it in for updating.
Some of these programs are very old. Most of them came from the old
HP 2000F Timeshare System. If you convert any of these to work with
the new BASIC/1000C compiler, please send them in.
Additional Documentation....:
See program listings and *COMMANDS files.

```

TERMINAL

L075

HP 264X TERMINAL GAMES

```

Contribution Name.....: TERMINAL
Title.....: HP 264x Terminal Games
File Names.....: 00. Rename transfer file.
: 01. TERMINAL.SBMT Submission file
: 02. CAT MOUSE.ABS
: 03. DRIVER.ABS
: 04. HACMAN.ABS
: 05. INVADERS.ABS
: 06. MAZED.ABS
: 07. PONG.ABS
: 08. SHOOT.ABS
: 09. SPACE.ABS
: 10. INFORMATION
Operating System(s).....: None
Language(s).....: Terminal Assembly
Keywords.....: 1. Terminal
: 2. Games
External Support Req'd...: 8 to 12k terminal memory
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) 594-7351
Telex.....:
Contribution Abstract.....:
This set of files can be downloaded into a HP 2645 terminal and be executed
there. Some of them need lots of memory or other special strapping. Just
do a copy command from the file to your terminal Lu and follow the
instruction given.
Additional Documentation....:

```

CHESS

L076

REAL TIME CHESS GAME

```

Contribution Name.....: CHESS
Title.....: Real Time Chess Game
File Names.....: 00. Rename transfer file.
: 01. CHESS.SBMT Submission file
: 02. CHESS.FTN - Main program source
: 03. TRY.FTN - Try a move
: 04. TYPEB.FTN - Type board
: 05. BUMP.FTN - Bump tree pointer
: 06. PUSHM.FTN - Push move on tree
: 07. CHECK.FTN - Test if castling allowed
: 08. CAST.FTN - Stack castling moves
: 09. CASTL.FTN - Castle processing
: 10. KINGN.FTN - King-Night processing
: 11. BPRKO.FTN - Bishop, Rook, Queen processing
: 12. PAWNC.FTN - Pawn capture
: 13. PROMO.FTN - Promote pawn
: 14. PLACE.FTN - Place move on tree
: 15. INCHK.FTN - In check test
: 16. FIND.FTN - Find opposing piece
: 17. CENCN.FTN - Center control bonus
: 18. SORT.FTN - Sort moves
: 19. MDGAM.FTN - Bonus points for midgame
: 20. MOBIL.FTN - Test mobility

```

```

: 21. KINGC.FTN - King in check
: 22. OPENB.FTN - Bonus points for opening
: 23. MDBON.FTN - Assign midgame bonus points
: 24. POSIT.FTN - Positional analysis
: 25. BKUP1.FTN - Backup alpha value
: 26. BKUP2.FTN - Backup beta value
: 27. MOVES.FTN - Generate moves
: 28. MOVER.MAC - Move to or from
: 29. ISWR.MAC - Read switch register
: 30. BOARD.FTN - Get piece from board
: 31. DUMPN.FTN - Dump node
: 32. CHES2.MAC - Save/Restore board
: 33. ECUTE.MAC - Execute move
: 34. SBITF.MAC - Set bit
: 35. CBITF.MAC - Clear bit
: 36. GLOBL.FTN - Global data
: 37. TIMER.FTN - Second timer
: 38. GAME.REL - Relocatables
: 39. CHES.LOD - LINK command file
: 40. CHES.CMD - Compile file
Operating System(s)..... RTE-4B RTE-6/VM
Language(s)..... FORTRAN, ASSEMBLER
Keywords..... 1. Games
External Support Req'd... Switch register
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) 594-7351
Telex.....

```

Contribution Abstract.....
This chess program 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 an endgame analysis section and lots of other improvements, but this program one method of approaching the problem.

Additional Documentation.....

Run the transfer file CHES.CMD to compile everything or LINK,GAME.REL if you don't want to recompile. Watch out for switch register settings which will cause a large amount of data to dumped to the lineprinter.

DUNGEON

L077

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

```

```

Operating System(s)..... RTE-A VC+
Language(s)..... FTN77
Keywords..... 1. Games
External Support Req'd... CDS & VC+
If Re-submission, Reason: Converted to A-Series
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) 594-7351
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 during the game but uses lots of memory (which is cheap nowadays). 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.

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 lots of things that mortals cannot do. HELP and INFO are also useful commands.

ORCAM

L078

INVERSE RELOCATABLE ASSEMBLER

```

Contribution Name..... ORCAM
Title..... Inverse Relocatable Assembler
File Names..... 00. Rename transfer file.
: 01. ORCAM.SBMT - Submission file
: 02. ORCAM.FTN - Source file
: 03. ORCAM.REL - Relocatable

```

```

: 04. OLD RECORDS.FTN
: 05. OLD RECORDS.REL
: 06. NEW RECORDS.FTN
: 07. NEW RECORDS.REL
: 08. DBL SUBS.FTN
: 09. DBL SUBS.REL
: 10. UTIL SUBS.FTN
: 11. UTIL SUBS.REL
: 12. IO SUBS.FTN
: 13. IO SUBS.REL
: 14. FORMAT TIME.MAC
: 15. FORMAT TIME.REL
: 16. ABSOL.MAC - Assembly source
: 17. ABSOL.REL - Relocatable
: 18. ORCAM.LOD - LINK command
: 19. ORCAM.TXT - Program Notes
: 20. ORCAM.COM - Include file
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN77, MACRO
Keywords.....: 1. Inverse
: 2. Assembler
External Support Req'd...: None
If Re-submission, Reason.: Major rewrite
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) 594-7351
Telex.....:
Contribution Abstract.....:
None of the inverse assemblers have worked very well and none of them
handled CDS properly. I took the 2533 contribution by John Evans and gave
it a major overhaul. It now handles CDS, FORTRAN II, IV, 77, ALGOL, PASCAL,
C and MACRO code properly. Files can also have DEBUG, INDXR and LINDX
records without problems. ORCAM can also handle large files (i.e. 6000
lines of FORTRAN in a single subroutine). It uses EMA for storage and
runs about as fast as FORTRAN 77 for small files. Symbolic debug records
slows it down with all the extra table searching. You can have multiple
modules in the same file but you should not mix old and new style
relocatables together. The list output looks just like the output from
the MACRO assembler. The source code generated can be used by MACRO but
not by ASMB. A little editing may be needed to assemble without errors.
For example FORTRAN 77 puts slashes around the block common names which
MACRO will not accept. Also MSEG gets pulled out of ALLOCATE records.
See ORCAM.TXT for more details.

```

Additional Documentation....:

Run the program as follows:

```
CI> ORCAM <Relocatable> <List lu> <Source output> <Flags>
```

```

where flags are: T gives ENT/EXT tables
                  I gives assembler, I for indirects (default)
                  M gives MACRO @ for indirects
                  D uses DEBUG symbol records (ignored if not set)
                  C for CDS relocatables (set automatically)
                  A for A series machine (for base page references)

```

```
Example: CI> ORCAM,ORCAM.REL,1,TEST.MAC,TID
```

ASUBS&FMPLB

L079

MISC LIBRARIES (SAME AS REL 2533 J024/J044) EXCEPT NO SOURCES

```

Contribution Name.....: ASUBS&FMPLB
Title.....: Misc Libraries (same as Rel 2533 J024/J044) except no source
File Names.....: 00. Rename transfer file.
: 01. ASUBS&FMPLB.SBMT Submission file
: 02. ASUBS.LIB - Assembly subroutines
: 03. FMPLB.LIB - FMP emulation routines
Operating System(s).....: RTE-4B, RTE-6/VM, RTE-A
Language(s).....: FTN4X, ASMB
Keywords.....: 1. Library
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) 594-7351
Telex.....:
Contribution Abstract.....:
These libraries are used by a number of other contributions. The sources
have been submitted on past tapes (Rev 2533 contributions J024 and J044)
so only the LINDXed versions are included here. The FMPLB can be loaded with
BASIC/1000 so it can use the new CI file system.

```

Additional Documentation....:

MMM

MYSTERY MANSION (REVISION 16)

L080

```

Contribution Name.....: MMM
Title.....: Mystery Mansion (Revision 16)
File Names.....: 00. Rename transfer file.
: 01. MMM.SBMT - Submission file
: 02. MMM.FTN - FORTRAN Source
: 03. MMM.REL - Relocatable
: 04. SEGMM.MAC - Segment loader
: 05. SEGMM.REL - Relocatable
: 06. MMM.LOD - LINK Commands
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN77, MACRO
Keywords.....: 1. Games

```

External Support Req'd...:
 If Re-submission, Reason.: Lower case letters, LINK compatible
 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) 594-7351
 Telex.....:
 Contribution Abstract.....:
 This is revision 16 of the Mystery Mansion game. SEGLD is used to load the segments so LINK can be used. To play the game just run MMM. Lower case lettering is used throughout and few spelling corrections were made. Use two ASCII letters for cartridge when suspending or restoring game. See if you can find out who the killer is, how they did it and where. This game was written by Bill Wolpert. The code is segmented and very hard to port over to another system. But if you convert it to use CDS, then please resubmit it.

Additional Documentation....:
 See source code listing for use of additional parameters on run string.

CMD

L081

 GENERATE MS-DOS FILE-TRANSFER COMMANDS

Contribution Name.....: CMD
 Title.....: Generate MS-DOS File-Transfer Commands
 File Names.....: 00. Rename transfer file.
 : 01. CMD.SBMT Submission file
 : 02. CMD.FTN - FORTRAN source
 : 03. CMD.REL - Relocatable
 : 04. CMD.LOD - LINK command
 Operating System(s).....: RTE-6/VM & RTE-A
 Language(s).....: FTN7x
 Keywords.....: 1. IBM
 : 2. PC
 : 3. File-transfer
 External Support Req'd...: 8 Channel Mux and PC2622
 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) 594-7351
 Telex.....:
 Contribution Abstract.....:
 This program generates a list of receive commands for the PC 2622 file transfer program by Walker, Richer and Quinn, Inc. This makes it easy to transfer a group of files from an RTE system to an IBM PC or Vectra. Run CMD with a file mask specified and all the commands for transferring those files found will be generated. You can edit this command and then download it to the PC's disc. Then you just enter the command file name to run it on the PC. Run CMD as follows:
 CI> CMD,<File mask>,<Output command file>

Additional Documentation....:
 See PC 2622 documentation on run command files on the PC.

COLOR_DEMO

L082

 2397A COLOR GRAPHICS DEMOS

Contribution Name.....: COLOR_DEMO
 Title.....: 2397A Color Graphics Demos
 File Names.....: 00. Rename transfer file.
 : 01. COLOR_DEMO.SBMT - Submission file
 : 02. DART.FTN - Dart board
 : 03. DART.REL - Relocatable
 : 04. DART.LOD - LINK command
 : 05. MATH.FTN - Math curves
 : 06. MATH.REL - Relocatable
 : 07. MATH.LOD - LINK command
 : 08. PONG.FTN - Pong display
 : 09. PONG.REL - Relocatable
 : 10. PONG.LOD - LINK command
 : 11. SPACE.FTN - 2001 demo
 : 12. SPACE.REL - Relocatable
 : 13. SPACE.LOD - LINK command
 : 14. SETUP.FTN - Setup routine
 : 15. SETUP.REL - Relocatable
 : 16. CIRCLE.FTN - Draw circle
 : 17. CIRCLE.REL - Relocatable
 : 18. LINE.FTN - Draw line
 : 19. LINE.REL - Relocatable
 Operating System(s).....: RTE-6/VM, RTE-A
 Language(s).....: FTN4X, MACRO
 Keywords.....: 1. Graphics
 : 2. Demo
 External Support Req'd...: ASUBS.LIB library
 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) 594-7351
 Telex.....:
 Contribution Abstract.....:
 This set of programs is used for demos on a color 2397A Graphics Terminal. MATH draws some nice functions you don't see too often. DART makes use of the polygonal area fill if parameter 2 is non zero. PONG and SPACE are very slow and were designed to run with 92100B TV graphics display system. All programs use escape sequences for speed instead of DGL or some other

library so nothing is very portable. I think these may also work on a HP 2627A Graphics Terminal but they have not been tested.

Additional Documentation....: See listings.

FTNXREF

FORTRAN 77 SYMBOL CROSS REFERENCE

L083

Contribution Name.....: FTNXREF
Title.....: FORTRAN 77 Symbol Cross Reference
File Names.....: 00. Rename transfer file.
 : 01. FTNXREF.SBMT - Submission file.
 : 02. FTNXREF.FTN - FTN7x Source.
 : 03. FTNXREF.REL - Relocatable.
 : 04. FTNXREF.LOD - LINK command.
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Cross-reference
 : 2. Fortran

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) 594-7351
Telex.....:

Contribution Abstract.....:
This program is helpful in telling you every place a variable is used in FORTRAN 77 programs. It gives the symbol type, usage and location. The program uses the FTN7X compiler to create cross reference tables which are sorted together in a big linked list. For each symbol, a list of modules and file names are printed. The symbol is described by type (integer, real, etc.), usage (variable, array, function etc.), and location (local, common, EMA etc.). Symbols may appear several times if any of these parameters are different. This helps identify problems of using a variable as integer in one module and as a real in another. The program cannot tell you if a variable in an equivalence statement is used in the code if it only appears in non-executable code. Common labels that appear only in \$EMA statements show up differently from modules where a labeled common statement appears. For block common modules, the last labeled common block is used for the module name. This appears to be a feature of FTN7X. A large program (10000 lines) took about an hour to run under RTE-6/VM printed about 500 pages of cross reference tables. You can increase the table sizes by changing the parameter statements. This program really helps in figuring out a new program that's been ported from another machine. You should also use the FTN7X crossref listings in conjunction with this program. Run the program as follows:

CI> FTNXREF,<Command file>,<List lu>

The command file is a list of FORTRAN files and list lu is the output device. Both default to Lu 1.

Additional Documentation....:

Possible enhancements would be to check the type and number of parameters in subroutine calls but this would require a parser. The names of the labeled common blocks could be added to the variables used in it but there was no room on the line and it would take some messy pointers. Also formal parameters of internal functions are ignored.

INVOKE

INVOKE A PROGRAM WITH FILE MASK

L084

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...:
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) 594-7351
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

Additional Documentation....:

EMULATE MS-DOS COMMANDS

```

Contribution Name.....: MSDOS
Title.....: Emulate MS-DOS Commands
File Names.....: 00. Rename transfer file.
                  01. MSDOS.SBMT - Submission file
                  02. DIR.FTN
                  03. DIR.REL
                  04. DIR.LOD
                  05. CLS.FTN
                  06. CLS.REL
                  07. CLS.LOD
                  08. CHDIR.CMD
                  09. COMP.CMD
                  10. COPY.CMD
                  11. DEL.CMD
                  12. MKDIR.CMD
                  13. PROMPT.CMD
                  14. REN.CMD
                  15. TYPE.CMD
                  16. INSTALL.CMD
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN7X
Keywords.....: 1. IBM
                2. PC
                3. Emulator

External Support Req'd...:
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) 594-7351
Telex.....:

Contribution Abstract.....:
These programs and command files allow you to use MS DOS syntax for
common operations. It helps reduce the number of commands you need
to remember when going from system to system. You could also put
batch commands in MS DOS for RTE emulation. In DIR the wild card
characters are changed for you (ie. * to @, ? to -). There are no
volumes in RTE and directory paths must use the / because CI uses
the \.

Additional Documentation....:
Transfer to INSTALL.CMD to load the programs.

```

FIX UP ODD BYTE RECORDS

```

Contribution Name.....: ODDBYTE
Title.....: Fix up Odd Byte Records
File Names.....: 00. Rename transfer file.
                  01. ODD BYTE.SBMT - Submission file
                  02. ODD BYTE.FTN - Source file
                  03. ODD BYTE.REL - Relocatable
                  04. ODD BYTE.LOD - LINK command
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN7x
Keywords.....: 1. FMGR
                2. Transportable
                3. CI

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) 594-7351
Telex.....:

Contribution Abstract.....:
This program will take type 3 and 4 source files and convert any records
with an odd number of bytes to an even number of blanks. A single blank
is appended from the end of a line with an odd byte count. This program
is useful for porting files back to older RTE systems. The file conversion
is done in place. Run the program as follows:

CI> Oddbyte,<Filemask>

Example: Oddbyte,@.:@:LABtec:4 fixes up all type 4 files in /LABTEC/

Additional Documentation....:

```

DISPLAY SESSION CONTROL BLOCK

```

Contribution Name.....: SCB
Title.....: Display Session Control Block
File Names.....: 00. Rename transfer file.
                  01. SCB.SBMT - Submission file
                  02. SCB.FTN - Source file
                  03. SCB.REL - Relocatable
                  04. ISCB.MAC - Subroutine
                  05. ISCB.REL - Relocatable
                  06. SCB.LOD - LINK command
Operating System(s).....: RTE-6/VM
Language(s).....: FTN77
Keywords.....: 1. Session
External Support Req'd...: ASUBS.LIB library

```

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) 594-7351
Telex.....:
Contribution Abstract.....:
This program displays detailed information about all active session control
blocks in a RTE-6/VM system. Just run SCB,<lu for output> to see how it
works. The program requires a revision of A.85 or later.
Additional Documentation....:

SD

L088

SWITCH WORKING DIRECTORY

Contribution Name.....: SD
Title.....: Switch Working Directory
File Names.....: 00. Rename transfer file.
: 01. SD.SBMT Submission file
: 02. SD.FTN - Source file
: 03. SD.REL - Relocatable
: 04. SD.LOD - LINK command
: 05. SD.HLP - HELP file
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Directory
: 2. CI
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) 594-7351
Telex.....:
Contribution Abstract.....:
This program is an enhanced version of the WD command. It allows you
to go up and down directory paths to change the working directory. It
is very flexible and checks for all kinds of errors. A few sample runs
follow:
SD ^^/path1/path2 moves up two paths and down two others
SD -1 path3 moves up one path and down another
SD ;.. moves up three paths
SD / moves to global directory
Another enhancement is being able to set your working directory to any
user defined search path (UDSP). Examples are:
SD 0 0 set WD to UDSP 0 [Home directory]
SD 3 2 set WD to UDSP 3, entry 2
SD 0 set no working directory
Additional Documentation....:

T2397

L089

TEST 2627/2397 GRAPHICS

Contribution Name.....: T2397
Title.....: Test 2627/2397 Graphics
File Names.....: 00. Rename transfer file.
: 01. T2397.SBMT Submission file
: 02. T2397.FTN - Source file
: 03. T2397.REL - Relocatable
: 04. T2397.LOD - LINK command
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN77
Keywords.....: 1. Graphics
: 2. Terminal
: 3. Diagnostic
External Support Req'd...:
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) 594-7351
Telex.....:
Contribution Abstract.....:
This program displays a pretty pattern on a HP 2627 or 2397 graphics
terminal in color. Run T2397 and watch it go. Use BR to terminate.
Additional Documentation....:

ADVENTURE

L090

ADVENTURE GAME, VERSION 2.1

Contribution Name.....: ADVENTURE
Title.....: Adventure Game, Version 2.1
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
Operating System(s)..... RTE-6/VM and RTE-A
Language(s)..... FTN77
Keywords..... 1. Games
External Support Req'd...
If Re-submission, Reason: Major rewrite
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) 594-7351
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. See MAGIC subroutine for details on becoming a wizard. There probably are a few bugs with all the changes made. If you find any, please send me a report. It takes much too long to test everything.

DI

LIST DIRECTORY TREE/ CHANGE WORKING DIRECTORY

L091

```

Contribution Name..... DI
Title..... List directory tree/ Change working directory
File Names..... 00. Rename Transfer File (Interex-supplied)
: 01. DI.sbmt (Submission File)
: 02. DI.ftn (FTN7X Source Code)
: 03. DI.doc (Documentation)
: 04. DI.lod (Link Command File)
Operating System(s)..... RTE-6/VM, RTE-A
Language(s)..... FTN77
Keywords..... 1. Directory
: 2. CI
External Support Req'd... $FMP6
If Re-submission, Reason: Original version of DI (CSL Rev. 2533 #J131)
was meant to run under RTE-A with CDS. The
program was modified to run under RTE-6 (or
RTE-A without CDS?) and enhanced slightly to
work with either 26XX or "dumb" terminals.

