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THE REGIONAL OXIDANT MODEL (ROM) USER'S GUIDE
PART 4:
THE ROM SYSTEM USER TUTORIAL
(PROCESSOR NETWORK AND CORE MODEL)

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SECTION 1

INTRODUCTION

Part 4 of the Regional Oxidant Model (ROM) User's Guide is intended to be a "cookbook" for unloading the ROM system code and benchmark (test case) data from the 19 distribution tapes and running it on the following computer systems: (1) VAX hardware for the preprocessors and the Processor Network, and (2) IBM hardware for the Core Model. At the U.S. Environmental Protection Agency (EPA), we run the ROM on VAX 8650 and IBM 3090 machines. If you only have access to a VAX, you can run the Core Model on a VAX; however, a VAX run would take far longer than on an IBM.

If you do not have access to IBM or VAX hardware and you are interested in the code, you may want to look at the following tapes (see Section 2): VAX tape volumes 101812 and 102322 (in ASCII), and IBM Tape ID CODE (in EBCDIC). Other than the code tapes, the distribution tapes are IBM binary or VAX binary.

Part 4 is organized as follows:

- Section 2 discusses the unloading of the ROM code and benchmark data from the distribution tapes to disk.
- Section 3 tells you how to compile the FORTRAN code, how to create the link streams, and how to build executable files using VAX/VMS.
- Section 4 is a step-by-step guide to building the Processor File/Model File (PF/MF) database file for the ROM processor network.
- Section 5 guides you through running the Processor Network as well as the three preprocessors--TEMPROC, MASK, and PFMFCOPY.
- Section 6 contains the information you will need to run the Core Model on an IBM mainframe.
- Section 7 describes the quality assurance checks needed to ensure that your output data are identical to our output data (i.e. output obtained from execution of the ROM using the input data included on the distribution tapes).
- Section 8 presents sample link and run streams for a Core Model run on a VAX.

The first three parts of the ROM User's Guide document each input and output file for: the preprocessors of "raw" data (Part 1, EPA/600/8-90-083a), the Processor Network (Part 2, EPA/600/8-90-083b), and the Core Model (Part 3, EPA/600/8-90-083c). You will also find these valuable to promote your understanding of the overall model.

If you compare the contents of Part 2 with the contents of Part 4, you will notice that Processors P36G and P41G are omitted herein--these two Processors are no longer used for emissions processing.

In addition, for running the benchmark data, we have provided the output data files from P21G, P24G, P31G, and P34G. These processors function as preprocessors. The output files are: CLEANAIR.DAT (P21G); EQBC_RNET88.DAT (P24G); and AREASA.CS0, AREASU.CS0, AREAWK.CS0, PNTSA.CS0, PNTSU.CS0, PNTWK.CS0, MOBLSA.CS0, MOBLSU.CS0, and MOBLWK.CS0 (P31G, P34G). You will, however, need to run P21G, P24G, P31G, and P34G if you execute the ROM with your own boundary conditions and emissions data.

SECTION 2

UNLOADING THE ROM CODE AND BENCHMARK DATA TO DISK

There are 19 distribution tapes: 13 labeled tapes from VAX copies and 6 nonlabeled tapes from IBM copies. A brief description of each tape is given in Table 1. The logs that reflect our copying of the ROM code and benchmark data files to tapes are presented in Appendix A (VAX tapes) and Appendix B (IBM tapes).

This section presents the space requirements, the required directories, and the command for VAX tape-to-disk copy for unloading the ROM code and benchmark data to disk.

2.1 SPACE REQUIREMENTS

Before you begin unloading the code and data from the distribution tapes, make the following space available on VAX disk packs (1 block = 512 bytes) or equivalent, as needed:

20000	blocks for code and executables
380000	blocks for Processor Files and Model Files (PF/MF)
2500	blocks for the PF/MF database file
300000	blocks for the VAX CONC file[1]
715000	blocks for input data from the preprocessors
1417500	**blocks, total**

The following storage space on the IBM (1 track = 47,476 bytes) will be required for the Core Model code:

21	tracks of code (approximately 12000 lines of code)
24	tracks of load libraries
1	track of IBM compile/link Job Control Language (JCL)
1	track of JCL to submit the run
47	tracks of the log file
94	**tracks, total**

1. This file was generated on the IBM and transferred to a VAX to provide a translated concentration (CONC) benchmark file for comparison with your run. The CONC file is split into three parts (using a block size of 15,360 bytes) and resides on tape volumes B20017, B20033, and B20005 (see Appendix A).

TABLE 1. DISTRIBUTION TAPES

VAX Distribution Tapes

Volume	Description	Label	No. of files	Blocking factor	Format
101812	CODE 1	101812	342	2,048 bytes	ASCII
102322	CODE 2	102322	909	2,048 bytes	ASCII
099804	RAWDATA	099804	15	2,048 bytes	VAX binary
100594	PFMF 1	100594	69	2,048 bytes	VAX binary
103259	PFMF 2	103259	44	2,048 bytes	VAX binary
100417	PFMF 3	100417	6	2,048 bytes	VAX binary
102283	POINTS 1	102283	2	2,048 bytes	VAX binary
102308	POINTS 2	102308	2	2,048 bytes	VAX binary
102374	MOBILE	102374	7	2,048 bytes	VAX binary
103423	AREA & BIOGENIC	103423	7	2,048 bytes	VAX binary
B20017	CONC 1	B20017	1	15,360 bytes	VAX binary
B20033	CONC 2	B20033	1	15,360 bytes	VAX binary
B20005	CONC 3	B20005	1	15,360 bytes	VAX binary

IBM Distribution Tapes

Tape ID	Description	Label	No. of files	Blocking factor (see Appendix B)	Format
CODE	Code	None	16	132 to 23,000 bytes	EBCDIC
CONC 1	CONC, tape 1 of 2	None	1	7,680 bytes	IBM binary
CONC 2	CONC, tape 2 of 2	None		7,680 bytes	IBM binary
BMAT 1	BMAT, tape 1 of 3	None	1	23,048 bytes	IBM binary
BMAT 2	BMAT, tape 2 of 3	None		23,048 bytes	IBM binary
BMAT 3	BMAT, tape 3 of 3	None		23,048 bytes	IBM binary

Because you may choose to run the Core Model on a VAX instead of on an IBM (although we do not recommend this because of the slowness of the execution), we include the following VAX storage requirements for the Core Model:

1950	blocks for code
100	blocks for compile/link Digital Command Language (DCL)
100	blocks of DCL to submit the run
4360	blocks for the log file
6510	**blocks, total**[2]

2. These storage requirements do not include the input files (ICON, BCON, BTRK, BMAT, NEWICON, PROG, STOPCK, and RESTRT) and output file (CONC) of the Core Model (see Section 6.2).

2.2 REQUIRED DIRECTORIES

Before you restore the files from the VAX distribution tapes (see Section 2.3), you must create destination directories, including:

(1) code and related directories,
(2) formulation and log directories,
(3) database directory, and
(4) input/output data directories.

These directories are listed below, including the device name "*disk*" and our root directory names. Our benchmark execution of the ROM was made using three disk packs: MET15, MET52, and DISK$VAXSET. You should establish a similar, but not necessarily identical, directory structure. You will need to substitute your disk name whenever you see *disk*, MET15, MET52, or DISK$VAXSET in this document. You should copy only those files associated with a specific directory (except input/output data directories) from tape to that directory.[3] Table 2 and Table 3 (at the end of Section 2) present listings of the files associated with each directory, in alphabetical order -- on tape volumes 101812 and 102322, respectively.

Code and related directories:

1. *disk*:[ROMLIB.UTILIO]
   contains utility code. The utilities open files, read file headers, read/write records, etc. The rules for inclusion of code into this directory are (a) that the code is not region-dependent, and (b) three or more programs use a file.

   Note: on tape volume 101812 (Appendix A), the file CLOCK1.FOR occurs in both [ROMLIB.ROXAN] and [ROMLIB.UTILIO]; these files are similar but are not the same file.[4] The order of the American National Standards Institute (ANSI) copy put the [ROMLIB.ROXAN] CLOCK1.FOR on the tape first, followed by the [ROMLIB.UTILIO] CLOCK1.FOR. Therefore, when you copy from the tape, you will need to order them to put the correct version of CLOCK1.FOR into its proper directory.

3. The logs from the copy-to-tape runs for the 19 distribution tapes (see Appendices A and B) can be used to determine the directory-to-file relationships.
4. CLOCK1.FOR also occurs on tape volume 102322; this version of the file belongs in directory [ROMLIB.CORE].

2. *disk*:[ROMLIB.PROCES]
contains processor code (P01G-P41G). This directory contains FORTRAN code in two types of files: .FOR files for main routines, subroutines, and functions; and .EXT files for INCLUDE files, i.e., common blocks and block data included in more than one .FOR file. It also contains generic .COM and .CPR (control card) files, as well as .DFL (directory file listing, i.e., all code files required by a particular processor).

3. *disk*:[ROMLIB.FILESMAN]
contains code to create the PF/MF database file (DIRECT2.DAT), as well as the FORTRAN code that initially creates the PF/MF files, which must exist before you run the processors for the first time.

4. *disk*:[ROMLIB.PREPROC]
contains all the preprocessor code files. This directory includes FORTRAN code in .FOR files and .EXT files. It also contains generic .COM and .CPR files, as well as .DFL files that are used by the preprocessors.

5. *disk*:[ROMLIB.ROMNET]
contains the region-dependent parameters file REGPRM.EXT. On the distribution tapes, we include a region-dependent parameters file for the ROMNET region. Appendix C presents figures of the ROMNET, NEROS, and SEROS domains. You can make your own REGPRM.EXT file for NEROS, SEROS, or another domain (see Part 2, Section 3 of the ROM User's Guide).

6. *disk*:[ROMLIB.RPROCS]
contains quality assurance programs for the processor PF/MF files.

7. *disk*:[ROMLIB.ROXAN]
contains the quality assurance programs for the final CONC file output from the Core Model.

8. *disk*:[ROMLIB.CORE]
contains all the Core Model code for running the Core Model on a VAX computer. Note that the Core Model has its own set of utility code. Many of these files have the same names as the *disk*:[ROMLIB.UTILIO] files, but they are not necessarily interchangeable. Files from these two directories have been purposely put on separate tapes.

9. *disk*:[ROMLIB.COMPILE]
contains command files to make .OBJ and .EXE files (see Section 3 for details).[5] The

5. The distribution tapes do not contain the command files to make the .OBJ and .EXE files for the Core Model on the VAX.

CRLINK2.COM and BLDLNKx.COM files are used to build the link streams to run the processors (BLDLNK.COM) and preprocessors (BLDLNK2.COM), as well as the link streams for the QA programs (BLDLNK3.COM and (BLDLNK4.COM). Note: to simplify batch processing, each BLDLNKx.COM file invokes CRLINK2.COM repeatedly for a list of .DFL files. ASSIGNEXT.COM sets up the logicals for the INCLUDE files. FOROTHER.COM creates .OBJ files.

10. *disk*:[ROM:CONC]
(or your directory name) contains the CONC file translated from the IBM execution to VAX binary.

We also created separate directories to contain the output of the COMPILE directory file:

11. *disk*:[ROMOBJ.*y*]
contains the OBJect files. *y* = UTILIO, PROCES, FILESMAN, PREPROC, RPROCS, ROXAN (also CORE, if you run the Core Model on a VAX computer).

12. *disk*:[ROMEXE.*y*]
contains the EXEcutable files. *y* = UTILIO, PROCES, FILESMAN, PREPROC, RPROCS, ROXAN (also CORE, if you run the Core Model on a VAX computer).

Formulation and log directories:

13. *disk*:[FOREMAN.FV1*nnm*X]
are formulation directories:
    (a) time-independent processors, [FOREMAN.FV1050X]
    (b) meteorology processors, [FOREMAN.FV1871X]
    (c) initial and boundary condition processors, [FOREMAN.FV1872X]
    (d) emissions processors, [FOREMAN.FV1873X]

Refer to Section 6.1 for an explanation of the formulation-naming convention. Each formulation directory contains a .COM file and a .CPR file for each processor in the formulation. You will use these .COM and .CPR files in running the ROM with the benchmark data. Also, we normally direct the processor .LOG files to the appropriate formulation directory.

14. *disk*:[ROMLIB.LOGS]

contains miscellaneous .LOG files. We have grouped the .LOG files from our execution of the ROM processors with the formulation directories. The .LOG files from your execution of the ROM processors should be essentially identical to our benchmark .LOG's.

Database directory:

15. *disk*:[ROM2_1.ROMNET]

contains three input data files (CR1IN2.DAT, CR4IN2.DAT, and PROGDB5; see Section 4), as well as two run stream files (CR14.COM and CR6.COM) and a control card file (CR6.CPR). These files are used to create DIRECT2.DAT (see Section 4, Step 5), which then resides in this directory. It also contains CRTFLS.COM;*x* (where $x = 1$ to 4), the command files that you will need to initialize the Processor Files and Model Files.

Input/output data directories:

16. For the benchmark input and output data, the directories are:

    (a) [ROMNET1.RAWDATA], meteorology and emissions input data
    (b) [ROMNET1.D88184], the PF/MF output data[6]
    (c) [ROMNET1.D00000], time-independent output data
    (d) [ROMNET1.D88183], the PF192X.DAT file
    (e) [ROMNET1.CORE], the Core Model CONC output file.[7]

    In general, the output data that we provide you are named PF*xxx*X.DAT and MF*xxx*X.DAT.[8] The files that you will create are called PF*xxx*Z.DAT and MF*xxx*Z.DAT. You will compare your files with ours during QA procedures.