Contributor's Name..... John L. Lillibridge
Company..... University of Rhode Island /
Graduate School of Oceanography
Street..... S. Ferry Road
City..... Narragansett
State..... Rhode Island
Country..... USA
Zip Code..... 02882
Phone Number... (401)792-6520
Telex..... 258232

Contribution Abstract..... DI lists the entire directory tree under
the current global directory, or under the directory root
specified in the runstring. The current working directory is
indicated if it's within the display. For dumb terminals
only a display of the tree is printed. For 26XX terminals, the
cursor control keys are used to select the new working directory
by placing the cursor on the appropriate line. The program then
uses terminal screen reads to reconstruct the user's selection.
After the new working directory is set via FMP calls, program DL is
run to list the contents of the new directory. Auto-Linefeed must
be OFF at the terminal.

```

Additional Documentation....: "DI

MUX PORT TERMINAL OR MODEM LOGON WITH SECURITY

```

Contribution Name.....: DIALIN
Title.....: Mux port terminal or modem logon with security
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. dialin.sbmt
                  :02. dialin.pas
Operating System(s).....: RTEA a.84, a.85
Language(s).....: Pascal
Keywords.....: 1. security
                : 2. modem
                : 3. multiplexor
                : 4. Logon/Logoff

External Support Req'd...: none
If Re-submission, Reason.:
Contributor's Name.....: John W. McCain
Company.....: Dundee Cement Company
Street.....: Hwy 79
City.....: Clarksville
State.....: Mo
Country.....: USA
Zip Code.....: 63336
Phone Number...: 314-242-3571
Telex.....:
Contribution Abstract.....: Solves logon's security problem. When you
logon via rte standard software, a fast c/r can get CM running, thus you
are on with no security at all. This merely asks for two (long) passwords
then schedules CI for a session. There is also some additional code
to spoof the naive intruder.
Additional Documentation....: See the source code.

```

AUTOMATIC PROGRAM SCHEDULER FOR COLD STARTS

```

Contribution Name.....: Schedpgm
Title.....: Automatic program scheduler for cold starts
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. schedpgm.sbmt This File
                  :02. schedpgm.pas Source in Pascal
                  :03. schedpgm.rel Relocatable
                  :04. auto.cmd Companion run-time commands
Operating System(s).....: RTEA all current versions
Language(s).....: HP/Pascal
Keywords.....: 1. Boot-up
                : 2. Scheduling

External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: John W. McCain
Company.....: Dundee Cement Company
Street.....: Hwy 79
City.....: Clarksville
State.....: Mo
Country.....: USA
Zip Code.....: 63336
Phone Number...: 314-242-3571
Telex.....:
Contribution Abstract.....: Schedules programs at intervals at bootup
Additional Documentation....: This program reads the auto.cmd file and
schedules listed programs at the listed times. It has some flexible
features that are very nice. Such as... scheduling at the next
even X minutes to repeat every Y minutes. (or hours,seconds, etc.).
Scheduling at preset times to repeat every so often, etc. It reads
the system time, calculates the next even X increments and then
schedules the programs. I use this at boot-up to start many logging
and report programs. For details see the auto.cmd file. I wrote this
because none of the boot-up programs had the flexibility I needed.

```

COUNT NUMBER OF FILES ON ALL MOUNTED FMGR CARTRIDGES

```

Contribution Name.....: FILES
Title.....: Count number of files on all mounted FMGR cartridges
File Names.....:00. Rename Transfer File
                  :01. #FILES - submission file
                  :02. $FILES - count files on FMGR CRN's
                  :03. #FILES - relocatable
                  :04. #FILES - LINK command file
                  :05. #FILE - procedure file to compile and link
                  :06. $NEPLB - LINDX'd library for #FILES
Operating System(s).....: RTE-6/VM rev.2340
Language(s).....: FTN7X(rev.2340)
Keywords.....: 01. FMGR
                : 02. DIRECTORY
                : 03. FILES

External Support Req'd...: just $NEPLB
If Re-submission, Reason.:
Contributor's Name.....: Jonathan P. Hohmann
Company.....: Norwich Eaton Pharmaceuticals, Inc.
Street.....: PO Box 191
City.....: Norwich
State.....: NY
Country.....: USA
Zip Code.....: 13815
Phone Number...: (607) 335-2527
Telex.....:
Contribution Abstract.....: count the number of files on all mounted FMGR
CRN's
Additional Documentation....:

```



```

: 02. REG 723.PAS - Source file
: 03. REG-723.REL - Relocatable
: 04. REG-723.LOD - LINK command
Operating System(s)..... RTE-6/VM
Language(s)..... Pascal 1000
Keywords..... 1. Engineering
: 2. Calculator
External Support Req'd...
If Re-submission, Reason..
Contributor's Name..... Karl W. Haner
Company..... General Dynamics Pomona Division
Street..... P.O. Box 2507
City..... Pomona
State..... CA
Zip Code..... 91769
Phone Number... (714) 868-1908
Telex.....
Contribution Abstract.....
Calculates the resistor values for a 723 type voltage regulator IC
given desired output voltage, desired current limit, measured reference
voltage, and desired voltage divider current.
Refer to manufactures data reference sheet for circuit description.
Additional Documentation....

```

TIMER_555

L098

555 TIMER COMPONENT-VALUE CALCULATOR

```

Contribution Name..... TIMER 555
Title..... 555 Timer component-value calculator
File Names..... 00. Rename transfer file.
: 01. TIMER_555.SBMT - Submission file
: 02. TIMER_555.PAS - Source file
: 03. TIMER_555.REL - Relocatable
: 04. TIMER_555.LOD - LINK command
Operating System(s)..... RTE-6/VM
Language(s)..... Pascal 1000
Keywords..... 1. Engineering
External Support Req'd...
If Re-submission, Reason..
Contributor's Name..... Karl W. Haner
Company..... General Dynamics Pomona Division
Street..... P.O. Box 2507
City..... Pomona
State..... CA
Zip Code..... 91769
Phone Number... (714) 868-1908
Telex.....
Contribution Abstract.....
Calculate resistor values for a given capacitor value and frequency,
or calculate on/off time and frequency given the component values for a
555 timer IC.
Additional Documentation....

```

SHOWM

L099

DISPLAY CPU UTILIZATION

```

Contribution Name..... SHOWM
Title..... Display CPU utilization
File Names..... 00. Rename Transfer File (Interex-supplied)
: 01. SHOWM.SBMT
: 02. SHOWM.FTN
: 03. SAMPLE.MAC
Operating System(s)..... RTE-6/VM
Language(s)..... FTN7X.MACRO
Keywords..... 1. SYSTEM
: 2. ANALYZER
: 3. DISPLAY
External Support Req'd...
If Re-submission, Reason..
Contributor's Name..... KENNETH CORNETET
Company..... NAVAL ORDNANCE STATION
Street..... SOUTHSIDE DRIVE
City..... LOUISVILLE
State..... KY
Country..... USA
Zip Code..... 40214-5001
Phone Number... 502-364-5756
Telex.....
Contribution Abstract.....
Program SHOWM schedules program SAMPL to sample the state 1 program
list at given intervals. SHOWM then gives a graphic display of
how much CPU time each program is using. This program is similar
to METER except this program shows CPU use of ALL programs, not
just session programs.
Additional Documentation....

```

RAMDISC

L100

RAM-DISC DRIVER FOR RTE-6

```

Contribution Name..... RAMDISC
Title..... RAM-DISC driver for RTE-6
File Names..... 00. Rename Transfer File (Interex-supplied)
: 01. RAMDISC.SBMT
: 02. DVX33.MAC
: 03. RINIT.FTN
Operating System(s)..... RTE-6
Language(s)..... FTN7X.MACRO
Keywords..... 1. Driver

```

```

: 2. Emulator
: 3. Disc
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: KENNETH CORNETET
Company.....: NAVAL ORDNANCE STATION
Street.....: SOUTHSIDE DRIVE
City.....: LOUISVILLE
State.....: KY
Country.....: USA
Zip Code.....: 40214-5001
Phone Number...: 502-364-5756
Telex.....:
Contribution Abstract...:
DVX33 is an RTE-6/VM driver that utilizes free memory
as a 64 sector/track disk drive.

GOOD NEWS:
This driver seems to be completely compatible with
FMCR and CI file calls. There isn't really any
information supplied by HP on what is expected of
a disk driver.

BAD NEWS:
This driver WILL NOT handle system IO requests.
You cannot run programs from a cartridge or directory
which resides in ram. The problem is that RTE assumes
that programs coming in off a disk are doing so by DMA.
Since this driver doesn't use the DCPC maps or DCPC
interrupts, system IO will not work. Also, DVX33 will
not work on privileged systems.

Additional Documentation....:

```

MACLIB

L101

MACRO LIBRARY FOR WRITING STRUCTURED MACRO CODE

```

Contribution Name.....: Maclib
Title.....: MACRO Library for Writing Structured MACRO Code
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. Maclib.Sbmt (Submission File)
:02. Maclib1.Mac (Source code)
:03. Maclib1.Mlb (Library file)
:04. Maclib2.Mac (Source code)
:05. Maclib2.Mlb (Library file)
:06. Maclib3.Mac (Source code)
:07. Maclib3.Mlb (Library file)
Operating System(s).....: RTE-6/VM
Language(s).....: MACRO
Keywords.....: 1. Macro
: 2. Library
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Kevin West
Company.....: TDC
Street.....: 621 6 Flags Drive
City.....: Arlington
State.....: Texas
Country.....: USA
Zip Code.....: 76011
Phone Number...:
Telex.....:
Contribution Abstract...:
A collection of useful macros, originally written by Dale Garcia of TDC,
which allow the user to write MACRO code in a more structured manner.

```

The following macros are available in MACLIB1:

```

DO.UNTIL      Perform a block of code until given condition
END.DO.UNTIL becomes true. Test is at end of loop.

DO.WHILE      Perform a block of code while a condition is true.
END.DO.WHILE Test for condition is at beginning of loop.

DO.FOR        Perform a block of code a specified number of
DO.NEXT       of times with optional step size.

DO.REPEAT     Repeat a block of code a specified number of times.
END.DO.REPEAT Increment and test is at end of loop.

CYCLE.DO      Cycle through to next iteration of loop.

BREAK.DO      Break from DO.UNTIL, DO.WHILE, FOR, or REPEAT loop.

DO.CASE.OF   \ These routines implement the CASE structure found
CASE.OF      \ in higher level languages. Nested CASE statements
OTHERWISE    \ are supported to a depth of 10 and does not effect
END.DO.CASE  \ the IF statement nesting.

GLOBAL        This macro defines global values used in the macro
              routines used in this library. It should be used
              before using any macro that may use them.

```

The following macros are available in MACLIB2:

```

IF.TRUE       Test if value of a variable is .TRUE. (MSB one)
ELSEIF.TRUE   ELSEIF form of IF.TRUE
IF.FALSE      Test if value of a variable is .FALSE. (MSB zero)
ELSEIF.FALSE  ELSEIF form of IF.FALSE

IF.ZERO       Test if value of a variable is zero
ELSEIF.ZERO   ELSEIF form of IF.ZERO
IF.NOT.ZERO   Test if value of a variable is non-zero
ELSEIF.NOT.ZERO ELSEIF form of IF.NOT.ZERO

IF.POSITIVE   Test if value of a variable is positive (MSB zero)
ELSEIF.POSITIVE ELSEIF form of IF.POSITIVE
IF.NEGATIVE   Test if value of a variable is negative (MSB one)
ELSEIF.NEGATIVE ELSEIF form of IF.NEGATIVE

IF.EVEN       Test if value of a variable is even (LSB zero)
ELSEIF.EVEN   ELSEIF form of IF.EVEN

```

```

IF.ODD          Test if value of a variable is odd (LSB one)
ELSEIF.ODD      ELSEIF form of IF.ODD

IF.BITS         Test if all bits in mask are set
ELSEIF.BITS     ELSEIF form of IF.BITS
IF.NOT.BITS     Test if all bits in mask are clear
ELSEIF.NOT.BITS ELSEIF form of IF.NOT.BITS

IF.FLAG.SET     Test if I/O card FLAG is Set for Select Code
ELSEIF.FLAG.SET ELSEIF form of IF.FLAG.SET
IF.FLAG.CLEAR  Test if I/O card FLAG is Clear for Select Code
ELSEIF.FLAG.CLR ELSEIF form of IF.FLAG.CLEAR

IF.TRUE        Test a variable to see if the value is a logical
ELSEIF.TRUE    .TRUE. (MSB = 1).

IF.FALSE       Test a variable to see if the value is a logical
ELSEIF.FALSE   .FALSE. (MSB = 0).

```

The following macros are available in MACLIB3:

```

DO              Invoke subroutine (without parmameters)
BEGIN          Retains entry point of routine for EXIT
RETURN        Return from subroutine (must use macro to invoke)
COPY          Copy word(s) from location to location
INCR          Increment a variable
DECR          Decrement a variable
TRUE          Set variable to a .TRUE. value (-1)
FALSE         Set variable to a .FALSE. value (0)
CLEAR         Set variable to a zero value
SET.BITS      Set bits as specified in mask
CLEAR.BITS    Clear bits as specified in mask
CALC          Perform Arithmetic/Logical Operations
TABLE        Create Table Entries
DO            Invoke specified routine (No parameters)
BEGIN        This macro is used to enter a subroutine that has
              no parameters and does not need the return address
              removed. It Generates a NOP to store the return
              address and retains the entry point name in order
              for the RETURN macro to generate the code to return
              from the routine. Used with DO.
RETURN       Return from subroutine that has been entered with
              a BEGIN or ENTRY.

```

Additional Documentation....:

CLR

L102

CLEAR TERMINAL SCREEN AFTER LOGOFF

```

Contribution Name.....: CLR
Title.....: Clear Terminal Screen after logoff
File Names.....: 00. Rename transfer file
                  01. 'Clr Submission file
                  02. &Clr Source code file
                  03. %Clr Relocatable code file

Operating System(s).....: Rte-4B, Rte-6
Language(s).....: Ftn4x
Keywords.....: 1. Session
                2. Logon/Logoff

External Support Req'd...:
If Re-submission, Reason.: Modified version ( Bob Desinger's pgm )
Contributor's Name.....: Larry Richardson
Company.....: CNVEO
Street.....:
City.....: Fort Belvoir
State.....: Virginia
Country.....: USA
Zip Code.....: 22060-5677
Phone Number...: (703) 664-4913
Contribution Abstract.....: This program cleans the Crt screen after
logoff,( & softkey labels ) and may be used under Rte-4B and Rte-6. It
was adapted from Bob Desinger's CLR program Vol. 5 issue 5 of the HP
Communicator Magazine ( page 27 ).

```

Additional Documentation....: See Source code

PRT

L103

ASCII FILE PRINT PROGRAM

```

Contribution Name.....: PRT
Title.....: ASCII File print program
File Names.....: 00. Rename transfer file
                  01. 'Prt Submission file
                  02. &Prt Source code file
                  03. %Prt Relocatable code file
                  04. ^Prt LOADR command file
                  05. &Movb Character Manipulation pgm
                  06. %Movb "
                  07. &Uplc Case Conversion source code Relocat.
                  08. %Uplc " Relocatable

Operating System(s).....: Rte-4B, Rte-6
Language(s).....: Ftn4x, Asmb
Keywords.....: 1. List

External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Larry Richardson
Company.....: CNVEO
Street.....:
City.....: Fort Belvoir
State.....: Virginia
Country.....: USA
Zip Code.....: 22060-5677
Phone Number...: (703) 664-4913
Contribution Abstract.....: This program prints an ASCII file to a user
specified print Lu, with a double wide heading that has the date and time.
The file printed includes line numbers. Lower case input is converted to

```

UPPER case, the screen is not scrolled, and multiple files may be printed.
The program utilizes REIO calls; and blinking inverse video to keep
the user's interest. Try it, you'll like it !!!!

Additional Documentation....: See Source code

SCAN

L104

DUMP TERMINAL SCREEN TO LINE PRINTER

Contribution Name.....: SCAN
Title.....: Dump Terminal Screen to line printer
File Names.....: 00. Rename transfer file
 : 01. 'Scan Submission file
 : 02. %Scan Source code file
 : 03. %Scan Relocatable code file
 : 04. ^Scan LOADR command file
Operating System(s).....: Rte-4B, Rte-6
Language(s).....: Ftn4, Ftn4x
Keywords.....: 1. Terminal
 : 2. List
External Support Req'd...: If Re-submission, Reason...
Contributor's Name.....: Larry Richardson
Company.....: CNVED
Street.....:
City.....: Fort Belvoir
State.....: Virginia
Country.....: USA
Zip Code.....: 22060-5677
Phone Number...: (703) 664-4913
Contribution Abstract.....: This little program allows all of your poor
overworked, underpaid users to dump their Terminal's screen to either of
several printers. This not only helps to educate them to proper terminal
usage but also works as a training aid (keeps a record of THEIR mistakes so
that they can't point an ugly finger at YOUR wonderful SYSTEM and Scream
" I don't understand it, I KNOW that I didn't misuse that command !!!!!)
But seriously, folks.. I have always wanted to keep from writing down the
various and never-ending comments from Rte; so when I stumbled upon David
Liu's PSCRN program (Vol. IV Issue 3 page 15) I was OVERJOYED !!!! I just
reworked it to work with my system and I hope you may find it helpful to you.
Additional Documentation....: See Source code

PASSW

L105

PASSWORD VALIDATION

Contribution Name.....: passw
Title.....: Password validation
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. passw.sgmt - Submission file.
 : 02. passw.ftn - Source Code Main
 : 03. read_cct.ftn - Source Code Subroutine
 : 04. read_pwd.ftn - Source Code Subroutine
 : 05. reset_pwd.ftn - Source Code Subroutine
 : 06. make_pw.ftn - Source Code Main Init
 : 07. fix_pw.ftn - Source Code Main Utility
 : 08. passw.rel - Relocatable of passw.ftn
 : 09. read_cct.rel - Relocatable of read_cct.ftn
 : 10. read_pwd.rel - Relocatable of read_pwd.ftn
 : 11. reset_pwd.rel - Relocatable of reset_pwd.ftn
 : 12. make_pw.rel - Relocatable of make_pw.ftn
 : 13. fix_pw.rel - Relocatable of fix_pw.ftn
 : 14. compile.cmd - Compiles all source code
 : 15. passw.lod - Link file for passw.ftn
 : 16. make_pw.lod - Link file for make_pw.lod
 : 17. fix_pw.lod - Link file for fix_pw.lod
Operating System(s).....: RTE-6VM
Language(s).....: FTN7X
Keywords.....: 1. Security
 : 2. Session
External Support Req'd...: If Re-submission, Reason...
Contributor's Name.....: Les Troyer
Company.....: Exxon Nuclear, Inc.
Street.....: 2101 Horn Rapids Rd
City.....: Richland
State.....: Wa
Country.....: USA
Zip Code.....: 99352
Phone Number...: (509) 375-8695
Telex.....:
Contribution Abstract.....: The program enhances security for RTE-6VM
by adding password aging and minimum password length requirements.
The program works in conjunction with a command structure within the
Hello file. Command structures for both CI and FMGR are given in the
PASSW.FTN listing.
Passwords must be changed at least every 30 days. Password length
must be a minimum of 5 characters. If these two conditions are not met
the hello file will schedule accounts. The user is then allowed to change
his/her password. After exiting accounts the user is logged off.
In order to assist the SE's HP "hard coded" a standard password into
every RTE-6VM system. This makes it easy for HP engineers to access your
machine but also presents grave security risks if dial in lines are
installed on your system. A program is also given to "scramble" the
standard HP support password. The user should make a backup of +@CCT!
before running this program.
Additional Documentation....: See the program listings.

VARIABLE INITIALIZING SUBROUTINES AND CLASS FINDING SUB

```

Contribution Name.....: LLL-GOODIES
Title.....: Variable Initializing Subroutines and Class Finding Sub
File Names.....:00. Rename Transfer File
                  :01. LLL.SBMT           Submission file
                  :02. ZEROARRAY.MAC        SOURCE
                  :03. ZEROARRAY.REL       RELOCATABLE
                  :04. FILL_BLANKS.MAC     SOURCE
                  :05. FILL_BLANKS.REL     RELOCATABLE
                  :06. FIND_CLASS.FTN     SOURCE
                  :07. FIND_CLASS.REL     RELOCATABLE

Operating System(s).....: RTE-A
Language(s).....: FTN7, MACRO
Keywords.....: 1. Library
               : 2. Class_number

External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Love, Larry L.
Company.....: 3M
Street.....: 610 County Rd. 19 N.
City.....: Aberdeen
State.....: SD
Country.....: U.S.A.
Zip Code.....: 57401
Phone Number...: (605) 229-5002

Contribution Abstract.....:
The subroutine FILL BLANKS is used to initialize character variables -
single or multidimensional to blanks
The subroutine ZEROARRAY is used to initialize real or integer variables -
single or multidimensional to zeros
The subroutine FIND CLASS is used to locate a class number of another
program without passing the information

For further information check the source on each
    
```

EDIT & COMPILE

```

Contribution Name.....: Edit&Compile
Title.....: Edit & Compile
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. Edit&Compile.sgmt
                  :02. Edit&Compile.cmd
                  :03. Yesno.ftn

Operating System(s).....: Rte-A
Language(s).....: n/a
Keywords.....: 1. Command files
               : 2. Procedures

External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Michael David Green
Company.....: Dept. Aerospace Engineering
Street.....: University of Maryland
City.....: College Park
State.....: Maryland
Country.....: USA
Zip Code.....: 20742
Phone Number...: (301) 454 2922
Telex.....:

Contribution Abstract.....: Command file to allow editing of a file
with option of creating a back-up copy.
Option to compile and then link with
supplied libraries and/or files.
If no errors run the program.
Demonstrates use of C1's if-then structure,
set, echo and $return parameter.