    When any processor is run, its output Processor and/or Model Files *must already exist* in the appropriate [ROMNET1.*] directory (see above). Directories for output files must exist for each formulation that you run. For ROMNET applications, our output directories are named [ROMNET1.D*YYDDD*], where *YYDDD* is the Julian date of the first day of the ozone episode (e.g., ROMNET1.D88184). Output file PF192X.DAT contains data for a full month, and the directory name, [ROMNET1.D88183], reflects the Julian date of the first day of the month.

---

6. Many of the PF/MF "output" data files are used as input data by downstream processors.
7. This directory receives the IMET file from Processor P39G when you run the Processor Network. If you need to run the Core Model on a VAX computer, this directory also receives the ICON, BCON, BTRK, and BMAT input files to the Core Model. (See Section 6.2 for a listing of the Core Model input files.) However, all of these files will not fit on one disk pack.
8. Some output files are not Processor Files or Model Files.

If you will be running the ROM routinely, we suggest that you send the meteorology and emissions files that are created to different disk packs. This suggestion will expedite your use of a single meteorology formulation for different emissions scenarios. For example, you will not need to rerun the meteorology processors when switching from 1985 to projected 2005 emissions data. If you do follow our suggestion, note that MF103 - MF108, which are created by P29G (a meteorology processor), should be directed to the emissions disk pack.

Note:
To create the input/output data directories above, use the following or your equivalent of the VAX/VMS command:

```
CREATE / DIRECTORY disk:[ROMLIB.UTILIO]
```

where the top-level directory, *disk*:[ROMLIB], already exists.

2.3 RESTORING THE DISTRIBUTION TAPES TO DISK

In order to provide broader access to the tapes, we have copied all the ROM2.1 files to tape using standard ANSI tape copy rather than use the VAX/VMS BACKUP utility. To copy *from* tape to disk, use your equivalent of the VAX/VMS command:

```
COPY tapedrive:*.*;*  disk:[directory.subdirectory]*.*;*
```

Note: You should copy only those files associated with a specific directory from tape to that directory (see Appendices A and B to determine the directory-to-file relationships).

TABLE 2. LISTING OF FILES BY DIRECTORY -- TAPE VOLUME 101812

disk:[ROMLIB.COMPILE]

Total of 9 files — 56 / 66 blocks
(i.e., actual / allocated disk space usage in VAX 512-byte blocks)

ASSIGNEXT.COM;4	5 / 6	BLDLNK4.COM;2	1 / 3
BLDLNK.COM;7	4 / 6	CRLINK2.COM;3	6 / 6
BLDLNK.LOG;1	13 / 15	FOROTHER.COM;1	3 / 3
BLDLNK2.COM;5	5 / 6		
BLDLNK2.LOG;1	18 / 18		
BLDLNK3.COM;1	1 / 3		

disk:[ROMLIB.FILESMAN]

Total of 51 files — 264 / 318 blocks.

CREATE1.DFL;1	1 / 3	OPFLS.LNK;1	3 / 3
CREATE1.FOR;1	9 / 9	PRINT8.FOR;1	5 / 6
CREATE1.LNK;1	3 / 3	PRNT5A.FOR;1	5 / 6
CREATE2.DFL;1	2 / 3	PRNT5B.FOR;1	6 / 6
CREATE2.FOR;1	5 / 6	PRNT6A.FOR;1	5 / 6
CREATE2.LNK;1	4 / 6	PRNT6B.FOR;1	6 / 6
CREATE3.DFL;1	2 / 3	PRNT7A.FOR;1	3 / 3
CREATE3.FOR;1	8 / 9	PRNT7B.FOR;1	11 / 12
CREATE3.LNK;1	4 / 6	PROG1.EXT;1	3 / 3
CREATE4.DFL;1	1 / 3	PROG2.EXT;1	3 / 3
CREATE4.FOR;1	10 / 12	PROG3.EXT;1	2 / 3
CREATE4.LNK;1	3 / 3	PROG4.EXT;1	3 / 3
CREATE6.DFL;1	2 / 3	PROG5.EXT;1	2 / 3
CREATE6.FOR;1	22 / 24	PROG6.EXT;1	3 / 3
CREATE6.LNK;1	4 / 6	RDDB1.FOR;1	4 / 6
CRTFLS.DFL;1	1 / 3	RDDB2.FOR;1	4 / 6
CRTFLS.FOR;1	11 / 12	RDDB3.FOR;1	6 / 6
CRTFLS.LNK;1	3 / 3	RDDB4.FOR;1	7 / 9
FLIST1.FOR;1	4 / 6	RDPGMS.FOR;1	7 / 9
FLIST2.FOR;1	7 / 9	SPLIT.FOR;1	6 / 6
INIT1.FOR;1	4 / 6	VALID1.FOR;1	7 / 9
LIST1.DFL;1	2 / 3	VALID2.FOR;1	5 / 6
LIST1.FOR;1	3 / 3	WRPGMS.FOR;1	7 / 9
LIST1.LNK;1	5 / 6	WRRPT.FOR;1	9 / 9
MARK.FOR;1	10 / 12		
OPFLS.DFL;1	1 / 3		
OPFLS.FOR;1	11 / 12		

disk:[ROMLIB.LOGS]
Total of 3 files 68 / 72 blocks

CONCCMP2.LOG;1	20 / 21
CRTFLS3.LOG;1	23 / 24
PFCMP.LOG;1	25 / 27

disk:[ROMLIB.ROMNET]
Total of 2 files 21 / 24 blocks

REGION.EXT;1	1 / 3	REGPRM.EXT;1	20 / 21

disk:[ROMLIB.ROXAN]
Total of 44 files 264 / 315 blocks

ADDCNC.FOR;2	2 / 3	DTF_TRANS.COM;3	1 / 3
ADIFCN.FOR;3	2 / 3	EXWST.FOR;1	3 / 3
ANDFCN.FOR;5	2 / 3	GETMENU.FOR;1	11 / 12
BLKDAT.FOR;7	8 / 9	GETNUM.FOR;1	11 / 12
CLOCK1.FOR;2	4 / 6	HDCONC.EXT;3	8 / 9
CN2VAX.COM;15	4 / 6	HDINCN.EXT;2	6 / 6
CNCSTAT.FOR;9	6 / 6	HDRCON.FOR;6	5 / 6
CNGRID.DFL;5	1 / 3	LEN2.FOR;3	3 / 3
CNGRID.FOR;8	8 / 9	LEVNMS.EXT;2	1 / 3
CNGRID.LNK;1	4 / 6	MAKGRD.FOR;6	8 / 9
CNGRIDX1.COM;10	3 / 3	MAKMAP.FOR;2	6 / 6
CNHDBF.EXT;2	1 / 3	MAXCNC.FOR;2	2 / 3
CONCCMP.DFL;4	2 / 3	MAXPRM.EXT;2	1 / 3
CONCCMP.FOR;14	47 / 48	MODELS.EXT;2	1 / 3
CONCCMP.LNK;1	7 / 9	NRDFAV.FOR;2	2 / 3
CONCCMP.MAKE;4	5 / 6	NRDFCN.FOR;2	2 / 3
CONCCMP1.COM;1	2 / 3	PARMFL.EXT;2	3 / 3
CONCCMP2.COM;7	4 / 6	RUNDAT.EXT;2	1 / 3
COPYCNC.FOR;2	2 / 3	SLECTR.FOR;6	61 / 63
DFNRMS.FOR;9	3 / 3	TIMCON.FOR;6	4 / 6
DIFCNC.FOR;2	2 / 3	TPTANL.EXT;2	2 / 3
DIMANL.EXT;4	2 / 3	UNTANL.EXT;2	1 / 3

disk:[ROMLIB.RPROCS]
Total of 5 files 57 / 60 blocks

CMPGRID.DFL;1	3 / 3	PFCMP.COM;1	2 / 3
CMPGRID.FOR;1	35 / 36		
CMPGRID.LNK;1	6 / 6		
GRDIF.FOR;1	11 / 12		

disk:[ROMLIB.UTILIO]
Total of 114 files 904 / 1014 blocks

ACOMPB.FOR;1	4 / 6	FHEAD2.EXT;1	6 / 6
ADATE.FOR;1	4 / 6	FILL.FOR;1	4 / 6
AGRID1.FOR;1	25 / 27	FLNAM2.FOR;1	2 / 3
AGRID2.FOR;1	26 / 27	FLNAM3.FOR;1	2 / 3
AGRID3.FOR;1	31 / 33	FLSMRY.FOR;1	5 / 6
ATAPE.FOR;1	12 / 12	FRACT.EXT;1	1 / 3
BDATE.FOR;1	3 / 3	FSKIP1.FOR;1	9 / 9
BGRID1.FOR;1	37 / 39	FSTAT1.FOR;1	10 / 12
BGRID2.FOR;1	43 / 45	GETMEM.FOR;1	4 / 6
BGRID3.FOR;1	43 / 45	GETMSG.FOR;1	5 / 6
CELL0.FOR;1	34 / 36	GETYN.FOR;1	5 / 6
CELL1.FOR;1	6 / 6	GMTLCL.FOR;1	3 / 3
CELL2.FOR;1	5 / 6	GPRIME.FOR;1	22 / 24
CELL3.FOR;1	2 / 3	GRDDEF.EXT;1	3 / 3
CELLAR.FOR;1	4 / 6	GREG.FOR;1	3 / 3
CHAIN2.FOR;1	12 / 12	HNDLSV.EXT;1	3 / 3
CLOCK1.FOR;1	5 / 6	IASSGN.FOR;1	3 / 3
CLOCK2.FOR;1	5 / 6	IBLKR.FOR;1	3 / 3
CLRHDR.FOR;1	6 / 6	INDEX1.FOR;1	3 / 3
COMBS.EXT;1	1 / 3	INDEX2.FOR;1	3 / 3
CONCS.EXT;1	1 / 3	IOCL.FOR;1	2 / 3
CPUTOT.FOR;1	5 / 6	IOERR.FOR;1	3 / 3
DATEHR.FOR;1	4 / 6	IOUNIT.EXT;1	1 / 3
DATHR2.FOR;1	4 / 6	JFILE1.FOR;1	5 / 6
DATHR3.FOR;1	6 / 6	JFILE2.FOR;1	8 / 9
DATHR4.FOR;1	5 / 6	JFILE3.FOR;1	5 / 6
DATHR5.FOR;1	4 / 6	JFILE4.FOR;1	9 / 9
DATHR6.FOR;1	4 / 6	JFILE5.FOR;1	6 / 6
DATIME.EXT;1	2 / 3	JFILE6.FOR;1	9 / 9
DATTIM.FOR;1	4 / 6	JFILEX.FOR;1	5 / 6
DIRREC.EXT;1	4 / 6	JHOUR1.FOR;1	4 / 6
ERROUT.FOR;1	2 / 3	JULIAN.FOR;1	2 / 3
EXSTAT.EXT;1	2 / 3	JUNIT.FOR;1	5 / 6
FDIR1.EXT;1	1 / 3	KDAY.FOR;1	2 / 3
FDIR2.EXT;1	3 / 3	LEN1.FOR;1	3 / 3
FHEAD1.EXT;1	5 / 6	MATCH.FOR;1	3 / 3

MOVE4.FOR;1	2 / 3	RDFT5.FOR;1	14 / 15
NEXTHR.FOR;1	4 / 6	RDREC.FOR;1	9 / 9
OPDIR2.FOR;1	8 / 9	RDSRF1.FOR;1	15 / 15
OPEN2.FOR;1	14 / 15	RDTAPE.FOR;1	9 / 9
PARAM.EXT;1	1 / 3	RDWNDO.FOR;1	12 / 12
PARMS.EXT;1	4 / 6	REMBLK.FOR;1	4 / 6
PI.EXT;1	3 / 3	REORDR.FOR;1	5 / 6
POINTS.FOR;1	25 / 27	SOLAR.FOR;1	11 / 12
PQ1CB42.FOR;1	20 / 21	SOLELV.FOR;1	6 / 6
PQCOEFCB42.FOR;1	8 / 9	SORT4.FOR;1	10 / 12
PRID.EXT;1	2 / 3	TOTAL.FOR;1	2 / 3
PROGID.FOR;1	5 / 6	TRNLOG.FOR;1	9 / 9
RATEDCB42.FOR;1	15 / 15	TRNSLT.FOR;1	16 / 18
RDDIR1.FOR;1	8 / 9	WRCHAR.FOR;1	2 / 3
RDFHD1.FOR;1	4 / 6	WRFILE.FOR;1	2 / 3
RDFHD2.FOR;1	6 / 6	WRFT1.FOR;1	12 / 12
RDFILE.FOR;1	2 / 3	WRFT3.FOR;1	13 / 15
RDFT1.FOR;1	12 / 12	WRFT4.FOR;1	12 / 12
RDFT2.FOR;1	12 / 12	WRFT5.FOR;1	14 / 15
RDFT3.FOR;1	12 / 12	WRREC.FOR;1	9 / 9
RDFT4.FOR;1	12 / 12	XATAN2.FOR;1	4 / 6

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disk:[ROM2_1.ROMNET]
Total of 12 files 1928 / 1941 blocks