Additional Documentation.....:
    
```

BUILD MENU/COMMAND SCHEDULER FROM USER-BUILT MENU

```

Contribution Name.....: MENU
Title.....: Build menu/command scheduler from user-built menu
File Names.....: 00. Rename Transfer File
                  : 01. MENU.SBMT
                  : 02. MENU.FTN
                  : 03. MENU.LOD
                  : 04. MENU.DOC
                  : 05. DL.PNL
                  : 06. SP.PNL
                  : 07. menu.inst
                  : 08. WH.PNL
                  : 09. SUB.PNL
                  : 10. C&L.PNL

Operating System(s).....: RTE-A,RTE-6
Language(s).....: FTN7X
Keywords.....: 01. Procedures
               : 02. Scheduling
               : 03. 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.....:

Contribution 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.

STRING

STRING MANIPULATION IN CI COMMAND FILES

L109

Contribution Name.....: STRING
Title.....: String Manipulation in CI Command Files
File Names.....: 00. Renaming command file.
:01. STRING.SBMT This file.
:02. READ.ME Installation instructions.
:03. INSTALL.CMD Installation command file.
:04. POS.FTN Source for POSS
:05. MID.FTN Source for MIDS
:06. LEFT.FTN Source for LEFTS
:07. RIGHT.FTN Source for RIGHTS
:08. POS.REL Relocatable for POSS
:09. MID.REL Relocatable for MIDS
:10. LEFT.REL Relocatable for LEFTS
:11. RIGHT.REL Relocatable for RIGHTS
:12. POS.LOD Link file for POSS
:13. MID.LOD Link file for MIDS
:14. LEFT.LOD Link file for LEFTS
:15. RIGHT.LOD Link file for RIGHTS
:16. STRING.HLP /HELP file for package.
Operating System(s).....: RTE-6 and RTE-A (must have C.83)
Language(s).....: FORTRAN 77
Keywords.....: 1. Command files
: 2. Strings

External Support Req'd...:
If Re-submission, Reason...:
Contributor's Name.....: Nick Seidenman
Company.....: McDonnell/Douglas Corp.
Street.....: 6935 Wisconsin Avenue
: Suite 600
City.....: Bethesda
State.....: MD
Country.....: USA
Zip Code.....: 20815
Phone Number...: 301-961-1885

Contribution Abstract.....:
These four programs operate similarly to string functions found in APPLESOFT(c) BASIC. They can be used for string manipulation in CI transfer files, or scheduled by other programs. Below is a list of these programs and their respective functions:

POSS <s1> <s2> - Returns the starting position in <s1> of <s2>. The first position in <s1> is assumed to be 1.
MID\$ <s> <l> - Extract the substring of <s> beginning at of length <l>.
LEFT\$ <s> <l> - Extracts the leftmost <l> characters from <s>.
RIGHT\$ <s> <l> - Extracts the rightmost <l> characters from <s>.

Additional Documentation....: See STRING.HLP

LOGON

LOG-ON PACKAGE FOR REMOTE SYSTEMS

L110

Contribution Name.....: LOGON
Title.....: Log-on Package for Remote Systems
File Names.....: 00. Rename Transfer File
:01. LOGON.SBMT
:02. READ.ME.LST
:03. ATDT.MAC
:04. LOGON.SALS
:05. LOGON.COM
:06. TRMID6.LOD
:07. TRMID6.LOD
:08. TRMID.FTN
:09. SFKEY6.LOD
:10. SFKEYA.LOD
:11. SFKEYA.FTN
:12. SETKE.LOD
:13. SETKE.FTN
:14. SOFTKEYS.HLP
:15. RLOG6.LOD
:16. RLOGA.LOD
:17. RLOGF.FTN
:18. RLOGM.MAC
:19. SLUTA.MAC
:20. RLOGX6.LOD
:21. RLOGXA.LOD
:22. RLGXF.FTN
:23. RLGXM.MAC
:24. NMSC.MAC
:25. CLGF.MAC
:26. LOAD.BREAK.CMD
:27. #BREAK6
:28. BREAKA.LOD
:29. BREAK.MAC
:30. BRK.6.FTN
:31. BRK.A.FTN
:32. CLSCR.LOD

```

:33. GLSCR.FTN
:34. LIBS.CMD
:35. SFKEYLB.MRG
:36. UTFLB.MRG
:37. IDTER.FTN
:38. IRAM.REL
:39. KSHFT.REL
:40. JCBI.REL
:41. MDEOT.MAC
:42. SLCOD.FTN
:43. LENG.FTN
:44. WRITEFILE.FTN
:45. READFILE.FTN
:46. WRERR.FTN
:47. CVNUM.MAC
:48. IEQTP.MAC
:49. ISWAP.MAC
:50. IOPSY.MAC
:51. WF.HI
:52. A9.HI
:53. RLO900.CMD
:54. EXIT.CMD
:55. DVFO5 2141.MAC
Operating System(s)..... RTE-67VM, RTE-A
Language(s)..... FTN77, ASSEMBLER
Keywords.....:01. SESSION
:02. SOFTKEYS
:03. DS

External Support Req'd...
If Re-submission, Reason.:
Contributor's Name..... Norm Kay & Bill Fock
Company..... CSIRO
Street..... Div. Materials Science & Technology
City..... Locked bag 33
State..... CLAYTON
Country..... Victoria
Zip Code..... AUSTRALIA
Phone Number..... 3168
Telex.....

Contribution Abstract..... LOGON logs on to a remote systems and sets
softkeys in accordance with a file located
at the remote system.
Additional Documentation.... See file READ_ME.LST and source files.

```

DAS

L111

DATUM SHIFT / GEODETIC CALCULATOR

```

Contribution Name..... DAS
Title..... Datum Shift / Geodetic Calculator
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. DAS.SBMT - Submit file
:02. DAS.LOD - Command file
:03. DAS.DOC - User manual
:04. DAS.FTN - DAS main program
:05. DAS.REL -
:06. DAS.LIB.FTN - DAS subroutine library
:07. DAS.LIB.REL -
Operating System(s)..... RTE-A with CI file system
Language(s)..... FTN7X
Keywords.....:01. CALCULATOR
:02. GEODESY
:03. REGRESSION

External support req'd...
If Re-submission, Reason.:
Contributor's Name.....Ornulf C. Moen
Company.....GECO a/s
Street.....KJORBOKOLLEN
City.....N-1300 SANDVIKA
State.....
Country.....NORWAY
Zip Code.....
Phone Number.....47 / 2 / 475602
Telex.....78623A GECO N

Contribution Abstract.....
DAS is an interactive program that deals with some of the most
common problems in geodesy, particularly those related to
offshore surveying.
Much effort is put into making DAS a user-friendly tool.
Erroneous input will not crash the program, instead a descriptive
error message is presented and the user can continue with the
program and data in the same state as before the accident.

Included features :
- Five parameter datum shift of coordinates
- Conversion to/from grid (UTM) coordinates
- Distance and bearing from two given points.
(INVERSE GEODETIC PROBLEM).
- Point computation given a start point, distance and bearing.
(DIRECT GEODETIC PROBLEM).

DAS LIB also contains some general routines for cursor controlled
writing on the screen of a HP 2626A terminal (or similar).
Additional Documentation....

```

VLIST

L112

PRINT LIST OF CI VOLUMES AND SIZES

```

Contribution Name..... VLIST
Title..... Print list of CI volumes and sizes
File Names.....:00. Rename transfer file
:01. VLIST.SBMT submit file
:02. VLIST.FTN source file
:03. VLIST.REL relocatable file
:04. VLIST.CMD command file
:05. VLIST.LOD link file
Operating System(s)..... RTE-A900

```

```

Language(s).....: FTN7X
Keywords.....: 1. CI
                2. Directory
External Support Req'd...: CI file system
If Re-submission, Reason.:
Contributor's Name.....: Paul Abell
Company.....: GTE of the South
Street.....: 3007 Roxboro Rd.
City.....: Durham
State.....: N.C.
Country.....: USA
Zip Code.....: 27704
Phone Number...: (919) 471-5825
Telex.....:
Contribution Abstract.....: This program is the CI version of CLIST.
CLIST was originally written for FMGR files. This version works only
with CI files. It will print out a list of CI volumes and their sizes.
It is obsolete as of version 4.0 of RTE-A and RTE-6VM. You can now use
FREES to get the same information.

Additional Documentation....: In source file.

```

EXTENT

L113

CLEAR CI-FILE EXTENTS

```

Contribution Name.....: EXTENT
Title.....: Clear CI-file extents
File Names.....:00. Rename transfer file
                :01. EXTENT.SBMT submit file
                :02. EXTENT.FTN source file
                :03. EXTENT.REL relocatable file
                :04. EXTENT.CMD command file
                :05. EXTENT.LOD link file
Operating System(s).....: RTE-A 900, RTE-6VM
Language(s).....: FTN7X
Keywords.....: 1. CI
                2. Extents
External Support Req'd...: CI file system
If Re-submission, Reason.:
Contributor's Name.....: Paul Abell
Company.....: GTE of the South
Street.....: 3007 Roxboro Rd.
City.....: Durham
State.....: N.C.
Country.....: USA
Zip Code.....: 27704
Phone Number...: (919) 471-5825
Telex.....:
Contribution Abstract.....: This program is the CI version of CLEXT.
CLEXT was originally written for FMGR files. This version works only
with CI files. It is similar in operation to two submissions, on rev. 2625
of the INTEREX Library Tape, called SHRINK and TRIMF.

EXTENT will skip over the /PROGRAMS and /SCRATCH directories.

Usage:
CI> extent /rtea      directory specified
CI> extent            default
CI> extent,,6        default, print to LU 6

Additional Documentation....: In source file.

```

OPENC

L114

PRINT OPEN-CI-FILE INFO

```

Contribution Name.....: OPENC
Title.....: Print open-CI-file info
File Names.....:00. Rename transfer file
                :01. OPENC.SBMT submit file
                :02. OPENC.FTN source file
                :03. OPENC.REL relocatable file
                :04. OPENC.CMD command file
                :05. OPENC.LOD link file
Operating System(s).....: RTE-A900 V4.0, RTE-6VM V4.0
Language(s).....: FTN7X
Keywords.....: 1. CI
                2. Directory
                3. Files
External Support Req'd...: CI file system
If Re-submission, Reason.:
Contributor's Name.....: Paul Abell
Company.....: GTE of the South
Street.....: 3007 Roxboro Rd.
City.....: Durham
State.....: N.C.
Country.....: USA
Zip Code.....: 27704
Phone Number...: (919) 471-5825
Telex.....:
Contribution Abstract.....: This program is the CI version of OPENF.
OPENF was originally written for FMGR files. This version prints the
same information about CI files in the same format as OPENF. The only
difference is the source file LU is not printed, but the source file
directory is. Example:

```

```

RU,OPENC <filedescriptor> <prt>
9:58 AM MON., 8 SEPT, 1986
RTEA-900 Open CI files

```

Page 1

File descriptor	Om	Open to/	LU	Address	ID #
TELACOUNT.LOG::SYSTEM:3:22:35		TELAC /	0	064573	14
+DBCON::IMAGE2:1:512:128		DBMON /	0	064361	11
+BIF::IMAGE2:1:1000:128		DBMON /	0	064361	11

OPENC finished

A word about Om in the header. Om stands for OPEN MODE. If a file is

$$\text{Man years} = \frac{\text{loc}^{**3}}{\text{c}^{**3} * \text{k}} \quad \backslash \quad 1/4$$

$$\text{Man hours} = \text{man years} * 12\text{mo} * 4.3\text{wk} * 40\text{hr}$$

Results: This formula seems to work out best in our shop when:
 K is 12 for 1000 lines of code and under.
 K is 6 for 1001-2000 lines of code.
 K is 2 for 2001-4000 lines of code.
 K is 1 for 4001 lines of code and up.

K is the effort in person/manhours.
 C is the programming environment, with:
 6500 being a POOR environment.
 10000 being a GOOD environment.
 12500 being a EXCELLENT environment.

Run example:

Computer Programming Project Time calculations

$$\text{Man years} = \frac{\text{LOC}^{**3}}{\text{C}^{**3} * \text{K}} \quad \backslash \quad 1/4$$

Lines of code	Environment	Effort	
LOC = 517	C = 10000	K = 12	
Man years = .06			
Man hours = 120.18			
Total 25hr wks = 4.81	Est. Comp. Apr. 18, 1987	Cost \$ 3605	
Lines of code = 516.67			
Lines of code/Hr. = 4.30			
Lines of code/day = 34.39			

Additional Documentation....: In source file.

PA

PAUSE COMMAND FOR CI

L119

```

Contribution Name.....: PA
Title.....: Pause Command for CI
File Names.....:00. Rename Transfer File
                  :01. PA.SBMT
                  :02. PA.FTN
                  :03. PA.REL
                  :04. PA.DOC
                  :05. PA.HLP
Operating System(s).....: RTE-A, RTE-6
Language(s).....: FTN7X
Keywords.....: 1. CI
                  : 2. Command_files
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Paul F. Gerwitz
Company.....: Eastman Kodak Co.
Street.....: 1669 Lake Ave
City.....: Rochester
State.....: New York
Country.....: USA
Zip Code.....: 14650
Phone Number...: 716-477-3067
Telex.....:
Contribution Abstract.....:
This program is used to provide a pause capability for CI
transfer files much like the equivalent capability in FMGR.
Additional Documentation....:

```

CA

CALCULATE COMMAND FOR CI

L120

```

Contribution Name.....: CA
Title.....: Calculate Command for CI
File Names.....:00. Rename Transfer File
                  :01. CA.SBMT
                  :02. CA.FTN
                  :03. CA.REL
                  :04. CA.DOC
                  :05. CA.HLP
Operating System(s).....: RTE-A, RTE-6
Language(s).....: FTN7X
Keywords.....: 1. CI
                  : 2. Calculator
                  : 3. Command_files
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Paul F. Gerwitz
Company.....: Eastman Kodak Co.
Street.....: 1669 Lake Ave
City.....: Rochester
State.....: New York
Country.....: USA
Zip Code.....: 14650
Phone Number...: 716-477-3067
Telex.....:
Contribution Abstract.....:
This program is used to provide a calculate capability for CI
transfer files much like the equivalent capability in FMGR.
Additional Documentation....:

```

A COLLECTION OF RTE-A SPOOLING UTILITIES

```

Contribution Name.....: Spoolutil
Title.....: A Collection of RTE-A Spooling utilities
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. SPOOLUTIL.SBMT Submission file
                  :02. GETSPOOL.FTN Program obtains spool name
                  :03. SETSPOOL.CMD Cmd-file starts spooling
                  :04. RESPOOL.CMD Release, then restart spool
                  :05. KSPool.CMD Kill (purge) current spool
                  :06. HELLO Standard user startup cmds
                  :07. HELLO.CMD More startup commands
                  :08. SPOOL Help for the above cmd-files
Operating System(s).....: RTE-A
Language(s).....: FTN7X and CI (command-file stuff)
Keywords.....: 1. Spooling
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Paul Schumann
Company.....: E-Systems, Inc.
Street.....: P. O. Box 1056 CBN 101
City.....: Greenville
State.....: TX
Country.....: USA
Zip Code.....: 75401
Phone Number...: (214) 457-5358
Telex.....:
Contribution Abstract.....: If you tire of typing "OUTSPOOLnn.SPL::SPOOL,
this will ease the problem. GETSPOOL returns spool information to CI
about the passed LU, and SET-/RE-/KSPool deal with that information to
start, release and restart, or kill spooling, respectively. As our
users log on, they ALL execute "HELLO" (in some directory besides the
user's working-directory or CMDFILES), and if the individual user lacks
his own HELLO.CMD (in their working-directory), the HELLO.CMD file is
executed (from the CMDFILES directory). In our environment, this makes
spooling almost as easy (for new users) as it is under RTE-6.
Additional Documentation....: See GETSPOOL.FTN

```

KERMIT 1.99 - MACHINE-TO-MACHINE FILE TRANSFER

```

Contribution Name.....: KERMIT
Title.....: KERMIT 1.99 - Machine-to-machine file transfer
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :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.IFTN Common include-file
                  :08. KCONCM.IFTN Common include-file
                  :09. KERCMP.IFTN Common include-file
                  :10. KERCNP.IFTN Common include-file
                  :11. KERCOM.IFTN Common include-file
                  :12. KERDBG.IFTN Common include-file
                  :13. KERFIL.IFTN Common include-file
                  :14. KERSTA.IFTN Common include-file
                  :15. KERMIT.ISTL Installation instructions
                  :16. KASUBS.FTN RTE-6 KERMIT-library source
                  :17. KASUBS.FTN RTE-A KERMIT-library source
                  :18. KERMIT.FTN KERMIT source
                  :19. SKASUBS.LIB KERMIT library for RTE-6
                  :20. SKASUBS.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 filesource
                  :24. KERMIT.TEXT "Source" for KERMIT.HLP
Operating System(s).....: 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.
In this version, terminal-emulation is improved (hopefully, no more mux
lockups!), transportable code (between like systems), partial support for
the "D" mux under RTE-A (not fully tested yet!).
Additional Documentation....: See KERMIT.ISTL for installation instructions.