CR14.COM;1	2 / 3	DIRECT2.DAT;1	723 / 723
CR1IN2.DAT;1	19 / 21	PROGDB1.DAT;1	98 / 99
CR4IN2.DAT;1	139 / 141	PROGDB2.DAT;1	165 / 165
CR6.COM;1	2 / 3	PROGDB3.DAT;1	571 / 573
CR6.CPR;1	1 / 3	PROGDB4.DAT;1	197 / 198
CRTFLS.COM;4	2 / 3	PROGDB5.DAT;1	9 / 9

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disk:[FOREMAN.FV1050X]
Total of 9 files 46 / 60 blocks

P06G.CPR;2	1 / 3	P25G.CPR;2	1 / 3
P06G.LOG;1	18 / 18	P25G.LOG;1	11 / 12
P06GX1.COM;1	2 / 3	P25GX1.COM;1	1 / 3
P13G.CPR;2	1 / 3		
P13G.LOG;1	10 / 12		
P13GX1.COM;1	1 / 3		

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disk:[FOREMAN.FV1871X]
Total of 50 files 1998 / 2061 blocks

P01G.CPR;2	1 / 3	P12G.LOG;1	166 / 168
P01G.LOG;1	21 / 21	P12GX1.COM;2	6 / 6
P01GX1.COM;2	2 / 3	P15G.CPR;2	1 / 3
P03G.CPR;2	1 / 3	P15G.LOG;1	42 / 42
P03G.LOG;1	47 / 48	P15GX1.COM;2	3 / 3
P03GX1.COM;2	2 / 3	P16G.CPR;2	1 / 3
P04G.CPR;2	1 / 3	P16G.LOG;1	29 / 30
P04G.LOG;1	208 / 210	P16GX1.COM;2	2 / 3
P04GX1.COM;3	3 / 3	P17G.CPR;2	1 / 3
P05G.CPR;2	1 / 3	P17G.LOG;1	87 / 87
P05G.LOG;1	88 / 90	P17GX1.COM;2	3 / 3
P05GX1.COM;2	2 / 3	P19G.CPR;3	1 / 3
P07G.CPR;2	1 / 3	P19G.LOG;1	28 / 30
P07G.LOG;1	228 / 228	P19GX1.COM;2	2 / 3
P07GX1.COM;2	3 / 3	P23G.CPR;2	1 / 3
P08G.CPR;2	1 / 3	P23G.LOG;1	61 / 63
P08G.LOG;1	418 / 420	P23GX1.COM;2	2 / 3
P08GX1.COM;2	3 / 3	P29G.CPR;2	2 / 3
P09G.CPR;2	1 / 3	P29G.LOG;1	70 / 72
P09G.LOG;1	48 / 48	P29GX1.COM;2	5 / 6
P09GX1.COM;2	4 / 6	P32G.CPR;2	1 / 3
P11G.CPR;2	1 / 3	P32G.LOG;1	32 / 33
P11G.LOG;1	278 / 279	P32GX1.COM;2	3 / 3
P11GX1.COM;2	4 / 6	PFMFCOPY.COM;3	7 / 9
P12G.CPR;2	1 / 3	PFMFCOPY.LOG;1	74 / 75

disk:[FOREMAN.FV1872X]
Total of 10 files 147 / 159 blocks

P02G.CPR;3	1 / 3	P22G.CPR;3	1 / 3
P02G.LOG;1	15 / 15	P22G.LOG;1	55 / 57
P02GIBM.LOG;2	14 / 15	P22GIBM.LOG;2	53 / 54
P02GX1.COM;5	2 / 3	P22GX1.COM;6	2 / 3
P02GX2.COM;2	2 / 3	P22GX2.COM;2	2 / 3

disk:[FOREMAN.FV1873X]
Total of 33 files 856 / 891 blocks

MASK.COM;16	2 / 3	P38G.LOG;1	52 / 54
MASK.LOG;1	29 / 30	P38GIBM.LOG;4	49 / 51
P10G.CPR;2	1 / 3	P38GX1.COM;4	3 / 3
P10G.LOG;1	58 / 60	P38GX1.LOG;1	52 / 54
P10GX1.COM;5	4 / 6	P38GX2.COM;2	3 / 3
P14G.CPR;2	1 / 3	P39G.CPR;2	2 / 3
P14G.LOG;1	49 / 51	P39G.LOG;1	78 / 78
P14GX1.COM;3	3 / 3	P39GX1.COM;3	5 / 6
P26G.CPR;2	2 / 3	P40G.CPR;2	2 / 3
P26G.LOG;1	33 / 33	P40G.LOG;1	62 / 63
P26GX1.COM;3	3 / 3	P40GIBM.LOG;2	62 / 63
P27G.CPR;2	1 / 3	P40GX1.COM;3	2 / 3
P27G.LOG;1	187 / 189	P40GX2.COM;2	3 / 3
P27GX1.COM;4	2 / 3	TEMPROC.COM;14	2 / 3
P33G.CPR;2	1 / 3	TEMPROC.LOG;1	15 / 15
P33G.LOG;1	83 / 84		
P33GX1.COM;3	3 / 3		
P38G.CPR;2	2 / 3		

disk:[ROMLIB.CORE]

Total of 126 files 908 / 1071 blocks

(i.e., actual / allocated disk space usage in VAX 512-byte blocks)

ADATE.FOR;1	4 / 6	INDEX1.FOR;1	3 / 3
ADVSFL.EXT;1	1 / 3	INIRUN.FOR;1	13 / 15
ASORT.FOR;1	2 / 3	IOCL.FOR;1	2 / 3
BCFILE.EXT;1	2 / 3	JFILE2.FOR;1	6 / 6
BCPRCS.FOR;1	6 / 6	JFILE5.FOR;1	6 / 6
BGBCFL.EXT;1	2 / 3	JFILE6.FOR;1	7 / 9
BGBMFL.EXT;1	1 / 3	JULIAN.FOR;1	2 / 3
BGBTFL.EXT;1	2 / 3	JUNIT.FOR;1	3 / 3
BGGUTS.EXT;1	29 / 30	LGBMFL.EXT;1	3 / 3
BGICCN.EXT;1	1 / 3	LILGAM.FOR;1	39 / 42
BIGGAM.FOR;1	25 / 27	LILGSP.EXT;1	2 / 3
BLKMOD.FOR;1	13 / 15	LUNITS.EXT;1	3 / 3
BMCOEF.EXT;1	2 / 3	LVNAME.EXT;1	1 / 3
BMFILE.EXT;1	3 / 3	NDXSPC.EXT;1	2 / 3
BMPRCS.FOR;1	9 / 9	NEWICS.FOR;1	15 / 15
BTFILE.EXT;1	1 / 3	NROOTS.EXT;1	2 / 3
BTPRCS.FOR;1	6 / 6	OPBCON.FOR;1	7 / 9
CELLM.FOR;1	7 / 9	OPBMAT.FOR;1	5 / 6
CHEMIN.EXT;1	4 / 6	OPBTRK.FOR;1	4 / 6
CHEMSW.EXT;1	1 / 3	OPCONC.FOR;1	8 / 9
CLOCK1.FOR;1	5 / 6	OPICON.FOR;1	7 / 9
CLOCK2.FOR;1	5 / 6	OPSTAV.FOR;1	19 / 21
CNFILE.EXT;1	1 / 3	OPWRCN.FOR;1	12 / 12
CNPRCS.FOR;1	7 / 9	ORSPBC.FOR;1	4 / 6
CONFAC.EXT;1	1 / 3	ORSPBM.FOR;1	4 / 6
CPUTIM.FOR;1	3 / 3	ORSPIC.FOR;1	4 / 6
CSPHRX.EXT;1	135 / 135	POBCON.FOR;1	7 / 9
DATTIM.FOR;1	4 / 6	POBTRK.FOR;1	7 / 9
DIMENS.EXT;1	2 / 3	POCONC.FOR;1	7 / 9
DUMPHD.FOR;1	7 / 9	POICON.FOR;1	7 / 9
ERRGT.EXT;1	1 / 3	POMXBM.FOR;1	8 / 9
FLNAMS.EXT;1	2 / 3	POSTAV.FOR;1	6 / 6
FSKIP1.FOR;1	7 / 9	PQ1.FOR;1	19 / 21
GTCOEF.EXT;1	2 / 3	PQCOEF.FOR;1	10 / 12
GTILDE.FOR;1	7 / 9	PRGSMY.FOR;1	26 / 30
HDFMTS.EXT;1	1 / 3	RATED.FOR;1	10 / 12
HDSTAV.EXT;1	5 / 6	RDBCON.FOR;1	12 / 15
HEADBC.EXT;1	5 / 6	RDBMAT.FOR;1	12 / 15
HEADBM.EXT;1	9 / 9	RDBT.FOR;1	12 / 12
HEADBT.EXT;1	6 / 6	RDBTRK.FOR;1	10 / 12
HEADCN.EXT;1	6 / 6	RDCHAR.FOR;1	2 / 3
HEADIC.EXT;1	5 / 6	RDCONC.FOR;1	11 / 12
HEADIN.EXT;1	5 / 6	RDFILE.FOR;1	2 / 3
HSTEP.FOR;1	21 / 21	RDHDBM.FOR;1	10 / 12
HSTEPS.EXT;1	2 / 3	RDICON.FOR;1	11 / 12
ICFILE.EXT;1	1 / 3	RDMXBM.FOR;1	10 / 12
ICPRCS.FOR;1	7 / 9	RDSTAV.FOR;1	8 / 9

RKLEVS.EXT;1	1 / 3	TILDE.EXT;1	2 / 3
ROWSCT.EXT;1	2 / 3	TIMER.FOR;1	7 / 9
RTCONS.EXT;1	5 / 6	TSHDBC.EXT;1	2 / 3
RTPHO.FOR;1	7 / 9	TSHDBM.EXT;1	2 / 3
RTSET.FOR;1	12 / 12	TSHDBT.EXT;1	2 / 3
RTSHBC.EXT;1	2 / 3	TSHDCN.EXT;1	2 / 3
RTSHBM.EXT;1	2 / 3	TSHDIC.EXT;1	2 / 3
RTSHBT.EXT;1	2 / 3	TSHDMD.EXT;1	2 / 3
RTSHCN.EXT;1	2 / 3	TSHDSV.EXT;1	2 / 3
RTSHIC.EXT;1	2 / 3	TSTEPS.EXT;1	6 / 6
RUNMGR.FOR;1	19 / 21	UNITIO.EXT;1	1 / 3
RUNTMS.EXT;1	2 / 3	WRCHAR.FOR;1	2 / 3
SPNAME.EXT;1	1 / 3	WRCONC.FOR;1	6 / 9
STOPFL.EXT;1	1 / 3	WRFILE.FOR;1	2 / 3
SUBID.EXT;1	2 / 3	WRSTAV.FOR;1	29 / 30
TEXTPT.EXT;1	3 / 3	ZADVSL.EXT;1	1 / 3

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disk:[ROMLIB.PREPROC]
Total of 239 files 2516 / 2841 blocks

AAAREADME.TXT;1	3 / 3	CVCHEM.COM;1	1 / 3
ARMERG.COM;1	5 / 6	CVCHEM.DFL;1	1 / 3
ARMERG.DFL;1	1 / 3	CVCHEM.DOC;1	29 / 30
ARMERG.FOR;1	14 / 15	CVCHEM.FOR;1	7 / 9
BIDBUF.EXT;1	1 / 3	DEL.COM;1	3 / 3
BUOY_CRCT.DFL;1	1 / 3	DEL.DFL;1	1 / 3
BUOY_CRCT.DOC;1	15 / 15	DEL.FOR;1	8 / 9
BUOY_CRCT.FOR;1	3 / 3	DEVICE.EXT;4	4 / 6
BUOY_INTP.DFL;1	1 / 3	DFLFILES.DAT;2	7 / 9
BUOY_INTP.DOC;1	19 / 21	DOCFILES.DAT;2	5 / 6
BUOY_INTP.FOR;1	40 / 42	DRAW3D.FOR;1	1 / 3
BUOY_PROCESSING.DOC;1	11 / 12	FINDCT.DFL;1	1 / 3
BUOY_RFMT.DFL;1	1 / 3	FINDCT.DOC;1	11 / 12
BUOY_RFMT.DOC;1	17 / 18	FINDCT.FOR;1	2 / 3
BUOY_RFMT.FOR;1	5 / 6	FINDPT.DFL;1	1 / 3
BUOY_STAT.DFL;1	1 / 3	FINDPT.DOC;1	11 / 12
BUOY_STAT.DOC;1	13 / 15	FINDPT.FOR;1	3 / 3
BUOY_STAT.FOR;1	20 / 21	FORFILES.DAT;3	4 / 6
BUOY_WNDW.DFL;1	1 / 3	FORFILES_COMMENTS.DAT;4	7 / 9
BUOY_WNDW.DOC;1	20 / 21	GEOPOL.FOR;1	13 / 15
BUOY_WNDW.FOR;1	8 / 9	GEOPOL_ASCII.FOR;6	13 / 15
CLIPIT.FOR;1	4 / 6	GEOPOL_BIN.FOR;6	13 / 15
CLIPIT_W.FOR;5	8 / 9	GETHUE.FOR;8	31 / 33
COLORS.EXT;4	4 / 6	GETTDEV.FOR;8	15 / 15
COPYTAPE.DFL;1	1 / 3	HDGRAF2.FOR;/5	5 / 6
COPYTAPE.DOC;1	14 / 15	HODO3D.FOR;1	9 / 9
COPYTAPE.FOR;1	3 / 3	HUES.EXT;2	2 / 3
COUNT_STNPERHR.COM;1	1 / 3	IHSHFT.FOR;1	3 / 3
COUNT_STNPERHR.DFL;1	1 / 3	INIT3D.FOR;4	1 / 3
COUNT_STNPERHR.DOC;1	13 / 15	INTPRM.EXT;1	6 / 6
COUNT_STNPERHR.FOR;1	3 / 3	LEN.LIST;2	2 / 3

LINE_C.DFL;1	1 / 3
LINE_C.FOR;1	4 / 6
LINE_CR.DFL;1	1 / 3
LINE_CR.FOR;1	8 / 9
LISTNC.FOR;1	4 / 6
LLWBUF.EXT;2	1 / 3
MAKOPY.FOR;1	2 / 3
MASK.COM;1	2 / 3
MASK.DFL;1	3 / 3
MASK.FOR;1	29 / 30
MBEXTR.COM;1	2 / 3
MBEXTR.DFL;1	1 / 3
MBEXTR.DOC;1	14 / 15
MBEXTR.FOR;1	8 / 9
MBMERGE.COM;1	2 / 3
MBMERGE.DFL;1	1 / 3
MBMERGE.DOC;1	16 / 18
MBMERGE.FOR;1	7 / 9
MOVE3D.FOR;1	1 / 3
NBIOMASS.COM;1	3 / 3
NBIOMASS.DFL;1	1 / 3
NBIOMASS.SAS;1	32 / 33
NUMTXT.FOR;1	13 / 15
OBJLIB.OLB;2	78 / 78
OFFTAPE.COM;1	2 / 3
OFFTAPE.DFL;1	1 / 3
OFFTAPE.DOC;1	13 / 15
OFFTAPE.FOR;1	9 / 9
OPENDEV.FOR;50	28 / 30
PARAMS.EXT;9	1 / 3
PFMFCOPY.COM;1	6 / 6
PFMFCOPY.DFL;1	2 / 3
PFMFCOPY.FOR;1	4 / 6
PILLAR.FOR;1	3 / 3
PILRHP.FOR;1	3 / 3
PIXCEL.EXT;3	2 / 3
PLOTHP.FOR;1	4 / 6
PLOTTK.FOR;1	4 / 6
PNT3D.FOR;1	1 / 3
PREPROC.LIS;3	2 / 3
PREPROCS.LIS;6	14 / 15
PREPROCS_FOR.LIS;4	6 / 6
PREPROC_SEARCH.COM;3	1 / 3
PTEXTR.COM;1	2 / 3
PTEXTR.DFL;1	2 / 3
PTEXTR.DOC;1	33 / 33
PTEXTR.FOR;1	9 / 9
PTMERG.COM;1	2 / 3
PTMERG.DFL;1	1 / 3
PTMERG.DOC;1	15 / 15
PTMERG.FOR;1	7 / 9
QAINFL.CBK;9	1 / 3
QAINFL2.CBK;1	1 / 3
QAINPT.FOR;1	7 / 9
QALIS.EXT;3	1 / 3
QAOSTFL.CBK;4	1 / 3
QAOUTP.COM;1	2 / 3
QAOUTP.DFL;1	1 / 3
QAOUTP.DOC;1	22 / 24
QAOUTP.FOR;1	7 / 9
QARAOB2.FOR;12	11 / 12
QASCFL.CBK;1	1 / 3
QASCFL2.CBK;2	1 / 3
QASRCE.COM;1	2 / 3
QASRCE.DFL;1	1 / 3
QASRCE.DOC;1	23 / 24
QASRCE.FOR;1	6 / 6
QASTACK.COM;1	1 / 3
QASTACK.DFL;1	1 / 3
QASTACK.DOC;1	14 / 15
QASTACK.FOR;1	16 / 18
QASTFL.CBK;5	1 / 3
QASTPT.FOR;1	6 / 6
QASTRT.FOR;1	10 / 12
QATOPIN.CBK;3	1 / 3
QATOPOT.CBK;3	1 / 3
RDATE.FOR;1	4 / 6
RDBUOY.FOR;1	4 / 6
RDFRPT.FOR;1	27 / 27
RDPTE3.FOR;1	12 / 12
RDSRF2.FOR;1	36 / 36
RECBUF.EXT;3	2 / 3
RETFAC.DFL;1	1 / 3
RETFAC.FOR;1	25 / 27
RKUPDTCB4-2.FOR;1	10 / 12
ROMREG.COM;1	1 / 3
ROMREG.DFL;1	1 / 3
ROMREG.SAS;1	15 / 15
RWND_CAN_CLCT.DFL;1	1 / 3
RWND_CAN_CLCT.FOR;1	25 / 27
RWND_END.DFL;1	1 / 3
RWND_END.FOR;1	9 / 9
RWND_PROCESSING.DOC;1	19 / 21
RWND_RFMT.DFL;1	1 / 3
RWND_RFMT.FOR;1	36 / 36
RWND_US_CLCT.DFL;1	1 / 3
RWND_US_CLCT.FOR;1	22 / 24
RWND_V2.DFL;1	1 / 3
RWND_V2.FOR;1	11 / 12
RWND_WNDW.DFL;1	1 / 3
RWND_WNDW.FOR;1	20 / 21
SEANFL.EXT;7	1 / 3
SETHUES.FOR;20	7 / 9
SFCCAN_CLCT.COM;1	1 / 3
SFCCAN_CLCT.DFL;1	1 / 3
SFCCAN_CLCT.DOC;1	32 / 33
SFCCAN_CLCT.FOR;1	40 / 42
SFCCAN_WNDW.COM;1	2 / 3
SFCCAN_WNDW.DFL;1	1 / 3
SFCCAN_WNDW.DOC;1	28 / 30
SFCCAN_WNDW.FOR;1	11 / 12
SFCR_HRFILL.COM;1	1 / 3

SFCR_HRFILL.DFL;1	1 / 3
SFCR_HRFILL.DOC;1	25 / 27
SFCR_HRFILL.FOR;1	6 / 6
SFCUS_CLCT.COM;1	2 / 3
SFCUS_CLCT.DFL;1	1 / 3
SFCUS_CLCT.DOC;1	32 / 33
SFCUS_CLCT.FOR;1	67 / 69
SFCUS_CLD_INTP.COM;1	1 / 3
SFCUS_CLD_INTP.DFL;1	1 / 3
SFCUS_CLD_INTP.DOC;1	24 / 24
SFCUS_CLD_INTP.FOR;1	20 / 21
SFCUS_WNDW.COM;1	2 / 3
SFCUS_WNDW.DFL;1	1 / 3
SFCUS_WNDW.DOC;1	28 / 30
SFCUS_WNDW.FOR;1	11 / 12
SFC_PROCESSING.DOC;1	15 / 15
SFC_RFMT.COM;1	1 / 3
SFC_RFMT.DFL;1	1 / 3
SFC_RFMT.DOC;1	23 / 24
SFC_RFMT.FOR;1	6 / 6
SFC_VRFY.COM;1	1 / 3
SFC_VRFY.DFL;1	1 / 3
SFC_VRFY.DOC;1	24 / 24
SFC_VRFY.FOR;1	40 / 42
SHOWMET.FOR;47	69 / 69
SHOWMET.MAKE;1	5 / 6
SHUTDEV.FOR;23	8 / 9
SKEWT3.FOR;5	31 / 33
SPCLIS.EXT;6	2 / 3
SRFILE.EXT;12	1 / 3
SRTREC.FOR;1	12 / 12
STAT_RFMT.COM;1	1 / 3
STAT_RFMT.DFL;1	1 / 3
STAT_RFMT.DOC;1	17 / 18
STAT_RFMT.FOR;1	4 / 6
TEMPROC.COM;1	2 / 3
TEMPROC.DFL;1	2 / 3
TEMPROC.FOR;1	9 / 9
TILPRM.EXT;17	4 / 6
TMWBUF.EXT;1	1 / 3
TOPEMI.COM;1	2 / 3
TOPEMI.DFL;1	1 / 3
TOPEMI.DOC;1	13 / 15
TOPEMI.FOR;1	6 / 6
TOPLIS.EXT;3	1 / 3
TOPSRT.FOR;1	9 / 9
TRANS3.FOR;1	7 / 9
UGT.OLB;5	439 / 441
VATAPE.FOR;1	8 / 9
WINDOW.FOR;1	1 / 3
WINDOWAR.COM;1	5 / 6
WINDOWAR.DFL;1	1 / 3
WINDOWAR.FOR;1	5 / 6
WINDOWMB.COM;1	4 / 6
WINDOWMB.DFL;1	1 / 3
WINDOWMB.DOC;1	18 / 18
WINDOWMB.FOR;1	5 / 6
WINDOWPT.COM;1	2 / 3
WINDOWPT.DFL;1	1 / 3
WINDOWPT.DOC;1	18 / 18
WINDOWPT.FOR;1	5 / 6
XTRACTLL.DFL;1	1 / 3
XTRACTLL.DOC;1	17 / 18
XTRACTLL.FOR;1	7 / 9
YULIAN.FOR;1	3 / 3

***disk*:[ROMLIB.PROCES]**

Total of 544 files 3793 / 4440 blocks

ABGCHK.EXT;1	1 / 3
ABGUTS.EXT;1	23 / 24
ABTERM.FOR;1	2 / 3
ABTERM5.FOR;1	1 / 3
ADJFAC.EXT;1	2 / 3
ADPFMF.FOR;1	3 / 3
ALBALF.FOR;1	7 / 9
ALLFLX.FOR;1	10 / 12
ALLOC.FOR;1	9 / 9
ALTSOL.FOR;1	5 / 6
APPROX.FOR;1	15 / 15
ARCEST.FOR;1	4 / 6
AREAC.FOR;1	2 / 3
ARESEL.FOR;1	10 / 12
ARSHFT.FOR;1	6 / 6
AVGWAT.FOR;1	5 / 6
BARS.FOR;1	17 / 18
BASEV.EXT;1	1 / 3
BASEVA.FOR;1	7 / 9
BCON.EXT;1	2 / 3
BLKBC.FOR;1	3 / 6
BLKBMT.FOR;1	9 / 9
BLKBTR.FOR;1	2 / 3
BLKCLN.FOR;1	5 / 6
BLKIC.FOR;1	4 / 6
BLKIMT.FOR;1	6 / 6

BLKMOB.FOR;1	5 / 6
BM1BUF.EXT;1	1 / 3
BM1VAR.EXT;1	3 / 3
BM2BUF.EXT;1	1 / 3
BM2VAR.EXT;1	2 / 3
BMCOEF.FOR;1	10 / 12
BMLUNS.EXT;1	2 / 3
BMMFLS.EXT;1	2 / 3
BMSPEC.EXT;1	2 / 3
BMTPRM.EXT;1	2 / 3
BOYANT.FOR;1	11 / 12
BQ3LAM.FOR;1	13 / 15
BQ3PHI.FOR;1	13 / 15
BTLUNS.EXT;1	1 / 3
BTMFLS.EXT;1	2 / 3
BTRKBF.EXT;1	1 / 3
BTRKVR.EXT;1	2 / 3
BTRPRM.EXT;1	2 / 3
BUODAT.EXT;1	1 / 3
BUOGRD.EXT;1	1 / 3
BUOPRM.EXT;1	1 / 3
BUOYPR.FOR;1	13 / 15
CD.EXT;1	1 / 3
CELHTS.EXT;1	1 / 3
CHECK.FOR;1	12 / 12
CLDATN.FOR;1	25 / 27
CLDCVR.EXT;1	1 / 3
CLDFN.FOR;1	2 / 3
CLDFN8.FOR;1	2 / 3
CLDMOD.FOR;1	27 / 27
CLDPAR.FOR;1	5 / 6
CLDRAD.FOR;1	6 / 6
CLOCK.FOR;1	6 / 6
CMPAUX.FOR;1	7 / 9
CMSA.EXT;1	1 / 3
CNTRL.EXT;1	2 / 3
CNTRLPT.EXT;1	2 / 3
CNVBUF.EXT;1	2 / 3
COLDGR.FOR;1	8 / 9
CONDIF.FOR;1	4 / 6
CONVRG.FOR;1	18 / 18
CONWIN.FOR;1	3 / 3
CORF.EXT;1	1 / 3
CORFOR.FOR;1	3 / 3
CORRECT.FOR;1	35 / 36
COUPLE.FOR;1	6 / 6
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GMOVS8.FOR;1	2 / 3
GRADX6.FOR;1	4 / 6
GRBRNS.FOR;1	7 / 9
GRBUOY.FOR;1	5 / 6
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GRID1.EXT;1	1 / 3
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IMLUNS.EXT;1	2 / 3
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IMTIME.EXT;1	2 / 3
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INTPRM.EXT;1	6 / 6
INTRNL.EXT;1	3 / 3
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LCLVAL.FOR;1	4 / 6
LFCNLV.EXT;1	1 / 3
LINMIN.FOR;1	30 / 30
LISTBM.FOR;1	13 / 15
LISTBT.FOR;1	4 / 6
LISTIM.FOR;1	7 / 9
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MBAR25.FOR;1	14 / 15
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METDAT.EXT;1	4 / 6
METPRM.EXT;1	3 / 3
METVAR.EXT;1	2 / 3
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MINMAX.FOR;1	8 / 9
MINMX2.FOR;1	5 / 6
MOBPRM.EXT;1	2 / 3
MODTIM.EXT;1	2 / 3
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OFFNDX.FOR;1	2 / 3
OPIMET.FOR;1	5 / 6
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P01G.CPR;1	1 / 3
P01G.DFL;1	2 / 3
P01G.FOR;1	6 / 6
P01G.LNK;1	5 / 6
P02G.COM;1	2 / 3
P02G.CPR;1	1 / 3
P02G.DFL;1	2 / 3
P02G.FOR;1	10 / 12
P02G.LNK;1	4 / 6
P03G.COM;1	2 / 3
P03G.CPR;1	1 / 3
P03G.DFL;1	3 / 3
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P03G.LNK;1	7 / 9
P04G.COM;1	3 / 3
P04G.CPR;1	1 / 3
P04G.DFL;1	5 / 6
P04G.FOR;1	22 / 24
P04G.LNK;1	12 / 12
P05G.COM;1	2 / 3
P05G.CPR;1	1 / 3
P05G.DFL;1	4 / 6
P05G.FOR;1	15 / 15
P05G.LNK;1	9 / 9
P06G.COM;1	2 / 3
P06G.CPR;1	1 / 3
P06G.DFL;1	2 / 3
P06G.FOR;1	25 / 27
P06G.LNK;1	5 / 6
P07G.COM;1	3 / 3
P07G.CPR;1	1 / 3
P07G.DFL;1	4 / 6
P07G.FOR;1	17 / 18
P07G.LNK;1	11 / 12
P08G.COM;1	3 / 3
P08G.CPR;1	1 / 3
P08G.DFL;1	4 / 6
P08G.FOR;1	17 / 18
P08G.LNK;1	10 / 12
P09G.COM;1	4 / 6
P09G.CPR;1	1 / 3
P09G.DFL;1	3 / 3
P09G.FOR;1	7 / 9
P09G.LNK;1	7 / 9
P10G.COM;1	4 / 6
P10G.CPR;1	1 / 3
P10G.DFL;1	3 / 3
P10G.FOR;1	26 / 27
P10G.LNK;1	7 / 9