```

IMREL 1.1: AN ABSOLUTE/RELOCATABLE DISASSEMBLER

```

Contribution Name.....: ImRel
Title.....: ImRel 1.1: An absolute/relocatable disassembler
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. IMREL.SBMT Submission file
                  :02. Controls.iftn Common include-file
                  :03. DBLInfo.iftn Common include-file
                  :04. DebugInfo.iftn Common include-file
                  :05. Files.iftn Common include-file
                  :06. ImRel.ftn Main source file

```

```

:07. MiniFormat.iftn Common include-file
:08. Symbols.iftn Common include-file
:09. Symbol Format A documentation aid
:10. ImRel.Lod Link command-file
Operating System(s).....: RTE-6 or RTE-A, revision c.83 and later
Language(s).....: FTN7X
Keywords.....: 1. Inverse
: 2. Macro
External Support Req'd...: None
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.....: ImRel was originally contributed at the
Interex Detroit conference in 1986 as revision 0.9. This version has
all known bugs fixed, is faster, and can disassemble absolute files!
Additional Documentation...: The "symbol format" file explains the symbol-
table format used by ImRel, and has a few other things to which I required
fast access during the development of ImRel. ImRel.lod contains some info
about linking under RTE-6 and run-time errors under RTE-6 and -A which may
be affected by the manner in which ImRel was linked.

```

PRETTY

L124

ALLOWS USE OF SHADING ON LASERJET PLUS

```

Contribution Name.....: PRETTY
Title.....: Allows use of shading on LaserJet Plus
File Names.....:00. Rename transfer file
:01. PRETTY.SBMT submit file
:02. PRETTY.FTN source file
:03. PRETTY.REL relocatable file
:04. PRETTY.CMD command file
:05. PRETTY.LOD link file
:06. PRETTY.HELP help file
:07. ADDIX.FTN source
:08. ADDIX.REL relocatable
:09. LIST.FTN source
:10. LIST.REL relocatable
:11. LEFTJUSTIFY.MAC source
:12. LEFTJUSTIFY.REL relocatable
:13. README documentation
:14. ADDIX.LOD
Operating System(s).....: RTE-A900 V4.0, RTE-6VM V4.0
Language(s).....: Only tested on RTE-A
Keywords.....: 1. FTN7X
: 2. LaserJet
External Support Req'd...: 1. LaserJet
: 2. Text
If Re-submission, Reason.: CI file system, addix, list,
Contributor's Name.....: Phil Shryock
Company.....: GTE of the South
Street.....: 3007 Roxboro Rd.
City.....: Durham
State.....: N.C.
Country.....: USA
Zip Code.....: 27704
Phone Number...: (919) 471-5085
Telex.....:
Contribution Abstract.....:
The pretty program allows the shading of characters on a particular
line of text when using the Laserjet Plus printer. Refer to your Laserjet
Plus reference manual for details on patterns and shadings.
Note: The area to be shaded matches the character size as output by
Laser Jet Font number 92286G (Legal Elite Pitch=12 Point=10)
See readme file for linking information.
Additional Documentation....: In source file. On line help. Readme file

```

LPRT

L125

PRINT FILE ON LASER JET IN 2 COLUMNS

```

Contribution Name.....: LPRT
Title.....: Print file on laser jet in 2 columns
File Names.....:00. Rename transfer file
:01. LPRT.SBMT submit file
:02. LPRT.FTN source file
:03. LPRT.REL relocatable file
:04. LPRT.CMD command file
:05. LPRT.LOD link file
:06. ENH.FTN source file
:07. ENH.REL relocatable
:08. TERM.SETUP.FTN source file
:09. TERM.SETUP.REL relocatable file
:10. TERM.SETUP.INC include file
Operating System(s).....: RTE-A900 V4.0
Language(s).....: FTN7X
Keywords.....: 1. LaserJet
: 2. List
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Phil Shryock
Company.....: GTE of the South
Street.....: 3007 Roxboro Rd.
City.....: Durham
State.....: N.C.
Country.....: USA
Zip Code.....: 27704
Phone Number...: (919) 471-5085
Telex.....:
Contribution Abstract.....: This program will print out a file on the
laser jet in landscape mode in two columns compressed and optionally shade
comment lines. This will produce a listing with fewer pages and some think,

```


easier to read.

Additional Documentation....: In source file.

FOR

GENERAL-PURPOSE WILDCARD CI COMMAND GENERATOR

L126

Contribution Name.....: FOR
Title.....: General-purpose wildcard CI command generator
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. FOR.SBMT submission file
 : 02. FOR.FTN
 : 03. FOR.REL
 : 04. FOR.HELP
Operating System(s).....: RTE-6,RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Procedures
 : 2. CI
External Support Req'd...
If Re-submission, Reason...
Contributor's Name.....: Phil Walden
Company.....: HP
Street.....
City.....
State.....
Country.....
Zip Code.....
Phone Number.....
Telex.....
Contribution Abstract.....
Given a file mask, this program generates a CI command file
containing a specified command string. For each match of the
mask the command string is written to the file with parts of
the matched file name substituted into the command string.
See for.help for instructions. Move for.help to the help
directory for general access. E.g. co for.help @:::help
Additional Documentation....: See file FOR.HELP

FMP

GENERAL-PURPOSE FILE MANIPULATOR FOR CI COMMAND FILES

L127

Contribution Name.....: FMP
Title.....: General-purpose file manipulator for CI command files
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. FMP.SBMT submission file
 : 02. FMP.FTN
 : 03. FMP.FTNI
 : 04. FMP.REL
 : 05. FMP.HELP
 : 06. FMP.TXD
Operating System(s).....: RTE-6,RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Procedures
 : 2. CI
External Support Req'd...
If Re-submission, Reason...
Contributor's Name.....: Phil Walden
Company.....: HP
Street.....
City.....
State.....
Country.....
Zip Code.....
Phone Number.....
Telex.....
Contribution Abstract.....
FMP is a general purpose file manipulation program intended for
use in CI command files. It allows command files to open, read,
write, close and otherwise do things to files much the way a
programmer can using Fmp procedure calls. In general, a file is
opened by Fmp and assigned a unit number. Fmp terminates saving
resources. Subsequent schedules of Fmp manipulate the file
attached to the unit number. When all units are closed, Fmp
terminates absolutely.
Additional Documentation....: See file FMP.HELP

PSWD

CHANGE RTE-6 PASSWORDS OVER DS LINK

L128

Contribution Name.....: PSWD
Title.....: Change RTE-6 passwords over DS link
File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. ds_pwd.sbmt * Submission file
 : 02. ds_pwd.ftn
 : 03. ds_pwd.rel
 : 04. ds_pwd.lod
Operating System(s).....: RTE-6VM A.85 and up
Language(s).....: FTN77
Keywords.....: 1. DS
 : 2. Security
 : 3. Logon/Logoff
External Support Req'd...
If Re-submission, Reason...: DS/1000 IV, Accounts
 : Update for DSD4.0 DS/1000
Contributor's Name.....: R. Arthur Gentry
Company.....: AT&T Communications
Street.....: 19th Floor 1100 Walnut
City.....: Kansas City
State.....: Mo.
Country.....: USA
Zip Code.....: 64141
Phone Number.....: (816) 654-2446
Telex.....:

Contribution Abstract.....: Resubmit to handle DSD4.0 release of DS/1000 and requirement for a logon ID to access files on LU2.

Additional Documentation....: Run string is now:
pswd,out lu,id/password,node 1, node 2, ... node n

ADVENTURE

L129

ADVENTURE GAME

Contribution Name.....: ADVENTURE
Title.....: Adventure game
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. adventure.sbmt * Submission File
:02. advencom.ftn * Common block
:03. advendata.dat * Database
:04. advensubs.lib * LINDX'ed library sub
:05. advensubs1.ftn * LIB part 1 source
:06. advensubs1.rel * LIB part 2 source
:07. advensubs2.mac * Text database
:08. advensubs2.rel * Main
:09. adventext.dat * LINK command file
:10. adventure.ftn * Segment 1
:11. adventure.rel * Segment 2
:12. adventure.lod * Segment 3
:13. adven_seg1.ftn * Segment 4
:14. adven_seg1.rel * Segment 5
:15. adven_seg2.ftn * Segment 6
:16. adven_seg2.rel * Segment 7
:17. adven_seg3.ftn * Segment 8
:18. adven_seg3.rel * Segment 9
:19. adven_seg4.ftn * Segment 10
:20. adven_seg4.rel * Segment 11
:21. adven_seg5.ftn * Segment 12
:22. adven_seg5.rel * Library
:23. install.cmd * LINDXed library
:24. lib.cmd * Create LINDX file
:25. libsource * Use with LIB.CMD
:26. advencomm.dat * may not be needed
Operating System(s).....: RTE-6VM A.85 and up
Language(s).....: FTN77 & MACRO
Keywords.....: 1. games
External Support Req'd...: CI file system
If Re-submission, Reason.: n/a
Contributor's Name.....: R. Arthur Gentry
Company.....: AT&T Communications
Street.....: Rm 1903-3 1100 Walnut
City.....: Kansas City
State.....: Mo.
Country.....: USA
Zip Code.....: 64141
Phone Number...: (816) 654-2446
Telex.....:

Contribution Abstract.....: This is ADVENTURE for the HP1000, re-written for the CI file system. I have not tested it on one, but, *should* run on RTE-A also.

Additional Documentation....: Fairly well documented. Other than the game statagy itself, fairly easy to follow and modify if needed.

MYSTERY

L130

MYSTERY MANSION GAME

Contribution Name.....: MYSTERY
Title.....: Mystery Mansion game
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. mystery.sbmt * Submission File
:02. mystery.lod * LINK command file
:03. mystery.ftn * Main
:04. mystery.rel * Segment 1
:05. mystery_seg1.ftn * Segment 2
:06. mystery_seg1.rel * Segment 3
:07. mystery_seg2.ftn * Segment 4
:08. mystery_seg2.rel * Segment 5
:09. mystery_seg3.ftn * Segment 6
:10. mystery_seg3.rel * Segment 7
:11. mystery_seg4.ftn * Segment 8
:12. mystery_seg4.rel * Segment 9
:13. mystery_seg5.ftn * Segment 10
:14. mystery_seg5.rel * Segment 11
:15. mystery_seg6.ftn * Segment 12
:16. mystery_seg6.rel * Segment 13
:17. mystery_seg7.ftn * Segment 14
:18. mystery_seg7.rel * Segment 15
:19. mystery_seg8.ftn * Segment 16
:20. mystery_seg8.rel * Segment 17
:21. mystery_seg9.ftn * Segment 18
:22. mystery_seg9.rel * Segment 19
:23. mystery_seg10.ftn * Segment 20
:24. mystery_seg10.rel * Segment 21
:25. mystery_seg11.ftn * Segment 22
:26. mystery_seg11.rel * Segment 23
:27. mystery_seg12.ftn * Segment 24
:28. mystery_seg12.rel * Segment 25
:29. mystery_subs.ftn * Library
:30. mystery_subs.rel * LINDXed library
:31. mystery_subs.lib * LINDXed library
Operating System(s).....: RTE-6VM A.85 and up
Language(s).....: FTN77
Keywords.....: 1. games
External Support Req'd...: CI file system
If Re-submission, Reason.: n/a
Contributor's Name.....: R. Arthur Gentry
Company.....: AT&T Communications
Street.....: Rm 1903-3 1100 Walnut
City.....: Kansas City

State.....: Mo.
Country.....: USA
Zip Code.....: 64141
Phone Number..: (816) 654-2446
Telex.....:

Contribution Abstract.....: This is Mystery Mansion for the HP1000, re-written for the CI file system. I have not tested it on one, but, *should* run on RTE-A also.

Additional Documentation....: Fairly well documented. Other than the game stategy itself fairly easy to follow and modify if needed. Several bugs from the original version have been fixed and a few new surprises added.

BBS

BULLETIN BOARD

L131

Contribution Name.....: BBS
Title.....: Bulletin Board
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. bbs.sbmt * Submission File
:02. bbs.ftn * Main
:03. bbs.rel
:04. bbs.lod
:05. files.ftn * Handle BBS files sub
:06. files.rel
:07. install.cmd * Installation file
:08. scramble.ftn * File encryptor
:09. scramble.rel
:10. today.ftn * Date sub
:11. today.rel
Operating System(s).....: RTE-6VM A.85 and up
Language(s).....: FTN77
Keywords.....: 1. mail
: 2. message
External Support Req'd...: CI file system
If Re-submission, Reason.: n/a
Contributor's Name.....: R. Arthur Gentry
Company.....: AT&T Communications
Street.....: 19th Floor 1100 Walnut
City.....: Kansas City
State.....: Mo.
Country.....: USA
Zip Code.....: 64141
Phone Number..: (816) 654-2446
Telex.....:

Contribution Abstract.....: This is a crude and rude BBS I started writing a year or so ago and have never had the time to finish it up properly. It needs ALOT of work, but since I got it started, maybe someone out there has the time to finish it up. The message bases all work as does the file encryption. Still needs file transfer.

Additional Documentation....: A single system ID of BBS.GENERAL is needed to have non system user access to the board. Each user, wether a system user or not is allowed to assign themselves a BBS "handle" and password. The board also stores such info as location, telephone no., interests, etc. and allows searches on those fields. Like I said, it's crude, but a start!

CAPS

RETURNS USER ACCOUNT INFO TO CI COMMAND FILES

L132

Contribution Name.....: CAPS
Title.....: Returns user account info to CI command Files
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. CAPS.SBMT
:02. CAPS.FTN
:03. CAPS.REL
:04. CAPS.HLP
:05. ASK.FTN
:06. ASK.REL
:07. ASK.HLP
:08. YN.FTN
:09. YN.REL
:10. YN.HLP
Operating System(s).....: RTE-6, RTE-A(may be)
Language(s).....: FTN77
Keywords.....: 1. CI
: 2. Command_files
External Support Req'd...: CI
If Re-submission, Reason.:
Contributor's Name.....: Randy Brzoskowski
Company.....: Johnson Wax
Street.....: 1525 Howe Street m/s 273
City.....: Racine
State.....: Wis.
Country.....: USA
Zip Code.....: 53403-5011
Phone Number..: (414) 631-3479
Telex.....:
Contribution Abstract.....:
Caps is a program used to return system information to CI command files
It returns Accounts capability level (1-63) \$return1
Manager.sys (superuser flag) \$return2
DS-1000 local node number \$return5
User name w/o .group extension \$return_s

ASK will write a user supplied prompt and return the users response in \$return_s

YN will write the prompt '(YES/NO)' to the users terminal and set \$return1 to 1 for NO or 0 for Yes

See the source code or the .HLP files for more information

Additional Documentation....:

AESOP

L133

GRAPHICS APPLICATION PROGRAM

```

Contribution Name.....: Aesop
Title.....: Graphics Application Program
File Names.....:00. Rename Transfer File
                :1. 'AESOP Submission file
                :2. &LINAR Line/arc module
                :3. &PLOTT Plot module
                :4. &AREA Area module (Dummy module)
                :5. &HHELP Help module
                :6. &AESOP AESOP main
                :7. ACOMPL Command file to compile and index
                :8. \AESOP Command file to install AESOP
                :9. #AINDX INDXR command file for $AESOP
               :10. #APIDX INDXR command file for $AESOP
               :11. &ASPLO ASPLOT main
               :12. #ASPLO MLLDR command file for ASPLOT
               :13. &TEXT Text module
               :14. \ASPLO Command file to load ASPLOT
               :15. &SAVE Slide save module
               :16. #AESOP MLLDR command file for AESOP
               :17. &AIDS Aid module
               :18. &ASUBS Common subroutines
               :19. &FIGUR Figure module
               :20. "AESOP GENIX input file for HELP fuction
               :21. !AESOP Help file indexed for CMD
               :22. #W23 link command file for A2623
               :23. #W50 link command file for W7550
               :24. &W23 A2623 source file
               :25. &W50 W7550 source file
               :26. *W23 Command file to load A2623
               :27. *W50 Command file to load W7550
               :28. AESOP AESOP program type 6 MLLDR file
               :29. ASPLO ASPLOT program type 6 file
               :30. &FLNAM Create SDA file name.
               :31. [AESOP Soft key doc. file
Operating System(s).....: RTE-6
Language(s).....: FTN77
Keywords.....: 1. Graphics
External Support Req'd...: Graphics/1000-II(AGP,DGL),Fortran 77 (FTN7X)

```

If Re-submission, Reason.:

This is a re-submission of the AESOP program which was on CSL-1000 Rev. 2433 original submitted by Bellevue Technical SEO of Hewlett Packard Co.. This version has been updated to work with GRAPHICS-1000 version 2.0. Also, a help module was added and some other minor modifications were made.

```

Contributor's Name.....: Randy Brzozkowski
Company.....: Johnson Wax
Street.....: 1525 Howe Street m/s 273
City.....: Racine
State.....: Wisconsin
Country.....: USA
Zip Code.....: 53403
Phone Number...: (414) 631-3479

```

Contribution Abstract.....:

The primary function of the Aesop software package is a replacement for the BRUNO package on the HP1000 computer. This package provides a tool for the development of overhead slides. Aesop allows for the manufacture of general presentation posters and flyers. The basic printing mechanisms for the slides and posters are the HP plotters.

The current version of Aesop can only be run on an E or F series HP1000 computer. The software package requires RTE-6/VM operating system to provide large program capability. The software utilizes the Advanced Graphics package of GRAPHICS/1000-II for supportable graphics and device independence. At least a 61 page memory partition is required to run this program as is (disc nodes and VMA) more will be needed if EMA and memory nodes are used.

Note:

- 1) Currently there is no area fill or area move, delete or clone.
- 2) The LINE/ARC module was originally intended to utilize forms and and block mode, time constraints did not allow this to happen.
- 3) AESOP will only access FMGR type files. To access CI and FMGR files the method of passing the runstrings must be changed and some internal arrays may need to be enlarged.

Aesop is a softkey driven system with some functions incorporated into a forms mode of operation. The following run command should be used;

```

RU,AESOP,crt,plotter,digitizer,term LU,plot LU,digit LU
where
crt = crt WSP name
plotter = plotter WSP name
digitizer = digitizer WSP name

```

Defaults are:
RU,AESOP,A2623,W7550,D2623,1,38,1

The program ASPLOT does the actual plotting of the slide and can be run independently from AESOP. The following run command should be used.

```

RU,ASPLO,namr,flag,plotter lu
where:
namr = slide or batch file namr
flag = 1 or 2 for slide or batch file
plotter = plotter WSP name
plotter lu = logical unit number of plotter

```

Additional Documentation....:

Loading Aesop:
 AGP of GRAPHICS/1000-II must be loaded as required for the supported graphics devices attached to the system. For example: module ZMNTR and all necessary WSP's must be loaded as shown in the AGP documentation. If a 2508 line printer is to be utilized, then RTRAN program must be loaded as defined in the Device Handlers documentation.

The program DLX(from the Software Service Kit for SE's) and CMD must be loaded.

The complete AESOP system can be compiled and loaded using the command file \AESOP. This file as well as all other command files will need the Crn references modified. At present they are looking for crn 60.

The source code may be recompiled and indexed using the FMGR command file ACOMPL.

The file "AESOP contains an explanation of the softkeys to be used as an input file for GENIX so the \AESOP help fule can be created. See &HHELP source for more info.