P11G.COM;1	4 / 6
P11G.CPR;1	1 / 3
P11G.DFL;1	6 / 6
P11G.FOR;1	34 / 36
P11G.LNK;1	15 / 15
P12G.COM;1	6 / 6
P12G.CPR;1	1 / 3
P12G.DFL;1	3 / 3
P12G.FOR;1	19 / 21
P12G.LNK;1	6 / 6
P13G.COM;1	1 / 3
P13G.CPR;1	1 / 3
P13G.DFL;1	2 / 3
P13G.FOR;1	5 / 6
P13G.LNK;1	5 / 6
P14G.COM;1	3 / 3
P14G.CPR;1	1 / 3
P14G.DFL;1	3 / 3
P14G.FOR;1	22 / 24
P14G.LNK;1	8 / 9
P15G.COM;1	3 / 3
P15G.CPR;1	1 / 3
P15G.DFL;1	2 / 3
P15G.FOR;1	28 / 30
P15G.LNK;1	6 / 6
P16G.COM;1	2 / 3
P16G.CPR;1	1 / 3
P16G.DFL;1	3 / 3
P16G.FOR;1	17 / 18
P16G.LNK;1	7 / 9
P17G.COM;1	3 / 3
P17G.CPR;1	1 / 3
P17G.DFL;1	2 / 3
P17G.FOR;1	9 / 9
P17G.LNK;1	5 / 6
P18.FOR;1	15 / 15
P19G.COM;1	2 / 3
P19G.CPR;1	1 / 3
P19G.DFL;1	2 / 3
P19G.FOR;1	8 / 9
P19G.LNK;1	6 / 6
P20.FOR;1	13 / 15
P21G.COM;1	2 / 3
P21G.CPR;1	1 / 3
P21G.DFL;1	2 / 3
P21G.FOR;1	14 / 15
P21G.LNK;1	3 / 3
P22G.COM;1	2 / 3
P22G.CPR;1	1 / 3
P22G.DFL;1	2 / 3
P22G.FOR;1	19 / 21
P22G.LNK;1	4 / 6
P23G.COM;1	2 / 3
P23G.CPR;1	1 / 3
P23G.DFL;1	3 / 3
P23G.FOR;1	24 / 24
P23G.LNK;1	6 / 6
P24G.COM;1	2 / 3
P24G.CPR;1	1 / 3
P24G.DFL;1	2 / 3
P24G.FOR;1	25 / 27
P24G.LNK;1	3 / 3
P25G.COM;1	1 / 3
P25G.CPR;1	1 / 3
P25G.DFL;1	2 / 3
P25G.FOR;1	12 / 12
P25G.LNK;1	5 / 6
P26G.COM;1	3 / 3
P26G.CPR;1	2 / 3
P26G.DFL;1	3 / 3
P26G.FOR;1	13 / 18
P26G.LNK;1	6 / 6
P27G.COM;1	3 / 3
P27G.CPR;1	1 / 3
P27G.DFL;1	3 / 3
P27G.FOR;1	37 / 39
P27G.LNK;1	7 / 9
P29G.COM;1	5 / 6
P29G.CPR;1	2 / 3
P29G.DFL;1	3 / 3
P29G.DOC;1	3 / 3
P29G.FOR;1	26 / 27
P29G.LNK;1	8 / 9
P29PRM.EXT;1	1 / 3
P31G.COM;1	2 / 3
P31G.CPR;1	1 / 3
P31G.DFL;1	1 / 3
P31G.FOR;1	6 / 6
P31G.LNK;1	3 / 3
P32G.COM;1	3 / 3
P32G.CPR;1	1 / 3
P32G.DFL;1	2 / 3
P32G.FOR;1	19 / 21
P32G.LNK;1	6 / 6
P33G.COM;1	3 / 3
P33G.CPR;1	1 / 3
P33G.DFL;1	3 / 3
P33G.FOR;1	33 / 33
P33G.LNK;1	7 / 9
P34G.COM;1	4 / 6
P34G.CPR;1	2 / 3
P34G.DFL;1	1 / 3
P34G.FOR;1	24 / 24
P34G.LNK;1	3 / 3
P38G.COM;1	2 / 3
P38G.CPR;1	2 / 12
P38G.DFL;1	3 / 3
P38G.FOR;1	10 / 12
P38G.LNK;1	7 / 9
P39G.COM;1	5 / 6
P39G.CPR;1	2 / 12
P39G.DFL;1	4 / 6

P39G.FOR;1	12 / 12
P39G.LNK;1	9 / 9
P40G.COM;1	2 / 3
P40G.CPR;1	2 / 12
P40G.DFL;1	4 / 6
P40G.FOR;1	9 / 9
P40G.LNK;1	9 / 9
P41G.FOR;1	15 / 15
PARAM.EXT;1	1 / 3
PARAMS.FOR;1	9 / 9
PARM11.EXT;1	22 / 24
PARM22.EXT;1	1 / 3
PARM24.EXT;1	1 / 3
PARM3.EXT;1	4 / 6
PARM4.EXT;1	7 / 9
PARM7.EXT;1	13 / 15
PBLMIX.FOR;1	11 / 12
PERTV.EXT;1	1 / 3
PF1.EXT;1	3 / 3
PF11.EXT;1	1 / 3
PF19.EXT;1	1 / 3
PF42.EXT;1	1 / 3
PF56.EXT;1	1 / 3
PF6.EXT;1	3 / 3
PFILE6.EXT;1	3 / 3
PFMFIN.EXT;1	5 / 6
POIMET.FOR;1	5 / 6
POLY.FOR;1	5 / 6
PONSEL.FOR;1	11 / 12
POW.FOR;1	5 / 6
PRES.EXT;1	1 / 3
PRIMES.FOR;1	6 / 6
PRNTGRD.FOR;1	6 / 6
PROCES.EXT;1	11 / 12
PROCMB.FOR;1	52 / 60
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PROFIL.FOR;1	9 / 9
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PSIM.FOR;1	2 / 3
PTOZ.FOR;1	2 / 3
PTSHFT.FOR;1	5 / 6
QFIELD.FOR;1	5 / 6
QFLUX.EXT;1	1 / 3
QFLUX.FOR;1	6 / 6
QFLUX8.FOR;1	5 / 6
QFORM.FOR;1	2 / 3
QHIST.EXT;1	1 / 3
QMULUS.EXT;1	1 / 3
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RADLW8.FOR;1	3 / 3
RADLWV.FOR;1	2 / 3
RADPFL.FOR;1	10 / 12
RADRAG.FOR;1	11 / 12
RADTIM.FOR;1	7 / 9
RADVAR.EXT;1	2 / 3
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RDEMIS.FOR;1	6 / 6
RDHTS.FOR;1	18 / 18
RDIM.FOR;1	11 / 12
RDIMET.FOR;1	8 / 9
RDMET.FOR;1	6 / 6
RDPFMF.FOR;1	5 / 6
RDPLOT.FOR;1	7 / 9
RDPRM2.FOR;1	7 / 9
RDPTCS.FOR;1	7 / 9
RDSAPT.FOR;1	11 / 12
RDSPC.FOR;1	6 / 6
RDSRFM.FOR;1	15 / 15
RDSTAK.FOR;1	12 / 12
RDTFAC.FOR;1	26 / 27
RDWIND.FOR;1	7 / 9
RDWNDM.FOR;1	12 / 12
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REFRSH.FOR;1	11 / 12
REPORT.FOR;1	10 / 12
RESIST.EXT;1	2 / 3
RLEVEL.FOR;1	3 / 3
RST.FOR;1	29 / 30
RTIMOD.FOR;1	120 / 120
RTSHIM.EXT;1	2 / 3
RWND25.FOR;1	7 / 9
SATEMP.FOR;1	3 / 3
SEGSUB.FOR;1	5 / 6
SETBCS.FOR;1	30 / 30
SETCLK.FOR;1	4 / 6
SETUP.FOR;1	6 / 6
SETUP11.FOR;1	16 / 18
SETUP7.FOR;1	12 / 12
SFCHRS.FOR;1	14 / 15
SFCLEV.FOR;1	9 / 9
SFCMET.EXT;1	1 / 3
SFCMET.FOR;1	5 / 6
SFCMT8.EXT;1	1 / 3
SIGMAT.FOR;1	8 / 9
SLMAT.FOR;1	18 / 18
SLPRES.FOR;1	8 / 9
SMOOTH.FOR;1	5 / 6
SMUTHR.FOR;1	8 / 9
SOLENG.FOR;1	12 / 12
SOLGRP.EXT;1	3 / 3
SOLPRM.EXT;1	10 / 12
SOLVDH.FOR;1	30 / 30
SOLVER.FOR;1	31 / 33
SOLVUV.FOR;1	71 / 72
SORTAI.FOR;1	3 / 3
SORTAR.FOR;1	3 / 3
SPCBUF.EXT;1	1 / 3

SPCEXP.FOR;1	6 / 6	UAGRID.EXT;1	1 / 3
SPCFAC.EXT;1	3 / 3	UNITNOS.EXT;1	5 / 6
SPCLIS.EXT;1	3 / 3	UNSTBL.FOR;1	8 / 9
SPCVAR.EXT;1	1 / 3	UNSWAT.FOR;1	9 / 9
SRFILE.EXT;1	1 / 3	UV11.FOR;1	26 / 27
SRTREC.FOR;1	12 / 12	VERMET.FOR;1	9 / 9
STABLE.FOR;1	6 / 6	VOCLIS.EXT;1	2 / 3
STATNS.EXT;1	4 / 6	VOLCAL.FOR;1	2 / 3
STAWAT.FOR;1	9 / 9	VOLFLX.FOR;1	31 / 33
STBVAR.EXT;1	1 / 3	VPROFL.FOR;1	12 / 12
STINFO.FOR;1	4 / 6	VRSPBM.FOR;1	4 / 6
STKDAT.EXT;1	2 / 3	VRSPIM.FOR;1	4 / 6
STKDAT2.EXT;1	2 / 3	WATGRD.EXT;1	1 / 3
STKDATA.EXT;1	2 / 3	WEIGHT.FOR;1	5 / 6
STKHSH.FOR;1	7 / 9	WEIGHT11.FOR;1	6 / 6
STKMRG.FOR;1	5 / 6	WGHTFN.EXT;1	2 / 3
STUNST.EXT;1	3 / 3	WHICH1.FOR;1	3 / 3
SURDAT.EXT;1	4 / 6	WNDFIX.FOR;1	5 / 6
SURMET.EXT;1	4 / 6	WRBC.FOR;1	10 / 12
SWAPEM.FOR;1	4 / 6	WRBMAT.FOR;1	11 / 12
SWAPSTK.FOR;1	4 / 6	WRBTRK.FOR;1	6 / 6
TDPGRD.FOR;1	3 / 3	WRHDBM.FOR;1	17 / 18
TIMEBM.FOR;1	6 / 6	WRHDBT.FOR;1	10 / 12
TIMEBT.FOR;1	5 / 6	WRHDIM.FOR;1	15 / 15
TIMEIM.FOR;1	5 / 6	WRIC.FOR;1	9 / 9
TMPRAL.FOR;1	3 / 3	WRIMET.FOR;1	7 / 9
TOPSET.FOR;1	1 / 3	WRPLOT.FOR;1	8 / 9
TRCONC.EXT;1	1 / 3	WRTOBS.FOR;1	8 / 9
TRNSEM.FOR;1	8 / 9	XVCCLC.FOR;1	4 / 6
TSCALE.FOR;1	3 / 3	Z0.EXT;1	1 / 3
TSHDIM.EXT;1	2 / 3	ZEN.FOR;1	24 / 24
TSHIFT.FOR;1	4 / 6	ZGUTS.EXT;1	3 / 3
TSMUTH.FOR;1	4 / 6	ZONEIT.FOR;1	3 / 3
TSTFN.FOR;1	9 / 9	ZT.EXT;1	1 / 3
U1.EXT;1	1 / 3	ZTHAT.EXT;1	1 / 3

SECTION 3

BUILDING OBJECT FILES, LINK STREAMS, AND EXECUTABLE FILES USING VAX/VMS

3.1 BUILDING OBJECT FILES

The directories that require .OBJ files are [ROMLIB.*y*] where *y* = UTILIO, PROCES, FILESMAN, PREPROC, RPROCS, and ROXAN (also CORE, if you run the Core Model on a VAX). Output files are sent to [ROMOBJ.*y*] directories.

Note: on the distribution tapes, we have included the output data files from most of the preprocessors. You will only need to compile, link, and run three preprocessors: TEMPROC, MASK, and PFMFCOPY. However, we have provided the code for the other preprocessors so that you can execute the ROM using different sets of raw data.

To build object files, you will need to:

- Run the command procedure, ASSIGNEXT.COM, in interactive mode. This command file assigns all the logical names of the directories for all the text INCLUDE files contained in the FORTRAN files. (Remember that the logicals are assigned only during the current session.) For example, set the default directory to *disk*:[ROMLIB.COMPILE] and execute the command:

```
@ASSIGNEXT
```

- Run FOROTHER.COM, which needs two inputs: (a) the source directory, and (b) the destination directory. For example,

```
@FOROTHER.COM  disk:[ROMLIB.PROCES]  disk:[ROMOBJ.PROCES]
```

  (You may want to submit a batch job with this instruction in it; the procedure will take a significant amount of time.)

- Choose N (for no), when you are asked if you want to compile/debug.

- Repeat the procedures above, for all directories that require .OBJ files.

  Note that when you use FOROTHER.COM for [ROMLIB.ROXAN], compilation of CONCCMP.FOR will fail. You will need to compile this file by itself, as shown below:

```
FORTRAN / EXTEND CONCCMP.FOR / OBJECT = [ROMOBJ.ROXAN]
```

- Consider deleting the *.LIS (FORTRAN compiler listing) files created by FOR-OTHER.COM; you may want to do this to save computer storage space. You should also delete FORALL.DAT and FORALL.RUN, if they are present.

3.2 BUILDING LINK STREAMS

VAX/VMS command procedures are used to link the .OBJ files and create executable files. The directories that require link streams are the same [ROMLIB. *y*] directories that require object files (see Section 3.1).

In each directory, you will need to edit the .DFL files and change the current disk pack (i.e., MET15) to the name of your disk pack. Then, you will need to:

- Edit the following [ROMLIB.COMPILE] files: BLDLNK.COM, BLDLNK2.COM, BLDLNK3.COM, and BLDLNK4.COM--changing the second line to include the name of your disk pack.
- Submit BLDLNK.COM, BLDLNK2.COM, BLDLNK3.COM, and BLDLNK4.COM in batch or interactive mode. Each command file invokes CRLINK2.COM for every .DFL file and creates the corresponding link stream. The link streams that are created are sent to the directories: [ROMLIB.PROCES], [ROMLIB.PREPROC], [ROMLIB.RPROCS], and [ROMLIB.ROXAN], respectively.

3.3 BUILDING EXECUTABLE FILES

The directories that require .EXE files are the [ROMLIB. *y*] directories listed in Section 3.1. Executable files are sent to [ROMEXE .*y*] directories.

- Set the default directory to the directory for which you want to build .EXE files.
- Invoke each .LNK file in the directory.

Listed below are examples:

- For the processors in [ROMLIB.PROCES], i.e., PxxG.LNK:

```
@P01G.LNK
```

- For the preprocessors in [ROMLIB.PREPROC, i.e., <*name*>.LNK:

```
@RWND_US_CLCT.LNK
```

SECTION 4

STEPS TO BUILD THE PF/MF DATABASE FILE FOR THE ROM PROCESSOR NETWORK

The Processor Files (PF) and Model Files (MF) are standard files that are written and read only by the G-series processors, P*xx*G (and not read by the Core Model). Detailed descriptions of the individual files (PF*nnn* and MF*nnn*) used by each processor are provided in Part 2 of the ROM User's Guide. The files are ASCII FORTRAN, direct access, unformatted files. Each file contains one standard header record followed by a maximum of 72 data records. This use of standard files allows the data to flow through the ROM Processor Network in a traceable and well-defined manner, making it easy to perform quality control on the standard files.

The PF/MF database file (DIRECT2.DAT) contains information about the files, including: block size, logical record length, and number of parameters on a file.

Step 1. Before building the PF/MF database file, you need to make sure that you have executable files in the *disk*:[ROMEXE.FILESMAN] directory.

Step 2. You need to make sure that you have the following files in the *disk*:[ROM2_1.ROMNET] directory. Note: the format of these files cannot be changed.

- CR1IN2.DAT--this file contains information about each G-series processor: its description, stage number, and input/output file names.
- CR4IN2.DAT--this file contains a description of each input and output file used by the processors, including: file description, number of parameters, and units on each parameter. Note that if a file is not a PF or MF, it is coded as -999.
- PROGDB5.DAT--this file contains the block size and logical record length for each PF/MF file.
- CR14.COM, CR6.COM, and CR6.CPR--this group consists of two run stream files and a control cards file used to build the PF/MF database file.

Step 3. Submit *disk*:[ROM2_1.ROMNET]CR14.COM.
CR14.COM (see below) executes four programs that create four binary files: PROGDB1.DAT, PROGDB2.DAT, PROGDB3.DAT, and PROGDB4.DAT. These four files define the network of G-series processors. You will need to edit CR14.COM if you do not use our directory names.

```
************************  CR14.COM  ********************************
$ ! [accounting code]
$ SET VERIFY
$ ! RUN STREAM IS IN MET15:[ROM2_1.ROMNET]CR14.COM
$ ASSIGN NL:                                                SYS$PRINT
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB1.DAT                   PF_MF_PROGS
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB2.DAT                   PF_MF_XREF
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB3.DAT                   PF_MF_STAGES
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB4.DAT                   PF_MF_DESC
$ ASSIGN /USER_MODE MET15:[ROM2_1.ROMNET]CR1IN2.DAT         SYS$INPUT
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]CREATE1
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]CREATE2
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]CREATE3
9                                  !Number of processor stages
0, 1, 2, 3, 4, 5, 6, 7, 8          !List of stage numbers
$ ASSIGN /USER_MODE MET15:[ROM2_1.ROMNET]CR4IN2.DAT  SYS$INPUT
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]CREATE4
***********************************************************************
```

Step 4. Read the log file from the batch job for CR14.COM to check the job.

All error messages are preceded by "****". There may be some warning messages that are informative but not fatal; these are shown below.

a. WARNING IN WRPGMS
FILE file IS WRITTEN BY NO PROGRAM

This error message means that the file is probably not a PF or MF file, but is a "raw" data file going into a processor. The file is most likely written by a program that the PF/MF database file does not know about (e.g., a preprocessor). However, if you get this message for a PF or MF file, it should be regarded as a real error.

b. WARNING in subroutine RDPGMS
File "FILE" is read by no program

This error message occurs for files that are not read in by another processor (i.e., files that are used for analysis only).

c. SEVERE WARNING IN VALID1
PROCESSOR P*xx*G IN STAGE *x* MUST BE MOVED TO STAGE *x*

This error occurs for certain processors.

For Processor P34G, this error message may result because the software does not check enough characters to see the difference in files AREAWKZ (input) and AREAWK (output). The program thinks that the same file is used for input and output.

For Processor P29G, which uses meteorology history files, this error occurs because the same files *are* being used for input and output. Each run of the processor writes an ending record to each history file; this ending data is read in as beginning data by the next run.

Ignore the above SEVERE WARNING messages.

d. WARNING IN VALID1
PROCESSOR PxxG IN STAGE *x* MAY BE MOVED TO STAGE *x*

This warning occurs when inputs and outputs are checked. You should ignore it. The processors are organized into stages (see Section 5.1). Stages 1 to 8 are time-dependent, i.e., each processor in the stage must run to completion prior to another stage. However, Stage 0 is time-independent. This warning occurs because we have chosen to wait until Stage 1 to begin time-dependent processing, even if the processor could be run sooner.

e. INVALID FILE NAME IN NAMES FILE, xxxxx, READ IN ROUTINE WRRPT

This message means that the PF or MF file number is not being used. Ignore the message.

Step 5. Submit *disk*:[ROM2_1.ROMNET]CR6.COM.

CR6.COM (see below) will create the actual PF/MF database file, DIRECT2.DAT, using data files PROGDB4.DAT and PROGDB5.DAT. It will also create DIRECT2.LIS--a listing of the information in DIRECT2.DAT. (DIRECT2.DAT is a binary file and cannot be read directly). CR6.COM requires CR6.CPR (see below), a control cards file that supplies regional parameters.

In the event that you need to recreate DIRECT2.DAT *for any reason, erase the old version on disk or rename it. Otherwise, the old copy will be revised (and the original will not be saved).*

You will need to edit the CR6.COM file if you do not use our directory names.

If you intend to run the model on a region other than ROMNET, you will need to change the maximum number of columns and rows in file CR6.CPR and CR4IN2. These dimensions are given in Appendix A of Part 2 of the ROM User's Guide; you need to input the parameters NCOLL and NROWW of the *region1* grid domain. In addition, you will have to use formulas in the CREATE6.FOR code to change block and record sizes in the PROGDB5.DAT file; note: these changes are not minor.

```
************************ CR6.COM ****************************************
$ ! [account code]
$ SET VERIFY
$ ! RUN STREAM IS IN MET15:[ROM2_1.ROMNET]CR6.COM
$ ASSIGN MLAB: SYS$PRINT
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB4.DAT          PF_MF_DESC
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB5.DAT          PFMFBLKSIZES
$ ASSIGN MET15:[ROM2_1.ROMNET]DIRECT2.DAT          PFMFDIR
$ ASSIGN MET15:[ROM2_1.ROMNET]DIRECT2.LIS          PRINTFILE
$ SHOW PROCESS / ACCOUNTING
$ !
$ TYPE MET15:[ROM2_1.ROMNET]CR6.CPR
$ ASSIGN / USER_MODE MET15:[ROM2_1.ROMNET]CR6.CPR   SYS$INPUT
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]CREATE6
************************************************************************


************************* CR6.CPR ***********************************
100      ! REGION SERIES INDICATOR (100 = ROMNET)
30       ! MAXIMUM NUMBER OF UPPER-AIR METEOROLOGY STATIONS IN REGION
250      ! MAXIMUM NUMBER OF SURFACE METEOROLOGY STATIONS IN REGION
100      ! MAXIMUM NUMBER OF VERTICAL SOUNDINGS
19       ! MAXIMUM NUMBER OF PARAMETERS ALLOWED IN A PF/MF FILE
64       ! MAXIMUM NUMBER OF COLUMNS IN REGION
52       ! MAXIMUM NUMBER OF ROWS IN REGION
************************************************************************
```

Step 6. Read the log file from CR6.COM to check the job. All error messages are preceded by "****". If there are no major errors, the PF/MF database file (DIRECT2.DAT) is ready for any ROM processor to use. The "errors" that you may encounter in the log are the same as those described in Step 4 above.

Step 7. It is <u>not</u> possible to directly read DIRECT2.DAT, because it is written in binary. To produce a document that reflects the current contents of the file, submit LIST1.COM.

```
************************ LIST1.COM ********************************
$ ! [account code]
$ SET VERIFY
$ ! RUN STREAM IS IN MET15:[ROM2_1.ROMNET]LIST1.COM
$ ASSIGN MLAB:                                     SYS$PRINT
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB1.DAT          PF_MF_PROGS
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB2.DAT          PF_MF_XREF
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB3.DAT          PF_MF_STAGES
$ ASSIGN MET15:[ROM2_1.ROMNET]PROGDB4.DAT          PF_MF_DESC
$ ASSIGN MET15:[ROM2_1.ROMNET]PFMF_ROMNET.LIS      PRINTFILE
$ RUN DISK$VAXSET:[ROMEXE.FILESMAN]LIST1
************************************************************************
```

Step 8. Before executing any processor, all PF/MF files that are to be written to must be "initialized" with a file header. To do this, edit the files: CRTFLS.COM;*x* (where *x* = 1 to 4), with your disk pack name, directory names, file name extensions, and start dates. Then, submit the run stream. An example run stream for six MF files is shown below.

```
********************  CRTFLS.COM  ************************************
$ ! [account code]
$ SET VERIFY
$ ! Run stream is in file MET15:[ROM2_1.ROMNET]CRTFLS.COM
$ ASSIGN MLAB:                                        SYS$PRINT
$ ASSIGN MET15:[ROM2_1.ROMNET]DIRECT2.DAT       PFMFDIR
$ SAVE_PROT=F$ENVIRONMENT("PROTECTION")
$ SET PROTECTION=(SYSTEM:RWED, OWNER:RWE, GROUP:RE, WORLD) /DEFAULT
$ ! File, Start date, Hour_1, Hour increment, Hours to initialize
$ RUN MET15:[ROMEXE.FILESMAN]CRTFLS
'MET15' 'ROMNET1'
'MF103Z' 88184 12 01 72
'MF104Z' 88184 12 01 72
'MF105Z' 88184 12 01 72
'MF106Z' 88184 12 01 72
'MF107Z' 88184 12 01 72
'MF108Z' 88184 12 01 72
' ' 0 0 0 0
$ SET PROTECTION=('SAVE_PROT')/DEFAULT
***************************************************************************
```

Notes:

(a) The list is terminated with `' ' 0 0 0 0`.