 SETTIME

L134

 AUTOMATIC-TIME SETTING UTILITY

```

Contribution Name.....: SETTIME
Title.....: Automatic-time setting utility
File Names.....: 00. Rename Transfer File
                  01. SETTIME.SBMT
                  02. SETTIME.FTN
                  03. Settime.Rel
                  04. TIMELOG.FTN
                  05. Timelog.Rel
Operating System(s).....: RTE A, 6
Language(s).....: FORTRAN 77
External Support Req'd...: none
If Re-submission, Reason.:
Keywords.....: 1. TIME
                2. BOOT-UP
Contributor's Name.....: Rich Mirdas
Company.....: GM-HUGHES ELECTRONICS CORPORATION
Street.....: 6155 El Camino Real
City.....: Carlsbad
State.....: CA
Country.....: USA
Zip Code.....: 92008
Phone Number...: (619) 931-3000
Contribution Abstract.....: Automatically sets system time on bootup
                            from HP59309A HPIB clock. Maintains a
                            timelog file on disk to prevent time ever
                            being accidentally set backwards.
Additional Documentation....: Source code is heavily commented.
  
```

 MUXA

L135

 DISPLAY/SET 12040 MULTIPLEXOR PORT STATUS

```

Contribution Name.....: MUXA
Title.....: Display/set 12040 multiplexor port status
File Names.....: 00. Rename Transfer File
                  01. MUXA.SBMT Submission File
                  02. MUXA.FTN Source file
                  03. MUXA.REL Relocatable file
                  04. MUXA.LOD Link command file
Operating System(s).....: RTE-A
Language(s).....: FORTRAN
Keywords.....: 1. MULTIPLEXOR
                2. STATUS
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Richard Dreze
Company.....: Universite Catholique de Louvain
                  Laboratoire du Genie Civil
                  Place du Levant, 1
City.....: B-1348 Louvain-la-Neuve
State.....:
Country.....: Belgium
Zip Code.....: 1348
Phone Number...: (10) 432112
Telex.....:
Contribution Abstract.....: This program allows the operator to
                            interactively set the parameters of a mux LU such as, baud rate, parity,
                            handshake, type-ahead mode, and so on.
                            It also displays the current configuration of a mux LU.
Calling sequence : RU MUXA
Additional Documentation....: -
  
```

 SPS

L136

 CURRENT SPOOL STATUS REPORT (LIKE SP,ST)

```

Contribution Name.....: SPS
Title.....: Current spool status report (like SP,ST)
File Names.....: 00. Rename Transfer File
                  01. SPS.SBMT Submission File
                  02. SPS.FTN Source file
                  03. SPS.REL Relocatable file
                  04. SPS.LOD Link command file
Operating System(s).....: RTE-A
Language(s).....: FORTRAN
Keywords.....: 1. SPOOLING
                2. STATUS
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: Richard Dreze
  
```

Company.....: Universite Catholique de Louvain
 Laboratoire du Genie Civil
 Street.....: Place du Levant, 1
 City.....: B-1348 Louvain-la-Neuve
 State.....:
 Country.....: Belgium
 Zip Code.....: 1348
 Phone Number...: (10) 432112
 Telex.....:
 Contribution Abstract.....: This program reports the current status
 of the spool system in a more compact presentation than the standard
 SP,ST command. Outspool files are also grouped by outspool LU.
 Calling sequence : RU SPS
 Additional Documentation.....: -

 DBCRN

L137

CHANGE CARTREF OF IMAGE DATA SETS AND ROOT FILE

Contribution Name.....: DBCRN
 Title.....: Change cartref of IMAGE data sets and root file
 File Names.....: 00. Rename Transfer File
 : 01. DBCRN.SBMT Submission File
 : 02. DBCRN.FTN Source file
 : 03. DBCRN.REL Relocatable file
 : 04. DBCRN.LOD Link command file
 Operating System(s).....: RTE-A (probably RTE-6)
 Language(s).....: FORTRAN, IMAGE/1000-II
 Keywords.....: 1. IMAGE
 External Support Req'd...:
 If Re-submission, Reason...:
 Contributor's Name.....: Richard Dreze
 Company.....: Universite Catholique de Louvain
 Laboratoire du Genie Civil
 Street.....: Place du Levant, 1
 City.....: B-1348 Louvain-la-Neuve
 State.....:
 Country.....: Belgium
 Zip Code.....: 1348
 Phone Number...: (10) 432112
 Telex.....:
 Contribution Abstract.....: This program changes the CRN of IMAGE/1000-II
 data sets without using the standard DBULD/DBDS/DBLOD procedure.
 Calling sequence : RU,DBC RN
 or
 RU,DBC RN,DATA-BASE,NEW_CRN
 where DATA-BASE = DB name
 (e.g. INVENT:3334:12)
 NEW_CRN = new crn for ALL the data sets
 and root file



Notes : the program does not work with DB distributed on more than
 one cartridge, but it can be easily adapted if needed.
 the program does not work with the revision 4.0 of
 IMAGE/1000-II.

Additional Documentation.....: -

 RTE-A UTILITIES

L138

MISCELLANEOUS RTE-A UTILITIES

Contribution Name.....: RTE-A Utilities
 Title.....: Miscellaneous Rte-A Utilities
 File Names.....: 00. Rename Transfer File
 : 01. RTEA UTIL.SBMT
 : 02. LASER.FTN
 : 03. LASER.REL
 : 04. MESSAGE.FTN
 : 05. MESSAGE.REL
 : 06. REBOOT.FTN
 : 07. REBOOT.LOD
 : 08. REBOOT.REL
 : 09. REBOOT.VCP.MAC
 : 10. REBOOT.VCP.REL
 : 11. SEND.FTN
 : 12. SEND.REL
 : 13. SETUPDLLIST.FTN
 : 14. SETUPDLLIST.REL
 : 15. SETUSERS.DOC
 : 16. SETUSERS.FTN
 : 17. SETUSERS.REL
 : 18. SWEEP.FTN
 : 19. SWEEP.LOD
 : 20. SWEEP.REL
 : 21. VCP.FTN
 : 22. VCP.REL
 Operating System(s).....: RTE-A, RTE-6 ??
 Language(s).....: Fortran 77, Macro
 Keywords.....: 1. Laserjet
 : 2. Boot-up
 : 3. Logon/Logoff
 : 4. Directory
 External Support Req'd...: None
 If Re-submission, Reason...:
 Contributor's Name.....: Richard E. Alm
 Company.....: Singer / Kearfott
 Street.....: 30 Continental Drive
 : Mail Stop 15A03
 City.....: Wayne
 State.....: NJ
 Country.....: USA
 Zip Code.....: 07470

Phone Number...: 201-633-4581
 Telex.....: ..
 Contribution Abstract.....: System Management Utilities
 Additional Documentation.....: ..

LASER.FTN - Print 2 Pages on same Physical Page
 LASER.REL Needs Legal Elite Cartridge for Laserjet

MESSAGE.FTN - Send user a message on Function key lines
 MESSAGE.REL 262X of 239X series only
 SEND.FTN
 SEND.REL

REBOOT.FTN - Reboot A series computer from any port
 REBOOT.LOD
 REBOOT.REL
 REBOOT_VCP.MAC
 REBOOT_VCP.REL

SETUSERS.DOC - Change Limit of # of users what can logon untill next boot
 SETUSERS.FTN
 SETUSERS.REL

SWEEP.FTN - Adapted from NSWEEP on CP/M
 SWEEP.LOD Utility to organize Directories
 SWEEP.REL
 SETUPDLLIST.FTN
 SETUPDLLIST.REL

VCP.FTN - Disable Use of VCP on A series while maintaining
 VCP.REL a back door for Manager to logon

 SKD_DBSAVE

L139

SAVE AN IMAGE/1000-I DATA BASE IN DBBLD FORMAT

Contribution Name.....: SKD_DBSAVE
 Title.....: Save an Image/1000-I Data Base in DBBLD format
 File Names.....: 00. Rename Transfer Files
 : 01. IMAGE I UTIL.SBMT
 : 02. SKD_DBSAVE.FTN
 : 03. SKD_DBSAVE.REL
 : 04. SKD_DBSAVE_SUBS.FTN
 : 05. SKD_DBSAVE_SUBS.REL

Operating System(s).....: RTE-A , RTE-6 ???
 Language(s).....: Fortran 77
 Keywords.....: 1. IMAGE
 : 2. BACKUP

External Support Req'd...: None
 If Re-submission, Reason..: ..

Contributor's Name.....: Richard E. Alm & Lew Metzger
 Company.....: Singer / Kearfott
 Street.....: 30 Continental Drive
 : Mail Stop 15A03
 City.....: Wayne
 State.....: NJ
 Country.....: USA
 Zip Code.....: 07470
 Phone Number...: 201-633-4581
 Telex.....: ..

Contribution Abstract.....: ..
 This program will take an existing Image/1000-I Data Base and save it to
 a file in a format that can then be edited and reloaded into Image through
 DBBLD.

 ORCAM

L140

DIS-ASSEMBLER FOR FILES IN NEW FORMAT

Contribution Name.....: ORCAM
 Title.....: Dis-assembler for files in new format
 File Names.....: 00. Rename Transfer File
 : 01. ORCAM.SBMT Submission file
 : 02. ORCAM.FTN
 : 03. ORCAM.REL
 : 04. ABSOL.MAC
 : 05. ABSOL.REL
 : 06. FF4F.REL
 : 07. ORCAM.LOD LINK COMMAND FILE
 : 08. ORCAM.INCF COMMON BLOCK
 : 09. ORCAM.CMD COMPILE AND LOAD
 : 10. ORCAM ORCAM HELP FILE

Operating System(s).....: RTE-6, RTE-A
 Language(s).....: MACRO
 Keywords.....: 1. INVERSE

External Support Req'd...: ..
 If Re-submission, Reason..: With the original contributor's permission,
 bugs were corrected, and the program
 was modified to handle CI files.

Contributor's Name.....: Robert Meldrum
 Company.....: Telesat Canada
 Street.....: 333 River Road
 City.....: Ottawa
 State.....: Ontario
 Country.....: Canada
 Zip Code.....: K1N 8A9
 Phone Number...: 613-746-5920(X699)

Contribution Abstract.....: To use
 ORCAM relocatable filesdesc list_lu pseudo_source-filesdesc flags
 where flags are
 T Flag gives ENT/EXT Tables
 I Flag gives Macro ,I instead of @ for indirect
 D Flag gives DEBUG mnemonic tables
 (Flags may be in any order)

Additional Documentation.....: ..
 See ORCAM help file

```

Contribution Name.....: COMMON MANAGER
Title.....: Multiple common-area manager
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. &**COM
                  :02. &**COM
                  :03. &XXCOM
                  :04. &COMIO
                  :05. ^LIB
                  :06. &SPCOM
                  :07. &NGCOM
                  :08. &HEX2
                  :09. &FNAME
                  :10. &REQST
                  :11. &SPOOL
                  :12. &SPLLU
                  :13. &NGF
                  :14. &NGBRK
                  :15. &NGTRC
                  :16. &NGLOG
                  :17. AACOM
                  :18. AAVAR
                  :19. &AACOM
Operating System(s).....: RTE-6/VM
Language(s).....: FTN7X, MACRO
Keywords.....: 1. COMMON
               : 2. MANAGEMENT
External Support Req'd...: DECIMAL STRING LIBRARY (XDECAR)
               : SPOOLER
If Re-submission, Reason.: N/A
Contributor's Name.....: ROBERT NIEKAMP
Company.....: HEWLETT PACKARD
Street.....: 1001 E. 101 ST. TERR.
City.....: KANSAS CITY
State.....: MISSOURI
Country.....: USA
Zip Code.....: 64131
Phone Number...: (816) 941-0411
Telex.....:
Contribution Abstract.....:
THIS PROGRAM IS USED TO SHARE COMMON ELEMENTS OF SINGLE WORD DATA
BETWEEN COOPERATING PROGRAMS WITHOUT THE NEED FOR SYSTEM COMMONS
OR SHARED EMA (ALLOWING THESE RESOURCES TO BE USED FOR OTHER
PURPOSES). TWO AREAS OF 256 WORDS HAVE BEEN ALLOCATED PER MANAGER
PROCESS. THE FIRST IS INITIALIZED FROM A DISC FILE **COM WITH
LABELS CONTAINED IN **VAR. THE SECOND AREA IS INITIALIZED TO ZEROS
AND IS MEMORY BASED ONLY.
Additional Documentation....: FILES: &AACOM, AACOM, AND AAVAR ARE
PROVIDED AS AN EXAMPLE.

&**COM IS A TEMPLATE OF A COMMON MANAGER PROCESS. COPY AND EDIT
THIS FILE TO CREATE AN UNIQUE MANAGER. (IE 1$X/**COM/AACOM/)

** NOTE: XX MAY NOT BE USED -- IT IS RESERVED FOR THE SPECIAL MANAGER.

&AACOM AND OTHER COMMON MANAGERS MUST BE LOADED AS "DON'T COPY".
IT IS BEST TO LOAD THESE FILES AS PERMANENT.
FOR BEST RESULTS INCLUDE A RUN STRING IN THE WELCOM FILE.
:SYRU,AACOM,-1AACOM:-4:86

** NOTE: THE FILES AACOM AND AAVAR MUST BE ON A FMGR CARTRIDGE.

&XXCOM IS A SPECIAL VERSION OF A COMMON MANAGER IN THAT IT ALLOWS
MODIFICATION OF ANY DISC COMMON CONTROLLED BY A &**COM MANAGER.

THE TERM SUBSYSTEM REFERS TO THE TWO CHARACTERS THAT REPLACE **.

WHEN ASKED Fnr A VARIABLE NUMBER YOU MAY ENTER :ALL TO GET A SPOOLED
LISTING TO LU6. ENTERING A NUMBER WILL DISPLAY AND ALLOW MODIFICATION.
ENTER :EX TO QUIT XXCOM.

&COMIO IS THE USER INTERFACE TO A PARTICULAR MANAGER AND MUST BE
LOADED WITH THE USERS PROGRAM.

SUPPORT FILES:
&NGLOG - NO.GO LOG AND INTERNAL COMMON (INCLUDE IN MAIN CODE SPACE)
&SPLLU - SPOOLER COMMON (INCLUDE IN MAIN CODE SPACE)
&NGF - NO.GO ERROR CHECK
&NGTRC - NO.GO TRACE BACK
&NGBRK - NO.GO BREAK DETECTION
&SPOOL - SPOOLER INTERFACE
&FNAME - FILE NAME CLONE
&HEX2 - CONVERT 8 BIT DECIMAL TO 2 CHAR HEX
&REQST - RESPONCE REQUESTER (USE WITH HP TERMINALS)

^LIB - COMMAND FILE FOR MERGING THE ABOVE SUPPORT FILES AND COMIO
EDIT TO CHANGE THE CARTRIDGE

**VAR IS AN EDIT TYPE FILE WHICH IS USED TO COMMENT AND ENABLE
A PARTICULAR ELEMENT OF THE DISC COMMON AREA.
(EXAMINE AAVAR FOR DETAILS)

**COM IS A TYPE 2 FILE, RECORD LENGTH 1, SIZE 2 FOR 256 ELEMENTS.

THESE 2 FILES MUST BE CREATED BY THE USER FOR EACH MANAGER INUSE
AND MUST BE ON A FMGR CARTRIDGE.
    
```

```

Contribution Name.....: QUIP
Title.....: Batch job processing for RTE-A VC+
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. QUIP_SBMT
                  :02. TX_QUIP.DOC
                  :03. TX_EXMP.DOC
    
```



```

:04. QU_RELO.CMD
:05. QU_LIBR.CMD
:06. QU_LMRG.CMD
:07. QU_PROG.CMD
:08. QU_MOVE.CMD
:09. QUIP_HELP
:10. QUIP.FTN
:11. IQUIP.FTN
:12. TQUIP.FTN
:13. QUEJB.FTN
:14. QUEJB.COM
:15. EXCJB.FTN
:16. EXCJB.COM
:17. PRTJB.FTN
:18. JOBJB.FTN
:19. UHELP.FTN
:20. INDXH.FTN
:21. LOGJB.FTN
:22. PUTMP.FTN
:23. QF_SUBR.FTN
:24. QM_SUBR.MAC
:25. QUIP.REL
:26. IQUIP.REL
:27. TQUIP.REL
:28. QUEJB.REL
:29. EXCJB.REL
:30. PRTJB.REL
:31. JOBJB.REL
:32. UHELP.REL
:33. INDXH.REL
:34. LOGJB.REL
:35. PUTMP.REL
:36. QF_SUBR.REL
:37. QM_SUBR.REL
:38. $*QUIP.LIB
Operating System(s)..... RTE-A VC+
Language(s)..... Ftn7x and Macro
Keywords..... 1. BATCH
                2. SPOOLING
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) 255 2122
Telex.....
Contribution Abstract.....
Complete batch job processing sub-system for RTE-A VC+ systems.

Features:
Up to four jobs may be active at the same time
  Two processing
  Two printing (If you have two printers)
Up to 40 jobs may be queued at one time
Job prioritizing
Time scheduling of processing and/or printing allowed
Printer output re-direction
Translates RTE-6 FMGR command files to RTE-A CI command files
  (Although some FMGR commands are restricted.)
Permits concurrent scheduling of jobs requiring printer forms
change (like 1 part to 4 part paper)
Aids in dynamic programmatic construction of job control files
at user request time.
  (It'll take some time to get the hang of this part.)
Complete control over jobs with interactive management program
1: Job processing control
  Hold, Abort, De-queue, and Re-start
2: Job printing control
  Hold, Abort, De-queue, Re-Start
  Page reprint, Report Reprint, and Print suspend
3: Job parameter change capabilities
  Priority, printer, forms, and reset process / print times
4: Job queuing for processing or printing
5: Complete status information display
6: On-line help command help
7: Command stack

Cost to your system:
Two dummy LUs
CI directory /QUIP
Some space on an FMGR LU
Two days (max) to install (Should only take a couple of hours)

Additional Documentation.... See file TX_QUIP.DOC

```

BLDSCRN

L143

SCREEN/SOFTKEY HANDLER FOR 2627/2397 TERMINALS

```

Contribution Name..... BLDSCRN
Title..... Screen/Softkey Handler for 2627/2397 Terminals
File Names.....:00. Rename Transfer File
                :01. BLDSCRN.SBMT
                :02. bldscrnl.pas
                :03. bldkeyl.pas
                :04. bldscrnl.rel
                :05. bldkeyl.rel
                :06. readme.doc
Operating System(s)..... RTE-A
Language(s)..... Pascal
Keywords..... 1. SOFTKEYS
                2. TERMINAL
External Support Req'd...
If Re-submission, Reason.:
Contributor's Name..... Roger Arbogast
Company..... DOD
Street..... 9800 Savage Rd.
City..... Ft. Meade
State..... MD
Country..... USA
Zip Code..... 20755

```

Phone Number...: 301-688-7806
 Telex.....:
 Contribution Abstract.....:
 Programs to handle HP2627 and HP2397 screen formatting and softkey
 definitions : uses color capabilities og these terminals.
 Additional Documentation....: Readme.doc

 HIDE

L146

 3-DIMENSIONAL PLOTS WITH HIDDEN-LINE REMOVAL

Contribution Name.....: HIDE
 Title.....: 3-Dimensional Plots with Hidden-Line Removal
 File Names.....: 00. Rename Transfer File
 : 01. HIDE.SBMT
 : 02. HIDE PLOT10.FTN
 : 03. PDATA PLOT10.FTN
 Operating System(s).....: RTE-6VM RTE-6CI
 Language(s).....: FORTRAN7X
 Keywords.....: 1. GRAPHICS
 : 2. PLOTTING
 External Support Req'd...:
 If Re-submission, Reason...: TEKTRONICS PLOT10 LIBRARY
 Contributor's Name.....: S.L. Chazanoff
 Company.....: Jet Propulsion Laboratory
 Street.....: 4800 Oak Grove Dr.
 City.....: Pasadena
 State.....: CA.
 Zip Code.....: 91109
 Phone Number...: (818) 354-2134
 Telex.....:

Contribution Abstract.....: HIDE plots 3 dimentional plots along lines
 of constant Z with hidden lines removed. At the user option HIDE will
 shift the X axis left right or not at all for each new Z line plotted.
 That is the good news. The bad news is after much fighting with AGP etc.
 I was forced to use Plot10 for the graphics. The original program was
 lifted from the ACM Collected Algorithms and had Univac Calcomp calls.
 HIDE includes a demonstration mainline program.

Additional Documentation....: Due to the origin of the program it is
 extremely well documented.

 SPACE

L145

 SPACE INVADERS GAME

Contribution Name.....: SPACE
 Title.....: Space Invaders Game
 File Names.....: 00. Rename transfer file.
 : 01. SPACE-INVADERS.SBMT - Submission file
 : 02. SPACE-INVADERS.FTN - FORTRAN Source
 : 03. SPACE-INVADERS.REL - Relocatable
 : 04. SPACE-INVADERS.LOD - LINK Command
 : 05. SPHELP - Help file
 Operating System(s).....: RTE-4B, RTE-6/VM
 Language(s).....: FTN4X
 Keywords.....: 1. Games
 : 2. Graphics
 : 3. Demo
 External Support Req'd...:
 If Re-submission, Reason...:
 Contributor's Name.....: Steve Beattie
 Company.....: Hewlett-Packard
 Street.....:
 City.....:
 State.....: CA.
 Zip Code.....:
 Phone Number...:
 Telex.....:

Contribution Abstract.....:
 This program is an implimentation of space invaders on a HP 2647A or 2648A
 Graphics Terminal. The original version was written in HP 2647A BASIC and
 would only run on that terminal.

The concept of this game came from that of the BASIC program but version
 was written in Fortran 4X and was designed from the ground up. One can
 win this game by shooting down all invaders (400 of them). There are 10
 levels of skill and as the games progresses the invaders get smaller,
 move faster and faster, and shoot faster and faster.

Additional Documentation....:

Copy SPACE.HLP to a FMGR cartridge and call it SPHELP.

 WARP

L146

 GAME OF WARP

Contribution Name.....: WARP
 Title.....: Game of Warp
 File Names.....: 00. Rename transfer file.
 : 01. WARP.SBMT - Submission file
 : 02. WARPMAIN.REL - Main program
 : 03. WARPSUB1.REL - Subroutines
 : 04. WARPSUB2.REL - Subroutines
 : 05. WARPSUB3.REL - Subroutines
 : 06. WARPSUB4.REL - Subroutines
 : 07. WARPSUB5.REL - Subroutines
 : 08. WARPSUB6.REL - Subroutines
 : 09. WARPSUB7.REL - Subroutines
 : 10. WARPSUB8.REL - Subroutines
 : 11. WARP.LOD - LINK command
 : 12. WARPMOD.LOD - Relink command
 : 13. WARPLOAD.CMD - Load command
 : 14. WARP.DAT - Data file
 : 15. WARPDATA.ASC - ASCII database

```

: 16. WARPDATA.BIN - Binary database
: 17. WARPNOTE.TXT - Information
: 18. WARPSAVE - Data file
: 19. MESSAGE - Data file
Operating System(s)..... RTE-A VC+
Language(s)..... PASCAL
Keywords..... 1 Games
External Support Req'd.... CDS PASCAL library
If Re-submission, Reason.:
Contributor's Name..... Steve Beattie
Company..... Hewlett Packard
Street.....
City.....
State..... CA.
Zip Code.....
Phone Number.....
Telex.....
Contribution Abstract.....
This is some kind of fancy adventure game. It requires a lot of memory
on a A-series computer (350+ pages) it works ok with DSD 4.0. You must
have the VC+ package installed. Read the file WARPNOTE.TXT for more
information.
Additional Documentation....:

```

CONSOLE

L147

LOG ONTO SYSTEM SESSION

```

Contribution Name..... CONSOLE
Title..... Log onto System Session
File Names..... 00. Rename transfer file.
: 01. CONSOLE.SBMT Submission file
: 02. CONSOLE.FTN - Source file
: 03. CONSOLE.REL - Relocatable
: 04. CONSOLE.LOD - LINK command
Operating System(s)..... RTE-A
Language(s)..... FTN7X
Keywords..... 1. Session
: 2. Logon/Logoff
External Support Req'd.... VC+
If Re-submission, Reason.:
Contributor's Name..... Steve Beattie
Company..... Hewlett-Packard
Street.....
City.....
State..... CA.
Zip Code.....
Phone Number.....
Telex.....
Contribution Abstract.....
This program allows a superuser to log onto a system session at the
system console. It should normally be used by the system manager.
Additional Documentation....:

```

CRPATH

L148

CREATE DIRECTORY PATH

```

Contribution Name..... CRPATH
Title..... Create Directory Path
File Names..... 00. Rename transfer file.
: 01. CRPATH.SBMT Submission file
: 02. CRPATH.FTN - Source file
: 03. CRPATH.REL - Relocatable
: 04. CRPATH.LOD - LINK command
Operating System(s)..... RTE-6/VM, RTE-A
Language(s)..... FTN7X
Keywords..... 1. Directory
: 2. Path
External Support Req'd.... None
If Re-submission, Reason.:
Contributor's Name..... Steve Beattie
Company..... Hewlett Packard
Street.....
City.....
State..... CA.
Zip Code.....
Phone Number.....
Telex.....
Contribution Abstract.....
This program creates all directories along a specified path.
Syntax: CRPATH path
If 'path' does not begin with '/' then create the path from
current working directory
else create path starting from /.
1. Get working directory.
2. FOR each directory in the path do
try to create the directory
ignore error = -208 (duplicate directory)
Additional Documentation....:

```

CRYPT

L149

ENCRYPT/DECRYPT A FILE

```

Contribution Name..... CRYPT
Title..... Encrypt/Decrypt a File
File Names..... 00. Rename transfer file.
: 01. CRYPT.SBMT Submission file
: 02. CRYPT.FTN - Source file
: 03. CRYPT.REL - Relocatable
: 04. CRYPT.LOD - LINK command

```

```

Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN77
Keywords.....: 1. Encryption
                2. Security
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program will encrypt or decrypt a file using a key. The program can
be run multiple times using different keys. The process is reversed
to restore the original file. WARNING: The original file is destroyed
and replaced with the encrypted version. If you forget the key, there
is no way to restore the original data! Run the program as follows:

CI> Crypt <File> <{key1} {key2} {key3}

Additional Documentation....:
CO,CRYPT.HLP,CRYPT::HELP for on line help.

```

EDIT_KEYS

L150

SET UP FUNCTION KEYS AND RUN EDIT

```

Contribution Name.....: EDIT_KEYS
Title.....: Set Up Function Keys and Run EDIT
File Names.....: 00. Rename transfer file.
                01. EDIT_KEYS.SBMT - Submission file
                02. EDIT_KEYS.FTN - Source file
                03. EDIT_KEYS.REL - Relocatable
                04. EDIT_KEYS.LOD - LINK command
                05. OFF_EDIT.FTN - Remove EDITKEYS
                06. OFF_EDIT.REL - Relocatable
                07. OFF_EDIT.LOD - LINK command
Operating System(s).....: RTE-6/VM, RTE-A
Language(s).....: FTN77
Keywords.....: 1. Editor
                2. Softkeys
External Support Req'd...: 262x terminal
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
EDITKEYS (ED) sets up the function keys on a 262x terminal and runs
EDIT/1000. The most frequently used functions can be entered by pressing
a single key. See source listing for a list of keys available. The OFF
program removes ED from an ID segment.

Additional Documentation....:

```

FLUSH

L151

FORCE SWAPOUT OF PROGRAMS

```

Contribution Name.....: FLUSH
Title.....: Force Swapout of Programs
File Names.....: 00. Rename transfer file.
                01. FLUSH.SBMT - Submission file
                02. FLUSH.FTN - Source file
                03. FLUSH.REL - Relocatable
                04. FLUSH.LOD - LINK command
Operating System(s).....: RTE-A
Language(s).....: FTN77
Keywords.....: 1. System
                2. Partition
                3. DS
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program forces all programs in dynamic memory to be swapped out
to the SWAP file. It is mainly for DS monitors.

Additional Documentation....:

```

KILL

L152

KILL A GROUP OF SESSIONS

```

Contribution Name.....: KILL
Title.....: Kill a Group of Sessions
File Names.....: 00. Rename transfer file.
                01. KILL.SBMT - Submission file
                02. KILL.FTN - Source file
                03. KILL.REL - Relocatable
                04. KILL.LOD - LINK command
Operating System(s).....: RTE-A
Language(s).....: FTN7X

```

```

Keywords.....: 1. Session
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program will kill any session (either active or orphaned). A session
is orphaned if there are no active processes associated with the session.
The session numbers are passed as run parameters. Kill does a 'soft'
kill, i.e., it will make the session non-interactive if there are
any active programs, unless the second or third parameter is '!'.
If the second parameter is a session number, then kill is attempted
on all sessions in the INCLUSIVE range.

SYNTAX : KILL session1 [session2] [[]]

options: ! do a hard kill on specified session;
        session2 implies a range of sessions (session1..session2)

Additional Documentation....:

```

NUSERS

L153

DISPLAY NUMBER OF USERS

```

Contribution Name.....: NUSERS
Title.....: Display Number of Users
File Names.....: 00. Rename transfer file.
                01. NUSERS.SBMT - Submission file
                02. NUSERS.FTN - Source file
                03. NUSERS.REL - Relocatable
                04. NUSERS.LOD - LINK command
Operating System(s)....: RTE-A
Language(s).....: FTN7X
Keywords.....: 1. Session
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program displays the number of users currently logged on the system.

Additional Documentation....:

```

REMOTE_LOG

L154

DS/1000-IV REMOTE LOG STATUS

```

Contribution Name.....: REMOTE LOG
Title.....: DS/1000-IV Remote Log Status
File Names.....: 00. Rename transfer file.
                01. REMOTE LOG.SBMT - Submission file
                02. REMOTE LOG.FTN - Source file
                03. REMOTE LOG.REL - Relocatable
                04. REMOTE LOG.LOD - LINK command
Operating System(s)....: RTE-6/VM, RTE-A
Language(s).....: FTN7X
Keywords.....: 1. DS
                2. Status
External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: Steve Beattie
Company.....: Hewlett-Packard
Street.....:
City.....:
State.....: CA.
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This program gives you the status of a remote node on a DS/1000-IV
network via IOMAP. Run as follows:

    CI> RLOG <Remote node> <Security code> <Remote mapping Lu>

Additional Documentation....:

```

UP

L155

MOVE UP DIRECTORY PATH

```

Contribution Name.....: UP
Title.....: Move Up Directory Path
File Names.....: 00. Rename transfer file.
                01. UP.SBMT - Submission file
                02. UP.FTN - Source file
                03. UP.REL - Relocatable
                04. UP.LOD - LINK command
                05. HOME.FTN - Source file
                06. HOME.REL - Relocatable
                07. HOME.LOD - LINK command
                08. HOME.HLP - On-line help
Operating System(s)....: RTE-6/VM, RTE-A
Language(s).....: FTN7X

```

Keywords.....: 1. Directory
 : 2. Path
 External Support Req'd...: None
 If Re-submission, Reason.:
 Contributor's Name.....: Steve Beattie
 Company.....: Hewlett Packard
 Street.....:
 City.....:
 State.....: CA.
 Zip Code.....:
 Phone Number...:
 Telex.....:
 Contribution Abstract.....:
 Program UP (^) moves you up to the parent directory. Program HOME (^)
 moves you up two directories. It saves you some typing.
 Additional Documentation....:
 CO,HOME.HLP,^:HELP for on-line help.

DYMEM

REAL-TIME WH, PA

L156

Contribution Name.....: DYMEM
 Title.....: Real-time WH,PA
 File Names.....: 00. Rename Transfer File (Interex-supplied)
 : 01. DYMEM.SBMT Submission file
 : 02. DYMEM.FTN Source
 : 03. DYMEM.REL Relocatable
 : 04. DYMEM.CMD CI command file
 : 05. DYMEM.LOD LINK command file
 Operating System(s).....: RTE-A only !
 Language(s).....: FTN7X
 Keywords.....: 1. SYSTEM
 : 2. MEMORY
 : 3. PERFORMANCE
 External Support Req'd...:
 If Re-submission, Reason.:
 Contributor's Name.....: Steve Kidgell
 Company.....: Rolls - Royce plc
 Street.....: PO Box 31 Raynesway
 City.....: Derby
 State.....: Derbyshire
 Country.....: UK
 Zip Code.....: DE2 8BJ
 Phone Number...: 0332 662441 ext 005
 Telex.....:
 Contribution Abstract.....:
 This program gives a real-time display of up to 20 programs in
 memory. It was originally written to display just the programs in the
 dynamic area of memory (hence the name) but has been enhanced to display
 reserved partitions as well. It is a sort of real-time WH,PA.
 Note that it will not run under RTE-IV or RTE-6 as they do not
 have dynamic memory allocation.
 Additional Documentation....:
 See RTE-A System Design Manual Chapter 11 for details of the
 memory descriptors and ID segment.

ACT6

DYNAMIC SYSTEM STATUS MONITOR

L157

Contribution Name.....: ACT6
 Title.....: Dynamic System Status Monitor
 File Names.....: 00. Rename Transfer File
 : 01. ACT6.SBMT - Submission file
 : 02. ACT6.LOD - LINK loader command file
 : 03. ACT6.REL - Main relocatable code
 : 04. GENT6.REL - Subroutine relocatable code
 Operating System(s).....: RTE-6/VM
 Language(s).....: ?? - Relocatable supplied, source not available
 Keywords.....: 1. System
 : 2. Monitor
 External Support Req'd...: PASCAL Library
 If Re-submission, Reason.:
 Contributor's Name.....: Steven R. Carter
 Company.....: Eyring Computer Systems, Inc.
 Street.....: 1450 West 820 North
 City.....: Provo
 State.....: Utah
 Country.....: USA
 Zip Code.....: 84604
 Phone Number...: 801-375-2434
 Telex.....: 882-000
 Contribution Abstract.....:
 This program provides a dynamic picture of the computer system. Status
 of each memory partition is shown, along with the amount of SAM, the
 number of id segments, the number of "jobs", etc. A very useful utility.
 Additional Documentation....:
 This program was contributed to Interex by Eyring Computer Systems, Inc.
 1450 West 820 North Provo, UT 84601 (801) 375-2434 through Scott Hill
 of Pitt-Des Moines, Inc., Des Moines, IA.
 A much enhanced version is available from Eyring Computer Systems, Inc.
 for the HP1000-A series computer.

ADVENTURE

ADVENTURE GAME

L158

Contribution Name.....: ADVENTURE
 Title.....: Adventure game

```

File Names.....:00. Rename Transfer File
:01.  ^ADVEN
:02.  &ADV01 MAIN PROGRAM SEGMENT OF ADVENTURE
:03.  &ADVX2 COMMAND DECODE SEGMENT
:04.  &ADVY2 1ST COMMAND ACTION SEGMENT
:05.  &ADV03 INITIALISATION SEGMENT
:06.  &ADV04 SUBROUTINES
:07.  &ADV05 SUBROUTINES
:08.  &ADV06 MAGIC MODE SEGMENT
:09.  &ADASM ASSEMBLER ROUTINES
:10.  &RANDM RANDOM NUMBER GENERATOR
:11.  ADVFTN FORTRAN COMPIATION TRANSFER FILE
:12.  LADVEN LOADER TRANSFER FILE
:13.  ^ADVEN LOADER COMMAND FILE
:14.  #ADVZZ DATABASE AND TEXT FILE FOR ADVENTURE
:15.  SLIBHS HAYSTACKS LIBRARY (SOME ROUTINES NEE
:16.  ZADV01
:17.  ZADVX2
:18.  ZADVY2
:19.  ZADV03
:20.  ZADV04
:21.  ZADV05
:22.  ZADV06
:23.  ZADASM
:24.  ZRANDM
:25.  ADVCOM COMMON SECTION INCLUDED IN NEW SEGME
:26.  ADVALL
:27.  &ADV07 NEW COMMANDS SEQMENT
:28.  ZADV07

Operating System(s).....: RTE 4B
Language(s).....: FTN4X,ASMB
Keywords.....: 1. GAMES
External Support Req'd...: NONE
If Re-submission, Reason.: FACILITIES ADDED AND CAVE EXPANDED
Contributor's Name.....: T LONDON
Company.....: UKSL
Street.....: KEMBLE HOUSE
: KEAN STREET
City.....: LONDON
State.....:
Country.....: ENGLAND
Zip Code.....:
Phone Number...: 01-836-8751
Telex.....:

Contribution Abstract.....:
1) IT IS ADVISABLE TO USE THE LOADER COMMAND FILE FOR THE
COMPLEX LOAD
2) IN MOST SYSTEMS LI,XLIB COULD BE REMOVED
3) WHEN RUNNING ADVEN,X,Y,Z
X INDICATES THE OUTPUT DEVICE DEFAULT YOUR TERMINAL
Y INDICATES THE CARTRIDGE FOR DATA FILES DEFAULT 3110
Z WHEN GREATER THAN 1 INITATES THE TRACE FACILITY
4) TO ENTER MAGIC MODE TYPE IN MAGIC
THE SYSTEM WILL RESPOND WITH A LONG MESSAGE (PINCHED FROM D&D)
AND A 6 DIGIT NUMBER I.E. ABCDEF
THE PASS WORD IS DEFINED AS (A+F)-(B+C+D+E) THIS CAN BE NEGATIVE

Additional Documentation....:

```

RNSTATUS

L159

CHECK RESOURCE# AND LU USAGE

```

Contribution Name.....: Rnstatus
Title.....: Check Resource# and Lu Usage
File Names.....:00. Rename Transfer File
:01. rnstatus.sbmt
:02. rnstatus.ftn
:03. getrn.mac
:04. rnstatus.rel
:05. getrn.rel
:06. rnstatus.lod

Operating System(s).....: RTE-A
Language(s).....: Ftn7x,macro
Keywords.....: 1. resource_number
: 2. status

External Support Req'd...: None
If Re-submission, Reason.:
Contributor's Name.....: T.V. Gill
Company.....: R.J. Reynolds
Street.....: QA 26-1
City.....: Winston-Salem
State.....: NC
Country.....:
Zip Code.....: 27102
Phone Number...: 919/777-5953
Contribution Abstract.....: Program to check rte-a resource # status

Additional Documentation....: None

```

LOCKEDBY?