(b) MET15 is the disk pack name.

(c) ROMNET1 is the top-level directory name.

(d) The meaning of the numbers after the files is as follows:

- 88184 is the Julian date for the first day of the scenario, in the format *YYDDD*.
  Note: the subdirectory name is D88184, which you need to create prior to execution of the run stream.
  [Do not add the "D" in this run stream; if you do, the program will not run.]
- 12 is the start hour (in EST) of the model run.
- 01 is the number of hours on a record.
- 72 is the number of records.

(e) All processor and model files take the above values, except:

- All time-independent files; these take the form of `00000 12 00 01`
- `'PF191Z' YYDDD 00 24 03` (daily, for three days)
- `'PF192Z' YYDDD 00 24 31` (daily, for one month; *YYDDD* is the first day of the month)

(f) Using CRTFLS.COM;*x* will relieve you of the burden of establishing the correct settings for each file.

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SECTION 5

RUNNING THE ROM PROCESSOR NETWORK FOR THE BENCHMARK DATA

Figure 1 shows the ROM Processor Network. You will notice Processors P36G and P41G, documented in Part 2 of the ROM User's Guide, are not shown in the figure; these processors are no longer used for emissions processing. In addition, for running the benchmark data, we have provided you with the output data files (listed in Section 1) for P21G, P24G, P31G, and P34G; these processors function as preprocessors. You will, however, need to run these processors if you execute the ROM with your own emissions data.

Table 4 provides a description of each of the ROM Processors by functional category--initial and boundary conditions, land use, terrain, meteorology, and emissions. A full description of each ROM processor is contained in Part 2 of the ROM User's Guide.

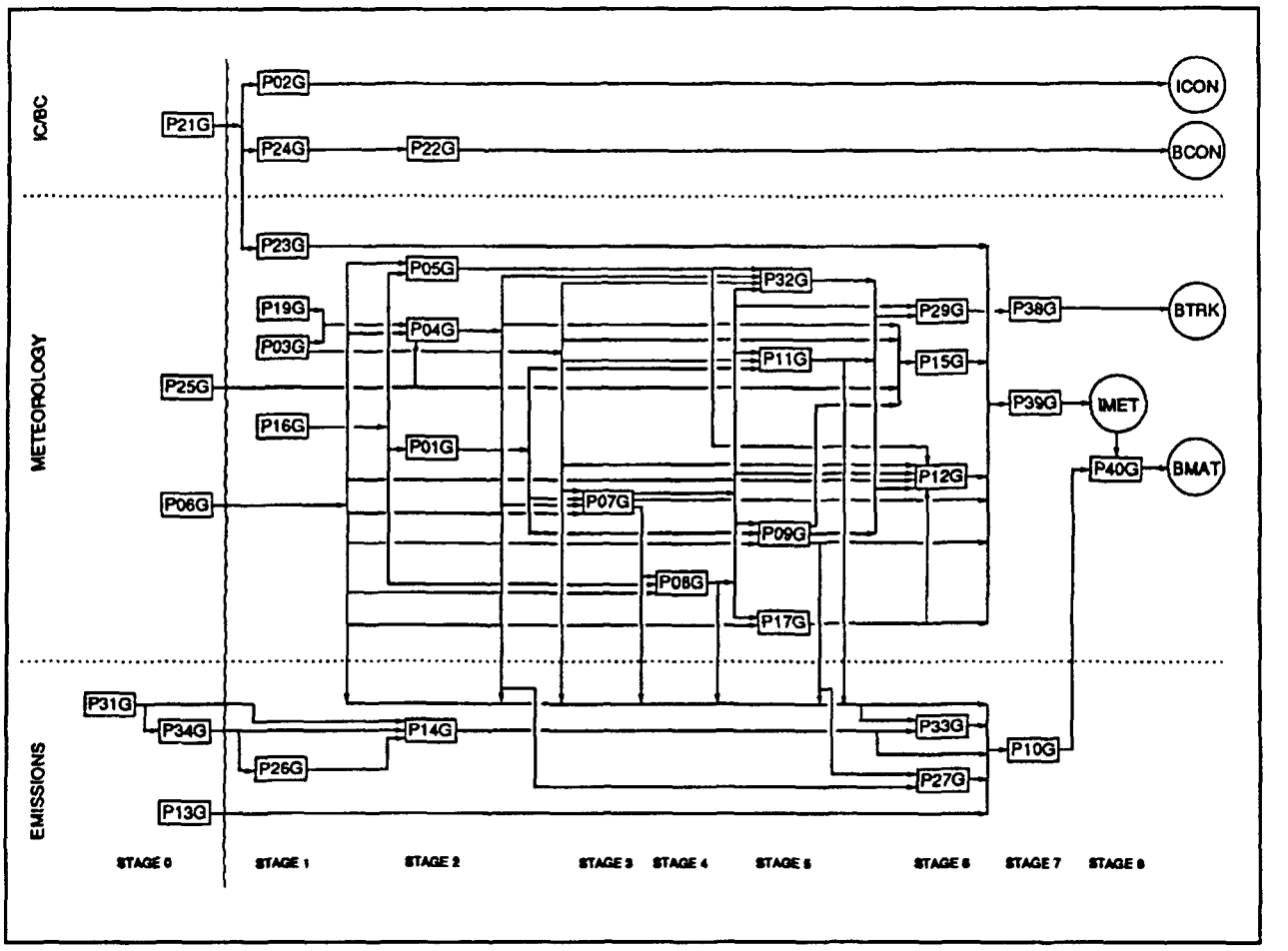

Figure 1. Structure and final output files of the ROM 2.1 Processor Network.

TABLE 4. ROM2.1 PROCESSORS BY FUNCTIONAL CATEGORY

Stage	Processor	Processor description
		INITIAL AND BOUNDARY CONDITION PROCESSORS
0	P21G	Computes daytime and nighttime tropospheric background (clean-air) concentrations in each layer for each chemical species.
1	P02G	Writes to the file ICON the gridded initial-condition concentrations for each layer and species simulated by the Core Model, using P21G's clean-air concentrations as initial-condition concentrations.
1	P23G	Computes hourly gridded upper-boundary-condition concentrations (C-infinity) for a set of representative species.
1	P24G	Equilibrates background concentrations of all modeled chemical species with averaged observed ozone concentrations on the north, south, east, and west boundaries, for both daytime and nighttime conditions in each layer.
2	P22G	Computes and writes to the file BCON the gridded boundary-condition concentrations for each species, layer, and advection time step simulated by the Core Model, for the north, south, east, and west boundaries.
		LAND USE PROCESSOR
0	P25G	Computes the fraction of each grid cell in each land use category recognized by the model.
		TERRAIN PROCESSOR
0	P06G	Computes the smoothed terrain elevation for each 10′ latitude by 15′ longitude ROM domain grid cell, and also for a larger domain that extends three grid cells beyond the ROM domain. In addition, it computes average terrain elevations in a finer-resolution domain (cells 5′ latitude by 5′ longitude) for the terrain penetration calculation. Finally, it computes the north-south and east-west components of the terrain elevation gradient (slope).
		METEOROLOGICAL PROCESSORS
1	P03G	Prepares surface meteorology data (e.g., mixing ratio, virtual temperature, and wind speed) for use in higher-stage processors.
1	P16G	Interpolates between rawinsonde observations to produce hourly upper-air profiles at 25-mb resolution.
1	P19G	Computes hourly gridded values of fractional sky coverage at the terrain surface for all cloud types combined.

(continued)

TABLE 4 (CONTINUED)

Stage	Processor	Processor description
		METEOROLOGICAL PROCESSORS (continued)
2	P01G	Interpolates profiles of upper-air meteorological parameters at intervals of 50 m from hourly rawinsonde vertical profiles.
2	P04G	Computes gridded surface roughness, and hourly gridded Monin-Obukhov length, surface heat flux, friction velocity, surface temperature, surface relative humidity, and surface wind speed.
2	P05G	Uses surface observations to compute hourly gridded values for the fraction of sky covered by cumulus clouds, and also calculates cumulus cloud-top heights.
3	P07G	Computes hourly gridded wind fields in the cold layer, hourly gridded terrain penetration fractions, hourly gridded cold layer growth rates, and hourly gridded thicknesses for layers 0 and 1.
4	P08G	Computes hourly gridded cell thicknesses for layers 2 and 3, and various parameters used to specify volume fluxes between these two layers.
5	P09G	Computes hourly gridded atmospheric density, temperature, cloud cover, solar zenith angle, and water vapor concentration.
5	P11G	Computes hourly gridded horizontal winds for each layer, using rawinsonde vertical profiles and surface-station wind observations.
5	P17G	Computes hourly gridded elevations (above MSL) for the tops of layers 0, 1, 2, and 3, and local time derivatives of these elevations.
5	P32G	Calculates hourly gridded horizontal eddy diffusivities for layers 1, 2, and 3, and also produces parameter fields needed to compute interfacial volume fluxes across layer boundaries.
6	P12G	Computes hourly gridded volume fluxes through all model layer boundaries, and cumulus cloud vertical flux parameters.
6	P15G	Computes hourly gridded effective deposition velocities for a set of representative species.
6	P29G	Computes hourly gridded 30-min backtrack (advection) cell locations and horizontal diffusivities for each layer simulated by the Core Model.
7	P38G	Reads the backtrack and diffusivity hourly gridded MF files and computes the BTRK file parameters for each advection time step simulated by the Core Model.
7	P39G	Reads all meteorology hourly gridded MF files *except* the backtrack and diffusivity files read by P38G and computes the intermediate meteorology (IMET) file parameters for each advection time step simulated by the Core Model.

(continued)

TABLE 4 (CONCLUDED)

Stage	Processor	Processor description
		METEOROLOGICAL PROCESSORS (concluded)
8	P40G	Reads the intermediate meteorology (IMET) file and the emissions sources hourly gridded MF files and computes the BMAT parameters for each advection time step simulated by the Core Model.
		EMISSIONS PROCESSORS
0	P13G	Computes the total length of highway line-emissions sources within each grid cell.
0	P31G	Allocates annual point-source emissions data between a weekday-emissions file, a Saturday-emissions file, and a Sunday-emissions file.
0	P34G	Converts all point-, area-, and mobile-source data files from GMT to LST.
1	P26G	Computes hourly gridded mobile-source VOC, NO_x, and CO emissions parameters, adjusted for daily average temperature.
2	P14G	Prepares files containing hourly emissions values and stack descriptions for all major point sources, and combined hourly gridded emissions values for minor point sources, area sources, and mobile sources.
6	P27G	Prepares hourly gridded biogenic emission rates for isoprene, paraffin, olefin, high molecular weight aldehydes (RCHO, R > H), nonreactive hydrocarbons, NO, and NO_2.
6	P33G	Generates hourly gridded locations and strengths of constant-source emitters for a tracer emissions species.
7	P10G	Computes hourly gridded emissions source functions in layers 0, 1, and 2 for combined anthropogenic and biogenic sources, and also computes the plume volume fraction in layer 0.

5.1 RUNNING THE ROM PROCESSOR NETWORK ON A VAX COMPUTER

The ROM Processor Network is organized into nine stages, each one of which must run to completion prior to another stage beginning. Table 5 lists the processors contained within each stage. Note that stage 0 is time-independent, i.e., Processors P06G, P13G, and P25G need to be run only the first time you execute the model for your modeling domain.

TABLE 5. ROM PROCESSORS LISTED BY STAGE

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8
P06G*	P02G	P01G	P07G	P08G	P09G	P12G	P10G	P40G
P13G*	P03G	P04G			P11G	P15G	P38G	
P21G	P16G	P05G			P17G	P27G	P39G	
P25G*	P19G	P14G			P32G	P29G		
P31G	P23G	P22G				P33G		
P34G	P24G							
	P26G							

* Stage 0 is time-independent; Processors P06G, P13G, and P25G need to be run only the first time you execute your modeling domain.

After successful completion of Stage 8, four files will have been created: ICON, BCON, BTRK, and BMAT; these files are written by processors P02G, P22G, P38G, and P40G, respectively. These four files are inputs to the Core Model (See Section 6.2). They can be written in VAX or IBM binary, depending on where the model is to be run.

Our procedure transfers the Core Model input data sets from the VAX to the IBM using the DECnet/SNA Data Transfer Facility (DTF). For further information on transferring data, we refer you to the DECnet/SNA VMS Data Transfer Facility User's Guide.[9]

To write the four files to the IBM, you must:

- Specify that the data be written in IBM binary format; to do this, set the VAXFMT logical parameter to .FALSE. in the processor's .CPR (control cards) file.
- Assign the output destination (in the processor's run stream) to an IBM data set. See the run streams in [FOREMAN.FV1872X]).

9. Order number AA-JM75B-TE; Digital Equipment Corporation, P.O. Box CS2008, Nashua, NH 03061.

If you do not have the capability to use the DTF, you must write the files to the VAX disk (keep the flag at .FALSE.), and use the VAX COPY command to copy to tape, which you must then carry over to the IBM. However, data written first to the VAX disk will not have the physical dimensions expected by the code resident on the IBM. You will have to rewrite the data to the specifications in Section 6.2. Finally, you can run the model on a VAX computer (see Section 7), but we caution against it because of the much longer run times.

For the benchmark run of the ROM, you will write the four input files for the Core Model (i.e., ICON, BCON, BTRK, and BMAT) to a VAX disk.