L160

SHOW LU AND RESOURCE-NUMBER LOCKS

```

Contribution Name.....: Lockedby?
Title.....: Show LU and Resource-Number Locks
File Names.....:00. Rename Transfer File
:01. lockedby.sbmt
:02. lockedby.ftn
:03. left_justify.ftn
:04. fblnk.ftn
:05. lockedby.rel
:06. left_justify.rel
:07. fblnk.rel
:08. lockedby.lod

Operating System(s).....: RTE-A
Language(s).....: Ftn7x
Keywords.....: 1. resource_number
: 2. system_tables
: 3. status

External Support Req'd...: None
If Re-submission, Reason.:

```

Contributor's Name.....: T.V. Gill
 Company.....: R.J. Reynolds
 Street.....: QA 26-1
 City.....: Winston-Salem
 State.....: NC
 Country.....:
 Zip Code.....: 27102
 Phone Number.....: 919/777-5953
 Contribution Abstract.....: Two programs to check system
 resource# and lu locking status.
 Additional Documentation....: None

BRUNO

GRPAHICS DESIGN PROGRAM REV 3.1

L161

Contribution Name.....: BRUNO
 Title.....: Grpahics design program Rev 3.1
 File Names.....: 00. Rename Transfer File
 :01. BRUNO.SBMT
 :02. SPACE.FTN
 :03. BSUBS.FTN
 :04. BRUN0.FTN - Put font data in EMA
 :05. BRUN1.FTN - User interface and plotting
 :06. BRUN2.FTN - Save slide on disc
 :07. BRUN4.FTN - Control lines and arc
 :08. BRUN3.FTN - Control text inputs
 :09. BRUN7.FTN - Digitize on the 2648
 :10. BRUN5.FTN
 :11. ESTNG.FTN
 :12. BRUN0.FTN - Main segment
 :13. BRUN6.FTN - Control figure placing
 :14. ESCPE.FTN
 :15. COMMON.FTN
 :16. SKO.MAC
 :17. EDKEY.MAC
 :18. SK2A.MAC
 :19. FORM.MAC
 :20. SKTL.MAC
 :21. UPSHF.MAC
 :22. SKLNE.MAC
 :23. SKHV.MAC
 :24. SK2.MAC
 :25. SK1A7.MAC
 :26. SK1A.MAC
 :27. SKCIR.MAC
 :28. SKFIG.MAC
 :29. EDSFT.MAC
 :30. SKMAK.MAC
 :31. SKDEG.MAC
 :32. SKDIG.MAC
 :33. SKYN.MAC
 :34. BRUNO.LOD - Linker file
 :35. SKLIB.CMP
 :36. BRUNO.CMP - FTN77 compiler transfer file
 :37. BSUBS.CMP
 :38. SKLIB.MRG - Merge command file
 :39. SK2A.REL
 :40. UPSHF.REL
 :41. SKTL.REL
 :42. SKMAK.REL
 :43. SKLNE.REL
 :44. BRUN5.REL - Control, refresh and merge
 :45. SKFIG.REL
 :46. BRUN1.REL
 :47. BRUN2.REL
 :48. BRUN7.REL
 :49. SK1A.REL
 :50. SKDEG.REL
 :51. BRUN4.REL
 :52. SK2.REL
 :53. COMMON.REL
 :54. BRUN6.REL
 :55. SKCIR.REL
 :56. FORM.REL
 :57. BRUN3.REL
 :58. BRUN0.REL
 :59. DLTBL.REL
 :60. SPACE.REL
 :61. SK1A7.REL
 :62. SKDIG.REL
 :63. ESCPE.REL
 :64. ESTNG.REL
 :65. SKHV.REL
 :66. SKO.REL
 :67. EDKEY.REL
 :68. BRUN0.REL
 :69. EDSFT.REL
 :70. SKYN.REL
 :71. \$SKLIB.LIB
 :72. \$BSUBS.LIB - Bruno indexed library
 :73. SKLIB.LIB
 :74. \$GPS.LIB
 :75. EMCLB.LIB
 :76. SEMCLB.LIB
 :77. BSUBS.LIB
 Operating System(s).....: RTE-6, MAY BE RTE-A
 Language(s).....: MACRO, FTN77, Requires C.83 or later
 Keywords.....: 1. Graphics
 : 2. Figures
 : 3. Interactive

External Support Req'd...:
 If Re-submission, Reason...:
 Contributor's Name.....: Thomas Alkatib/David Delisle
 Company.....: Naval Ship Weapon Systems Eng. Station
 Street.....: NSWSES, CODE 4R20, BLDG 1220
 City.....: PORT HEUNEME
 State.....: CA
 Country.....: USA
 Zip Code.....: 93043
 Phone Number.....: 805/982-3303

Contribution Abstract.....:
 BRUNO is a graphics program originally designed by Hewllet Packard. Rev 3.1
 include the following enhancements:

1. Bruno can access files on both CI and FMGR volumes.

2. You can run the program from any graphics terminal connected to either back I/F card or mux channel.
3. This program has been broken down into multiple segments which will enable the user to load it by using the LINK program.
4. Bruno is much faster than the old versions due to the small size of all the segments.

Additional Documentation....:

Each subroutine is sufficiently documented within its source code, Also BRUNO.FTN has some description of the main bruno routines.

APPT

L162

AN APPOINTMENT REMINDER PROGRAM

```

Contribution Name.....: APPT
Title.....: An appointment reminder program
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. appt.sbmt
                  :02. appt.ftn
                  :03. appt.rel
                  :04. appt.lod
                  :05. lparse.ftn
                  :06. lparse.rel
                  :07. appt
                  :08. lparse
                  :09. appt.appt
Operating System(s).....: RTE-A, etc w/ CI
Language(s).....: Fortran 77
Keywords.....: 1. Calendar
                : 2. Scheduling
                : 3. Help
External Support Req'd...: none
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
Telex.....:
Contribution Abstract.....: This is a user non-friendly (intensionally)
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.
Additional Documentation....: in the help file: /HELP/APPT

```

ERR

L163

AN ERROR REPORTING PROGRAM FOR ALL HP ERRORS

```

Contribution Name.....: ERR
Title.....: An error reporting program for all HP errors
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :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. err
                  :10. lparse
                  :11. errors
Operating System(s).....: RTE-A, etc w/ CI
Language(s).....: Fortran 77
Keywords.....: 1. error
                : 2. help
External Support Req'd...: none
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
Telex.....:
Contribution Abstract.....: This is an error decoding routine which will
print an explanation of all 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 but will be
separated into separate files for RTE-A, RTE-6, RTE-IV, RTE-II in the
future.
Additional Documentation....: in the help file: /HELP/ERR

```

SUM

L164

A SIMPLE TWO-COLUMN SPREAD-SHEET SUM TOTALIZER

```

Contribution Name.....: SUM
Title.....: A simple two-column spread-sheet sum totalizer
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. sum.sbmt
                  :02. sum.ftn
                  :03. sum.rel
                  :04. sum.lod
                  :05. lparse.ftn
                  :06. lparse.rel
                  :07. sum
Operating System(s).....: RTE-A, etc w/ CI

```

```

Language(s).....: Fortran 77
Keywords.....: 1. calculator
               : 2. spread_sheet
External Support Req'd...: none
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
Telex.....:
Contribution Abstract.....: This is a simple program to add up lists of
numbers, ignoring headers and all non-numeric words. Very useful for adding
a table of quantities with associated prices. Sub totals can be displayed.
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.
Additional Documentation....: in the help file: /HELP/SUM

```

ELZAP

L165

A COMPUTERIZED BOARD GAME

```

Contribution Name.....: ELZAP
Title.....: A computerized board game
File Names.....:00. Rename Transfer File (Interex-supplied)
               :01. elzap.sbmt
               :02. elzap.ftn
               :03. elzap.rel
               :04. elzap.lod
               :05. elzap
Operating System(s).....: RTE-IV through RTE-A
Language(s).....: Fortran 77
Keywords.....: 1. games
External Support Req'd...: none
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
Telex.....:
Contribution Abstract.....: This is a board type of game played against
the computer. The object is to complete a continuous line across the terminal
screen in a horizontal direction while the computer tries to do the same
in a vertical direction.
Additional Documentation....: in the help file: /HELP/ELZAP

```



CALC

L166

A COMPUTERIZED INTERACTIVE CALCULATOR

```

Contribution Name.....: CALC
Title.....: A computerized interactive calculator
File Names.....:00. Rename Transfer File (Interex-supplied)
               :01. calc.sbmt
               :02. calc.ftn
               :03. calc.rel
               :04. calc.lod
               :05. stretch.ftn
               :06. stretch.rel
               :07. lparse.ftn
               :08. lparse.rel
               :09. hex.mac
               :10. hex.rel
               :11. calc
               :12. lparse
Operating System(s).....: RTE-A, etc
Language(s).....: Fortran, Macro
Keywords.....: 1. calculator
               : 2. interactive
External Support Req'd...: none
If Re-submission, Reason.: Many enhancements: file reading capability,
multiple equations, more error checking, CI command file interaction.
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
intrinsic, to perform number base conversion including hex and character
equivalents, to edit equations on the terminal screen, and to read
equations from a disc file. It may also be used in CI command files
to perform branches, in addition to running other programs and includes
an on-line help file.
Additional Documentation....: in the help file: /HELP/CALC

```

LOAN

L167

A MORTGAGE-LOAN ANALYSIS PROGRAM

```

Contribution Name.....: LOAN
Title.....: A mortgage-loan analysis program
File Names.....:00. Rename Transfer File (Interex-supplied)
               :01. loan.sbmt
               :02. loan.ftn
               :03. loan.lod

```

```

:04. stretch.ftn
:05. stretch.rel
:06. calc_sub.ftn
:07. calc_sub.rel
:08. lparse.ftn
:09. lparse.rel
:10. loan
:11. lparse
:12. loanpay.ftn
:13. loanpay.rel
:14. loanpay.lod
:15. loanpay
Operating System(s).....: RTE-A, etc
Language(s).....: Fortran
Keywords.....: 1. Finance
External Support Req'd...: none
If Re-submission, Reason.: Enhancements for period determinations
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 update to my original Loan program.
It uses a subroutine version of my CALC program to allow more flexibility
in entering payment periods, loan duration, etc. You can now perform
loan calculations like most Banks do!! Also: on-line help and other
program running capability. I have included an update to an early Interex
loan payment program referenced in the LOAN documentation.
Additional Documentation....: The help file /HELP/LOAN

```

DF

AN EDIT, COMPILE, LINK, & GO FACILITY

L168

```

Contribution Name.....: DF
Title.....: An edit, compile, link, & go facility
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. df.sbmt
:02. df.ftn
:03. df.rel
:04. df.lod
:05. df
Operating System(s).....:
Language(s).....:
Keywords.....: 1. Procedures
External Support Req'd...: none
If Re-submission, Reason.: More enhancements
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 utility is a program that will run
EDIT/1000 selectively, run the appropriate compiler, link the result if
it is not a subroutine, and possibly run it. This is a fast method for
developing programs - either small ones or modules of larger programs.
Additional Documentation....: the help file /HELP/DF

```

SHOOTING_STARS

STARS AND BLACK HOLES GAME

L169

```

Contribution Name.....: Shooting stars
Title.....: Stars and black holes game
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. Shooting_stars.sbmt
:02. Shooting_stars.ftn
:03. Shooting_stars.rel
:04. Shooting_stars.lod
:05. touch.ftn
:06. touch.rel
:07. lparse.ftn
:08. lparse.rel
:09. shooting_stars
Operating System(s).....: RTE-A, RTE-5, etc.
Language(s).....: Fortran 77
Keywords.....: 1. games
: 2. touch
External Support Req'd...: HP150 or HP2393 with touch screen desirable
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
Telex.....:
Contribution Abstract.....: This is a touch screen game (can also be
played without a touch screen) in which stars are destroyed thereby
creating black holes and optionally, more stars. Illustrates the use
of the touch facility and contains a complete touch screen library.
Additional Documentation....: on-line and help file: /HELP/SHOOTING_STARS

```

MAGNETIC TAPE DUPLICATOR

```

Contribution Name.....: MDUPE
Title.....: Magnetic tape duplicator
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. mdupe.sbmt
                  :02. mdupe.ftn
                  :03. mdupe.rel
                  :04. mdupe.lod
                  :05. mdupe
Operating System(s).....: RTE-A, RTE-6
Language(s).....: Fortran 77
Keywords.....: 1. magnetic_tape
                2. copy
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
Telex.....:
Contribution Abstract.....: Another magnetic tape duplicator. This is an
older program that has been is use for many years to duplicate mag tapes
with file limits, record limits, pre-positioning, error checking, and
selective rewinding. A more capable updated version is in the mill.
Additional Documentation....: /HELP/MDUPE

```

PRINTS

L171

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 (Interex-supplied)
                  :01. prints.sbmt
                  :02. prints.ftn
                  :03. prints.rel
                  :04. prints.lod
                  :05. prints
Operating System(s).....: RTE-A, RTE-6
Language(s).....: Fortran
Keywords.....: 1. printer
                2. terminal
                3. copy
External Support Req'd...:
If Re-submission, Reason.: update from an older contribution
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. Very useful when run from EDIT/1000.
Additional Documentation....: /HELP/PRINTS

```

BTDMP

L172

ANOTHER MAGNETIC DUMPING PROGRAM

```

Contribution Name.....: BTDMP
Title.....: Another magnetic dumping program
File Names.....:00. Rename Transfer File (Interex-supplied)
                  :01. btdmp.sbmt
                  :02. btdmp.ftn
                  :03. btdmp.rel
                  :04. btdmp.lod
                  :05. hpint.ftn
                  :06. hpint.rel
                  :07. ftibm.mac
                  :08. ftibm.rel
                  :09. bin.mac
                  :10. bin.rel
                  :11. hex.mac
                  :12. hex.rel
                  :13. dec.mac
                  :14. dec.rel
                  :15. ebcdh.ftn
                  :16. ebcdh.rel
                  :17. ftdec.mac
                  :18. ftdec.rel
                  :19. hptst.mac
                  :20. hptst.rel
                  :21. btdmp
Operating System(s).....: RTE-A, RTE-6
Language(s).....: Fortran, Macro
Keywords.....: 1. dump
                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
Telex.....:

```

Contribution Abstract.....: This program is a general purpose magnetic tape dumping utility. It will position a tape, then dumb user selected record sizes to any LU. The formats dumb are: ASCII; EBCDIC; HP ,DEC or IBM Floating point or integer; hex; binary; octal; byte swap. It is an older but functioning program that needs a cleaner user interface.
Additional Documentation.....: /HELP/BTDMP

MAZE

L173

A RAT IN A MAZE GAME

Contribution Name.....: MAZE
Title.....: A rat in a maze game
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. maze.sbmt
:02. maze.ftn
:03. maze.rel
:04. maze
Operating System(s).....: RTE-A, etc
Language(s).....: Fortran 77
Keywords.....: 1. games
External Support Req'd.....: none
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
Telex.....:
Contribution Abstract.....: This program will generate a maze in character form on any character oriented output device (terminals, line printers, LaserJet, etc). The user specifies the size of the maze. Very large mazes can be generated on devices that support compressed printing. There is only one path through the maze.

CALENDAR

L174

A CALENDAR PRODUCING PROGRAM WITH PICTURES

Contribution Name.....: CALENDAR
Title.....: A calendar producing program with pictures
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. calendar.sbmt
:02. calendar.ftn
:03. calendar.rel
:04. calendar.lod
:05. calendar
:06. AIR PLANE.PIC
:07. ANDY CAP.PIC
:08. ANNIE.PIC
:09. COYOTE.PIC
:10. DANCING FEET.PIC
:11. LOVE.PIC
:12. MONA.PIC
:13. NICE DAY.PIC
:14. PIC2X.PIC
:15. PS CAT.PIC
:16. ROAD RUNNER.PIC
:17. RUDE-AWAKE.PIC
:18. SNOOPY.PIC
:19. SPOOK.PIC
:20. TURTLE.PIC
:21. TWEETY.PIC
:22. XMAS.PIC
Operating System(s).....: RTE-A, etc w/ CI
Language(s).....: Fortran 77
Keywords.....: 1. calendar
External Support Req'd.....: none
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
Telex.....:
Contribution Abstract.....: This is an old program that will print onto a line printer, a calendar for either a year or a month. Each calendar has a picture, then the calendar itself. Each block in the monthly calendar may contain the day number in large or small sizes and the Julian day. The source file must be changed to include the directory name for the picture files.
Additional Documentation.....: in the help file: /HELP/CALENDAR

SCRAMBLE

L175

SCRAMBLER/UNSCRAMBLER FOR TYPE 3/4 FILES

Contribution Name.....: SCRAMBLE
Title.....: Scrambler/unscrambler for Type 3/4 files
File Names.....:00. Rename Transfer File (Interex-supplied)
:01. SCRAMBLE.SBMT
:02. \$MACRO
:03. ASHLB.LIB
:04. RANDOM.MAC
:05. RANDOM.REL
:06. README
:07. SCRAMBLE.FTN
:08. SCRAMBLE.LOD
:09. SCRAMBLE.REL
:10. UNSCRAMBLE.FTN

```

:11. UNSCRAMBLE.LOD
:12. UNSCRAMBLE.REL
Operating System(s).....:
Language(s).....: FTN7X
Keywords.....: 1. Encryption
: 2. Security
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: UK User's Group
Company.....:
Street.....:
City.....:
State.....:
Country.....:
Zip Code.....:
Phone Number.....:
Telex.....:
Contribution Abstract.....:

```

This contribution consists of two programs, SCRAMBLE and UNSCRAMBLE. File types 3/4 are scrambled into file type 1003/1004, respectively. There is a description in Italian at the head of SCRAMBLE.FTN Brief instructions are:-

CI> SCRAMBLE (or UNSCRAMBLE) <Filename or Filemask>,[<OK>]

where the 'OK' may be used to suppress CI-style asking on each file. Respond to Password? with 8 alpha characters.

The program then prompts in a similar manner to HP PU

Don't forget the password! Dont spend too long typing it in (you only have 3 seconds!).

DIGRAF1

L176

GRAPHICS ROUTINES FOR HPSPICE/DGL (PART 1/5)

```

Contribution Name.....: DIGRAF1
Title.....: Graphics routines for HPSPICE/DGL (Part 1/5)
File Names.....: 00. Rename Transfer File (Interex-supplied)
: 01. DiGraf1.SBMT submission file
: 02. XD0001
: 03. XD0002
: 04. XD0006
: 05. XD0019
: 06. XD0026
: 07. XDIDD
: 08. XDIDD2
: 09. XM0FIL
: 10. XM0FIN
: 11. XM0GFS
: 12. XM0I00
: 13. XM0I01
: 14. XM0I02
: 15. XM0I03
: 16. XM0I0T
: 17. XM0NAM
: 18. XM0NUM
: 19. XM0PLT
: 20. XMASIN
: 21. XMASOC
: 22. XMBADD
: 23. XMBFLS
: 24. XMBYTS
: 25. XMCLSF
: 26. XMCREP
: 27. XMDBEG
: 28. XMDEND
: 29. XMDRED
: 30. XMDWRT
: 31. XMERR
: 32. XMFADD
: 33. XMFERR
: 34. XMFWRT
: 35. XMGETC
: 36. XMID00
: 37. XMID01
: 38. XMID02
: 39. XMID03
: 40. XMID08
: 41. XMIFIL
: 42. XMINAS
: 43. XMLOCK
: 44. XMOPNF
: 45. XMOPSY
: 46. XMPURF
: 47. XMREAF
: 48. XMREAS
: 49. XMSEKF
: 50. XMSETC
: 51. XMSETN
: 52. XMSPCK
: 53. XMULCK
: 54. XMVWRD
: 55. XMWRIF
: 56. XMXYA1
: 57. XMXYA2
: 58. XMXYB1
: 59. XMXYB3
: 60. XMXYF1
: 61. XTOINT
: 62. XTOMAP
: 63. XTAPCO
: 64. XTAPRW
: 65. XTAPRX
: 66. XTBEGL
: 67. XTBEGL
: 68. XTBEGL
: 69. XTBEGL
: 70. XTBEGL
: 71. XTBEGL
: 72. XTBEGL
: 73. XTBEGL
: 74. XTBEGL

```

```

:75. XTDTOW
:76. XTECHO
:77. XTEDRW
:78. XTENDE
:79. XTFILL
:80. XTHCLP
:81. XTICTB
:82. XTINPG
:83. XTIPTB
:84. XTIOCP
:85. XTITOA
:86. XTIVER
:87. XILLIM
:88. XILLTO
:89. XIMVZE
:90. XIPGCP
:91. XIPHPR
:92. XIPPLM
:93. XIPRPH
:94. XIPTOD
:95. XTREX
:96. XTWTOD
:97. XZOBFI
:98. XZOBUF
:99. XZOCAT
Operating System(s).....: RTE-6
Language(s).....: FTN7X
Keywords.....: 1. Graphics
External Support Req'd...:
If Re-submission, Reason.:
Contributor's Name.....: University of Colorado
Company.....: Academic Computing Center
Street.....:
City.....:
State.....:
Country.....: USA
Zip Code.....:
Phone Number...:
Telex.....:
Contribution Abstract.....:
This contribution is the complete graphics package for HPSPICE, which
is basically the same as HP1000 Graphics/1000-II DGL, written originally
at University of Colorado under the direction of Prof. Mary Jo Coogan.
HP modified the code for HPSPICE/DGL; the HP-modified version is
the contained here (current through Rev. 2540).

```

DIGRAF2

GRAPHICS ROUTINES FOR HPSPICE/DGL (PART 2/5)

L177

```

Contribution Name.....: DIGRAF2
Title.....: Graphics routines for HPSPICE/DGL (Part 2/5)
File Names.....: 00. Rename Transfer File (Interex-supplied)
:01. DiGraf2.SBMT submission file
:02. XZOCON
:03. XZOCOR
:04. XZOCA
:05. XZOC4
:06. XZOC8
:07. XZOC8B
:08. XZODC1
:09. XZODC3
:10. XZODCD
:11. XZODD1
:12. XZODD3
:13. XZODDV
:14. XZODI1
:15. XZODI3
:16. XZODI1N
:17. XZODL1
:18. XZODL3
:19. XZODLM
:20. XZODPA
:21. XZODT4
:22. XZODT8
:23. XZOEERR
:24. XZOEVS
:25. XZOEXT
:26. XZOFBF
:27. XZOFB1
:28. XZOI00
:29. XZOI01
:30. XZOI02
:31. XZOI03
:32. XZOI05
:33. XZOI08
:34. XZOI09
:35. XZONA1
:36. XZONA3
:37. XZONAT
:38. XZONC1
:39. XZONCA
:40. XZONPA
:41. XZOPTB
:42. XZOSYS
:43. XZOWRK
:44. XZASPK
:45. XZBEGN
:46. XZBMOD
:47. XZCOL1
:48. XZCOLM
:49. XZCOLR
:50. XZCSIZ
:51. XZDCOL
:52. XZDEND
:53. XZDIN1
:54. XZDINT
:55. XZDLIM
:56. XZDPMM
:57. XZDPST
:58. XZDRAW
:59. XZEND
:60. XZ1ACS
:61. XZ1COL
:62. XZ1ES1
:63. XZ1ES3

```

```

:64. XZIESC
:65. XZIPST
:66. XZINS
:67. XZLLIM
:68. XZLOCP
:69. XZLPMM
:70. XZLSTL
:71. XZMARK
:72. XZMCUR
:73. XZMOVE
:74. XZNEWF
:75. XZOES1
:76. XZOES3
:77. XZOESC
:78. XZPGDD
:79. XZPGDI
:80. XZPICK
:81. XZPIKP
:82. XZPILS
:83. XZPLIM
:84. XZPOLY
:85. XZPPMM
:86. XZPSTL
:87. XZTEX2
:88. XZTEXT
:89. XZVIEW
:90. XZWIND
:91. &D0001
:92. &D0002
:93. &D0006
:94. &D0019
:95. &D0026
:96. &DIDD
:97. &DIDD2
:98. &MOFIL
:99. &MOFIN

```

```

Operating System(s)..... RTE-6
Language(s)..... FTN7K
Keywords..... 1. Graphics
External Support Req'd....
If Re-submission, Reason.:
Contributor's Name..... University of Colorado
Company..... Academic Computing Center
Street.....
City.....
State.....
Country..... USA
Zip Code.....
Phone Number.....
Telex.....

```

Contribution Abstract.....
This contribution is the complete graphics package for HPSPICE, which is basically the same as HP1000 Graphics/1000-II DGL written originally at University of Colorado under the direction of Prof. Mary Jo Coogan. HP modified the code for HPSPICE/DGL; the HP-modified version is the contained here (current through Rev. 2540).

DIGRAF3

L178

GRAPHICS ROUTINES FOR HPSPICE/DGL (PART 3/5)

```

Contribution Name..... DIGRAF3
Title..... Graphics routines for HPSPICE/DGL (Part 3/5)
File Names..... 00. Rename Transfer File (Interex-supplied)
:01. DiGraf3.SBMT submission file
:02. &MOGFS
:03. &MOI00
:04. &MOI01
:05. &MOI02
:06. &MOI03
:07. &MOIOT
:08. &MONAM
:09. &MONUM
:10. &MOPLT
:11. &MASIN
:12. &MASOC
:13. &MBADD
:14. &MBFLS
:15. &MBYTS
:16. &MCLSF
:17. &MCREP
:18. &MDBEG
:19. &MDEND
:20. &MDRED
:21. &MDWRT
:22. &MERR
:23. &MFADD
:24. &MFERR
:25. &MFWRT
:26. &MGETC
:27. &MID00
:28. &MID01
:29. &MID02
:30. &MID03
:31. &MID08
:32. &MIFIL
:33. &MINAS
:34. &MLOCK
:35. &MOPNF
:36. &MOPSY
:37. &MPURF
:38. &MREAF
:39. &MREAS
:40. &MSEKF
:41. &MSETC
:42. &MSETN
:43. &MSPCK
:44. &MULCK
:45. &MVWRD
:46. &MWRIF
:47. &MXYA1
:48. &MXYA2
:49. &MXYB1
:50. &MXYB3
:51. &MXYF1
:52. &TOINT

```



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:53. &TOMAP
:54. &TAPCO
:55. &TAPRH
:56. &TAPRX
:57. &TBEC1
:58. &TBECE
:59. &TBESC
:60. &TBMPN
:61. &TCOLA
:62. &TCORD
:63. &TDLTM
:64. &TDFAT
:65. &TDRED
:66. &TDTOU
:67. &TECHO
:68. &TEDRW
:69. &TENDE
:70. &TFILL
:71. &THCLF
:72. &TICTB
:73. &TIFPC
:74. &TIIFB
:75. &TIICP
:76. &TIIOA
:77. &TIIVER
:78. &TLITM
:79. &TLTOD
:80. &TMVZE
:81. &TPGCP
:82. &TPHPR
:83. &TPLIM
:84. &TPRPH
:85. &TPTOD
:86. &TRESX
:87. &TWOD
:88. &ZOBFI
:89. &ZOBUF
:90. &ZOCAT
:91. &ZOCOR
:92. &ZOCOR
:93. &ZOCFA
:94. &ZOCT4
:95. &ZOCT8
:96. &ZOCTB
:97. &ZODC1
:98. &ZODC3
:99. &ZODCD
Operating System(s)..... RTE-6
Language(s)..... FTN7X
Keywords..... 1. Graphics
External Support Req'd....
If Re-submission, Reason..
Contributor's Name..... University of Colorado
Company..... Academic Computing Center
Street.....
City.....
State.....
Country..... USA
Zip Code.....
Phone Number.....
Telex.....

```

Contribution Abstract.....
This contribution is the complete graphics package for HSPICE, which is basically the same as HP1000 Graphics/1000-II DGL, written originally at University of Colorado under the direction of Prof. Mary Jo Coogan. HP modified the code for HSPICE/DGL; the HP-modified version is the contained here (current through Rev. 2540).

DIGRAF4

GRAPHICS ROUTINES FOR HSPICE/DGL (PART 4/5)

L179

Contribution Name..... DIGRAF4
Title..... Graphics routines for HSPICE/DGL (Part 4/5)
File Names.....00. Rename Transfer File (Interex-supplied)
:01. DiGraf4.SBMT submission file
:02. &ZODD1
:03. &ZODD3
:04. &ZODDV
:05. &ZODI1
:06. &ZODI3
:07. &ZODIN
:08. &ZODL1
:09. &ZODL3
:10. &ZODLM
:11. &ZODPA
:12. &ZODT4
:13. &ZODT8
:14. &ZOERR
:15. &ZOEVS
:16. &ZOEXT
:17. &ZOFBF
:18. &ZOFBI
:19. &ZOI00
:20. &ZOI01
:21. &ZOI02
:22. &ZOI03
:23. &ZOI05
:24. &ZOI08
:25. &ZOI09
:26. &ZONA1
:27. &ZONA3
:28. &ZONAT
:29. &ZONC1
:30. &ZONCA
:31. &ZONPA
:32. &ZOPTB
:33. &ZOSYS
:34. &ZOWRK
:35. &ZASPK
:36. &ZBEGN
:37. &ZBMOD
:38. &ZCOL1
:39. &ZCOLM
:40. &ZCOLR
:41. &ZCSIZ

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:42. &ZDCOL
:43. &ZDEND
:44. &ZDIN1
:45. &ZDINT
:46. &ZDLIM
:47. &ZDPM
:48. &ZDPST
:49. &ZDRAW
:50. &ZEND
:51. &ZIACS
:52. &ZICOL
:53. &ZIES1
:54. &ZIES3
:55. &ZIESC
:56. &ZIPST
:57. &ZIWS
:58. &ZLLIM
:59. &ZLOCP
:60. &ZLPM
:61. &ZLSTL
:62. &ZMARK
:63. &ZMCUR
:64. &ZMOVE
:65. &ZNEW
:66. &ZOES1
:67. &ZOES3
:68. &ZOESC
:69. &ZPGDD
:70. &ZPGDI
:71. &ZPICL
:72. &ZPIKP
:73. &ZPILS
:74. &ZPLIM
:75. &ZPOLY
:76. &ZPPMM
:77. &ZPSTL
:78. &ZTEX2
:79. &ZTEXT
:80. &ZVIEW
:81. &ZWIND
:82. DIGRAF.CMD Command file to compile FTN7X routines
:83. DIGRAF2.CMD Command file to edit file 'INCLUDE's
:84. DIGRAF3.CMD Command file to compile MACRO routines
:85. HPHPHP
:86. NN0001
:87. NN0002
:88. NN0003
:89. NN0004
:90. NN0005
:91. NN0006
:92. NN0007
:93. NN0008
:94. NN0009
:95. NN0010
:96. NN0011
:97. NN0012
:98. NN0013
:99. NN0014
Operating System(s)..... RTE-6
Language(s)..... FTN7X
Keywords..... 1. Graphics
External Support Req'd...
If Re-submission, Reason:
Contributor's Name..... University of Colorado
Company..... Academic Computing Center
Street.....
City.....
State.....
Country..... USA
Zip Code.....
Phone Number...
Telex.....
Contribution Abstract.....
This contribution is the complete graphics package for HPSPICE, which
is basically the same as HP1000 Graphics/1000-II DGL, written originally
at University of Colorado under the direction of Prof. Mary Jo Coogan.
HP modified the code for HPSPICE/DGL; the HP-modified version is
the contained here (current through Rev. 2540).

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DIGRAF5

L180

GRAPHICS ROUTINES FOR HPSPICE/DGL (PART 5/5)

```

Contribution Name..... DIGRAF5
Title..... Graphics routines for HPSPICE/DGL (Part 5/5)
File Names.....
:00. Rename Transfer File (Interex-supplied)
:01. DiGraf5.SBMT submission file
:02. NN0015
:03. NN0016
:04. NN0017
:05. NN0018
:06. NN0019
:07. NN0020
:08. NN0021
:09. NN0022
:10. NN0023
:11. NN0024
:12. NN0025
:13. NN0026
:14. NN0027
:15. NN0028
:16. NN0029
:17. NN0030
:18. NN0031
:19. NN0032
:20. NN0033
:21. NN0034
:22. NN0035
:23. NN0036
:24. NN0037
:25. NN0038
:26. NN0039
:27. NN0040
:28. NN0041
:29. NN0042
:30. NN0043

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:31. NN0044
:32. NN0045
:33. NN0046
:34. NN0047
:35. NN0048
:36. NN0049
:37. NN0050
:38. NN0051
:39. NN0052
:40. NN0053
:41. M0FILL
:42. M0FIN
:43. M0GFS
:44. M0I00
:45. M0I01
:46. M0I02
:47. M0I03
:48. M0I0T
:49. M0NAM
:50. M0NUM
:51. M0PLT
:52. T0INT
:53. T0MAP
:54. Z0AIN
:55. Z0BFI
:56. Z0BIN
:57. Z0BUF
:58. Z0CAT
:59. Z0CON
:60. Z0GOR
:61. Z0CPA
:62. Z0CTB
:63. Z0DC1
:64. Z0DCD
:65. Z0DCT
:66. Z0DDV
:67. Z0DIN
:68. Z0DLM
:69. Z0DPA
:70. Z0ERR
:71. Z0EVS
:72. Z0EXT
:73. Z0FBF
:74. Z0FBI
:75. Z0I00
:76. Z0I01
:77. Z0I02
:78. Z0I03
:79. Z0I05
:80. Z0I08
:81. Z0I09
:82. Z0KIN
:83. Z0LIN
:84. Z0LLM
:85. Z0NAT
:86. Z0NCA
:87. Z0NPA
:88. Z0PIN
:89. Z0PLM
:90. Z0PTB
:91. Z0PTS
:92. Z0SYS
:93. Z0VIN
:94. Z0WRK

```

```

Operating System(s)..... RTE-6
Language(s)..... FTN7X
Keywords..... 1. Graphics
External Support Req'd...
If Re-submission, Reason:
Contributor's Name..... University of Colorado
Company..... Academic Computing Center
Street.....
City.....
State.....
Country..... USA
Zip Code.....
Phone Number.....
Telex.....

```

```

Contribution Abstract.....
This contribution is the complete graphics package for HPSPICE, which
is basically the same as HP1000 Graphics/1000-II DGL, written originally
at University of Colorado under the direction of Prof. Mary Jo Coogan.
HP modified the code for HPSPICE/DGL; the HP-modified version is
the contained here (current through Rev. 2540).

```

CHRISTMAS

DRAW A CHRISTMAS TREE WITH BLINKING LIGHTS

L181

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Contribution Name..... CHRISTMAS
Title..... Draw a Christmas Tree with Blinking Lights
File Names..... 00. Rename transfer file.
:01. CHRISTMAS TREE.SBMT - Submission file
:02. CHRISTMAS TREE.FTN - Source file
:03. CHRISTMAS TREE.REL - Relocatable
:04. CHRISTMAS TREE.LOD - LINK command
Operating System(s)..... RTE4-B, RTE-67VM
Language(s)..... FTN4X
Keywords..... 1. Demo
:2. Display
:3. Terminal
External Support Req'd... None
If Re-submission, Reason:
Contributor's Name..... Vickie Spayth
Company..... City of Hope
Street..... 1450 East Duarte Road
City..... Duarte
State..... CA
Zip Code..... 91010
Phone Number.....
Telex.....
Contribution Abstract.....
This program draws a Chrstitmas tree with blinking lights on any terminal.
It would be nice if someone adds color and maybe does a graphics version.
Additional Documentation.....

```

HELPFUL LITTLE PROGRAMS FOR MUX AND PRINTER

Contribution Name.....: TOOLS
 Title.....: Helpful Little Programs for MUX and Printer
 File Names.....:00. Rename transfer file
 :01. TOOLS.SBMT
 :02. CN6.FTN
 :03. CN6.REL
 :04. PRCON.FTN
 :05. PRCON.REL
 :06. BLKOF.FTN
 :07. BLKOF.REL
 Operating System(s).....: RTE-6/VM
 Language(s).....: FTN7X
 Keywords.....: 1. PRINTER
 : 2. MULTIPLEXOR
 : 3. CONFIGURE
 External Support Req'd....: None
 If Re-submission, Reason.:
 Contributor's Name.....: William L. Steele
 Company.....: Tobacco Institute Testing Laboratory
 Street.....: Suite 201, 2 Taft Court
 City.....: Rockville
 State.....: MD
 Country.....: MD
 Zip Code.....: 20850
 Phone Number...: (301)-294-8582
 Telex.....:
 Contribution Abstract.....:
 CN6 is a revised menu driven version of CN6 from CSL release 2140.
 Program sets and clears a printer's auto page eject mode. PRCON sets
 2365A printer to and from compressed mode (an other modes too). BLKOF
 resets a designated terminal from block to character mode and informs
 the driver. For programs aborting leaving terminal in block mode,
 running BLKOF along with ZOT (CSL release 2340) and/or CLRDV (release
 2625) will usually wake up a terminal on a B-MUX running under RTE-6/VM.
 Additional Documentation....:



SHOW CURRENT SESSION INFORMATION

Contribution Name.....: CINFO
 Title.....: Show current session information
 File Names.....:00. Rename Transfer File (Interex-supplied)
 :01. CINFO.SBMT (submission file)
 :02. CINFO.FTN (source)
 :03. CINFO.REL (relocatable)
 :04. CINFO.LOD (link commands)
 :05. ?CINFO (help file)
 Operating System(s).....: RTE-A DSD 4.0 VC+
 Language(s).....: FTN7X
 Keywords.....: 1. SESSION
 : 2. STATUS
 External Support Req'd....: NONE
 If Re-submission, Reason.:
 Contributor's Name.....: Y. T. Chuang
 Company.....: CSM, Inc.
 Street.....: P. O. Box 534
 City.....: Akron
 State.....: Ohio
 Country.....: USA
 Zip Code.....: 44309
 Phone Number...:
 Telex.....:
 Contribution Abstract.....: This program displays user's current
 session information such as session number,
 logon name, logon time and cpu time usage
 since log on.
 The program should be installed into the
 /PROGRAMS.DIR directory as CINFO.RUN and
 the help file ?CINFO should be placed in
 the /HELP.DIR directory as CINFO.
 Additional Documentation....: none

HI-SPEED DISC-TO-TAPE ARCHIVE W/STREAMING (CSL/1000 FORMAT)

Contribution Name.....: SAVEM
 Title.....: Hi-speed Disc-to-Tape Archive w/Streaming (CSL/1000 Format)
 File Names.....:00. Rename Transfer File
 :01. SAVEM Submission file
 :02. SAVEM Source code
 :03. SAVEM Relocatable
 :04. SAVEM LINK command file
 :05. SAVEM Source tape positioning program
 :06. FILEM Relocatable
 :07. FILEM Relocatable
 :08. SAVEM LINK command file
 :09. SAVEM Documentation and instructions
 :10. \$LIBHS Relocatable library
 :11. \$DUMY6 Dummy lib for RTE-6
 :12. \$DUMYA Dummy lib for RTE-A
 Operating System(s).....: RTE-6VM,RTE-A
 Language(s).....: FTN7X
 Keywords.....: 1. Archive
 : 2. Backup
 : 3. Save/Restore
 External Support Req'd....: None
 If Re-submission, Reason.: Updated to support streaming on 7974/7978
 Contributor's Name.....: Alan R. Whitney
 Company.....: MIT Haystack Observatory
 Street.....: Off Rt. 40

City.....:Westford
State.....:Massachusetts
Country.....:USA
Zip Code.....:01886
Phone Number...:(617) 692-4764
Contribution Abstract.....: SAVEM is the program used to create the
CSL/1000 tape, which then may be retrieved using programs GOTEM or
GETEM (on Release 2625 CSL/1000 tape). SAVEM saves FMGR files (only) to tape
by specification of a list of selective namr's (for example, -----:20
will save all files on FMGR cartridge 20). The file order on tape may be
alphabetized according to any combination of name, cartridge, or security
code. Each time SAVEM is run, a 'Save' is created. Multiple 'Saves' may
be stacked on a single tape; conversely, a single 'Save' may cross tape
volumes. All files are saved in a blocked binary format to achieve
highly-efficient data storage on tape. SAVEM does all of its own FMGR
file directory management for extremely high speed in archiving large
amounts of data. A full directory is maintained at the beginning of each
Save so that the contents of a Save may be quickly examined by GETEM.
Multiple-volume Saves create a full directory at the beginning of each
volume, so that each volume may stand alone.
SAVEM requires the availability of program FILEM for tape positioning
management. See file "SAVEM for full details.
This version supports streaming mode on the 7974/7978 tape drives for very
fast operation (roughly same as FST). If streaming mode is desired, verify
option should be declined for efficient operation.
Additional Documentation.....:"SAVEM