5.2 A "COOKBOOK" GUIDE TO CREATING THE CORE MODEL'S INPUT FILES

If you have created your directories with our naming system (Section 2.2), then you will be able to run the Processor Network (and the three preprocessors--TEMPROC, MASK, and PFMFCOPY) in a straightforward manner. You will only need to change the disk pack name in the .COM files (from MET15 or MET52 to your pack's name). However, if you intend to execute the Core Model on a VAX computer, you will need to edit the control cards files (the .CPR files) for Processors P02G, P22G, P38G, and P40G, changing the output logical parameter from .FALSE. to .TRUE..

Before you execute the model, you must have already initialized the PF/MF files (see Section 4, Step 8).

We recommend that you submit the .COM files to your batch job queue. For each submission, you will want to create a log file that is sent to the appropriate formulation directory. You can compare your log files with our logs included on the distribution tapes, to ensure that your execution of each processor is identical to ours.

- Run the time-independent Processors from [FOREMAN.FV1050X]:
  - Submit P06GX1.COM, P13GX1.COM, and P25GX1.COM.
    Wait for completion of the Processors.

- Start the emissions formulation from [FOREMAN.FV1873X]:[10]
  - Submit TEMPROC.COM; this preprocessor creates PF192.
    Wait for completion of the preprocessor.
  - Submit P26GX1.COM.
    Wait for completion of the Processor.
  - Submit P14GX1.COM.

10. Note: for running the benchmark data, we have provided the output data files for P21G, P24G, P31G, and P34G.

Wait for completion of the Processor.

- Submit MASK.COM; this preprocessor creates PF195.
  Wait for completion of the preprocessor.

- Start the meteorology formulation from [FOREMAN.FV1871X]:
  - Submit P03GX1.COM, P16GX1.COM, P19GX1.COM, and P23GX1.COM.
    Wait for completion of these Stage 1 Processors.
  - Submit P01GX1.COM, P04GX1.COM, and P05GX1.COM.
    Wait for completion of these Stage 2 Processors.
  - Submit P07GX1.COM.
    Wait for completion of this Stage 3 Processor.
  - Submit P08GX1.COM.
    Wait for completion of this Stage 4 Processor.
  - Submit P09GX1.COM, P11GX1.COM, P17GX1.COM, and P32GX1.COM.
    Wait for completion of these Stage 5 Processors.

- Continue the emissions formulation from [FOREMAN.FV1873X]:
  - Submit P27GX1.COM and P33GX1.COM.
    Wait for completion of these Stage 6 Processors.
  - Submit P10GX1.COM.
    Wait for completion of this Stage 7 Processor.

- Complete the meteorology formulation from [FOREMAN.FV1871X]:
  - Submit PFMFCOPY.COM.
    Wait for completion of this preprocessor.
  - Submit P12GX1.COM, P15GX1.COM, and P29GX1.COM.
    Wait for completion of these Stage 6 Processors.

- Complete the emissions formulation from [FOREMAN.FV1873X]:[11]
  - Submit P38GX1.COM or P38GX2.COM [12], and also P39GX1.COM.
    Wait for completion of these Stage 7 Processors.
  - Submit P40GX1.COM or P40GX2.COM.
    Wait for completion of this Stage 8 Processor.

---

11. Note: even though they are called meteorology processors in Figure 1 and Table 4, we run P38G, P39G, and P40G in the emissions formulation; the meteorology formulation will not be included in a rerun with different emissions files.

12. PxxGX1.COM writes the output files to the VAX, and PxxGX2.COM translates output files for the IBM. If you use PxxGX2.COM files, you may change the output data set top-level names.

- Start the initial conditions/boundary conditions formulation from [FOREMAN.FV1872X]:
  - Submit P02GX1.COM or P02GX2.COM.
    Wait for completion of this Stage 1 Processor.
  - Submit P22GX1.COM or P22GX2.COM.
    Wait for completion of this Stage 2 Processor.

At the completion of these steps, you will have the four files used as input by the Core Model--ICON, BCON, BTRK, and BMAT. If you must run the ROM on a VAX, the files will be written to [ROM-NET1.CORE]. This directory also contains the intermediate meteorology file IMET, which is output by Processor P39G; this file is not required by the Core Model.

Before you continue with running the Core Model, we advise you to check your PF/MF output data against our benchmark output using the quality assurance procedures listed in Section 7.1.

SECTION 6

RUNNING THE CORE MODEL ON AN IBM MAINFRAME

This section describes how to run the ROM Core Model on an IBM 3090, and includes necessary time and cost factors. In Section 6.1, we explain our formulation-naming and file-naming conventions (common to both the IBM and VAX computers). In Section 6.2, we describe the file allocations needed to run the Core Model on an IBM computer for the first time. In Section 6.3, we include sample run streams for a beginning three-day scenario and a subsequent scenario. These two samples help to clarify the file-naming conventions. In Section 6.4, we provide an IBM output log for the first run stream in Section 6.3.

The following data sets contain the Core Model FORTRAN code and JCL for a uniprocessor IBM run and contain associated files. These files reside on the tape with tape ID "CODE" (see Appendix B).

- YOJNER1.FORT.UNIROM(ROM) contains source code.
- YOJNER1.INCLUDES.UNIROM also contains source code.
- YOJNER1.JCL.CNTL(@CLUNIR1) is the compile/link JCL.
- YOJNER1.LOADLIB.BTL is a subroutine library[13].
- YOJNER1.LIST.ROM21U(UNIROM) contains the compile step listing file.
- YOJNER1.LOADLIB.UNIROM(ROM21U) is the load module[14].
- YOJNER1.JCL.CNTL(RUNUNIR) is the run stream JCL[15].
- YOJNER1.ROM.MODEL.DATA(PR1873X) is the PROG data set.
- YOJNER1.ROM.MODEL.DATA(ST1873X) is the STOPCK data set.
- YOJNER1.LOADLIB.CNUTIL(CNTRAN) contains the load module for the IBM binary to VAX binary translation of the CONC file. You will need to submit this program after submitting the Core Model run. You must transfer the output translated CONC file to a VAX computer in order to run the quality assurance programs.
- YOJNER1.JCL.CNTL(CNTRAN) contains the run stream for CNTRAN.
- YOJNER1.LOGS.UNIROM(FV1873X) contains the log from our benchmark run of the ROM on the IBM.
- YOJNER1.LOGS.UNIROM(TFV1873X) contains the log from a translation of the CONC file from our benchmark run.

13. This subroutine library contains the module SECOND that is used to extract the current time from the operating system.
14. We suggest that you create your own load module.
15. Section 6.3 documents sample IBM run streams.

- YOJNER1.LOGS.UNIROM(T3V1873X) contains the log from a translation of the CONC file from our benchmark run into three parts to put on three distribution tapes (B20017, B20033, and B20005). Thus, on the VAX, you can compare your results with the benchmark run.

6.1 FORMULATION-NAMING AND FILE-NAMING CONVENTIONS

In this subsection, we describe our formulation-naming and file-naming conventions. This discussion will assist you in understanding the sequencing of files in the sample run streams (Section 6.3). Files are given names that are based on the B-matrix file name (BMAT), which is in turn named by the emissions formulation, as shown below.

FV1*nnmA* where:

F	Formulation
V	Verified
1	ROM Version 2.1 model run
nn	Sequential scenario number
m	Formulation number:
	0= Time-independent formulation, run only once per modeling domain
	1= Time-dependent Core Model formulation
	2= Initial and boundary conditions (IC/BC) formulation
	3= Emissions base case
	4...9= Emission control strategies 1 through 6
A	The version letter-designation (i.e., A, B, C, D, ...) that we use to track different runs of the same data type. For example, a rerun of the same control strategy, region, and time period would be designated "B".

For each subsequent scenario, increment *nn* by one. For example:

FV1870A	Time independent, domain-dependent formulation.
FV1871A	Core Model formulation for Scenario 1.
FV1872A	IC/BC formulation for Scenario 1.
FV1873A	Emissions base case formulation for Scenario 1.
FV1874A	Control strategy 1 for Scenario 1.
FV1875A	Control strategy 2 for Scenario 1.

Then,

FV1881A	Core Model formulation for Scenario 2.
FV1882A	IC/BC formulation for Scenario 2.

etc.

Note: The Core Model does not require *nn*0 or *nn*1 formulations. A typical model run uses a BTRK file from a base case (*nn*3), a BMAT file from a base case or control strategy (*nn*4...*nn*9), and IC and BC files (*nn*2).

6.2 FILE ALLOCATIONS FOR A FIRST-TIME RUN OF THE CORE MODEL ON AN IBM

We make all file allocations on a single-density pack for an IBM 3380 disk drive. The space utilization for these packs is 47476 bytes per track (i.e., 22 tracks/megabyte), and 15 tracks per cylinder (i.e., 1.5 cylinders/megabyte). You will need to allocate these data sets *before* you run Processors P02G, P22G, P38G, and P40G if you write the output files directly to the IBM.

The Core Model requires eight files (seven data sets) to be provided as input and one file (one data set) as output. Input files ICON, BCON, BTRK, and BMAT are produced by processors P02G, P22G, P38G, and P40G, respectively. The four remaining input files are NEWICON (ending conditions from a model run, used as initial conditions for the next three-day scenario), PROG (the progress file that enables you to monitor the model execution), STOPCK (the stop check file that lets you shut down the model during execution), and RESTRT (the file that allows you to restart the model run). CONC is a file of predicted concentrations that result from execution of the Core Model. The initial space requirements for the data sets are shown below in Table 6. All of the initial data set allocations were made to include one ROM scenario (72 hours in length).

TABLE 6. INITIAL SPACE REQUIREMENTS OF EIGHT ROM DATA SETS

Data set	Description and initial space requirements*		
ICON	File organization	PS	
(source: P02G on the VAX)	Record format	V	
	Record length	772 bytes	
	Block size†	776 bytes	
	First extent tracks	10 tracks	(50 tracks used)
	Secondary tracks	6 tracks	(8 extents used)
BCON	File organization	PS	
(source: P22G on the VAX)	Record format	V	
	Record length	772 bytes	
	Block size†	776 bytes	
	First extent tracks	600 tracks	(549 tracks used)
	Secondary tracks	10 tracks	(1 extent used)
BTRK	File organization	PS	
(source: P38G on the VAX)	Record format	V	
	Record length	13828 bytes	
	Block size†	13828 bytes	
	First extent tracks	600 tracks	(577 tracks used)
	Secondary tracks	10 tracks	(1 extent used)
BMAT	File organization	PS	
(source: P40G on the VAX)	Record format	V	
	Record length	13828 bytes	
	Block size†	13828 bytes	
	First extent tracks	2551 tracks	(11232 tracks used)
	Secondary tracks	200 tracks	(15 extents used)
NEWICON	File organization	PO	
(source: none)	Record format	V	
[created by each run]	Record length	772 bytes	
	Block size†	776 bytes	
	First extent cylinders	e.g., 7	(allocations are deliberately
	Secondary cylinders	e.g., 4	large to permit additions)

(continued)

TABLE 6 (CONCLUDED)

Data set	Description and initial space requirements*		
ROM.MODEL.DATA	File organization	PO	
File = PROG	Record format	FB	
File = STOPCK	Record length	80 bytes	
(user-created files)	Block size†	1600 bytes	
	First extent tracks	2 tracks	
	Secondary tracks	5 tracks	
RESTRT	File organization	PO	
(source: none)	Record format	FBA	
[created by each run]	Record length	132 bytes	
	Block size†	132 bytes	
	First extent tracks	6 tracks	
	Secondary tracks	6 tracks	
CONC	File organization	PS	
(source: none)	Record format	FB	
[created by each run]	Record length	768 bytes	
	Block size†	7680 bytes	
	First extent tracks	5000 tracks	(5281 tracks used)
	Secondary tracks	30 tracks	(11 extents used)

* Abbreviations are defined below:

PS = Physical Sequential

PO = Partitioned Organization

FB = Fixed length records, Blocked

FBA = Fixed length records, Blocked, with carriage control characters

V = Variable length records.

† Other block sizes may be used to optimize space requirements.

6.3 SAMPLE IBM RUN STREAMS

Figure 2 and Figure 3 present sample IBM run streams for: (1) a single three-day scenario, FV1873A; and (2) the subsequent scenario, FV1883A, respectively. The run streams are written in IBM's JCL.[16]

The first run stream (Figure 2) demonstrates the requirements for a single scenario; the run stream could be the first scenario of a multiscenario episode. The notes to the right of the run stream (preceded by a ←) are not part of the run stream, but refer to the line to their immediate left. *These notes, and their associated footnotes, are vital to your understanding of how to run the model.* File names that are enclosed in parentheses [e.g., (PR1873A)] are members of a partitioned data set. Note that the RENAME and NEWIC copy steps are not required for a first-time model run of a multiscenario episode, but PROG and STOPCK files do need to exist (see Section 6.3.1).

Note that the files created by the first scenario run (i.e., NEWICON and CONC) are labeled FV1873A, and that all the other input files come from processor executions on the VAX. From the output log created by this run (Section 6.4) for a ROMNET domain scenario, you will see that a typical model execution requires 10 to 11 CPU hours on an IBM 3090-600E using a single processor.

For subsequent model runs of contiguous scenarios (i.e., for an episode that lasts longer than 72 hours), the ICON data set in the first run stream is substituted with the NEWICON data set, and the NEWICON name is incremented by one. Figure 4 shows the relationship between scenarios and an episode. The next scenario (FV1883A) would use the run stream shown in Figure 3.

16. If you require help with JCL, we suggest that you refer to *System/370 Job Control Language* by Gary DeWard Brown, published by Wiley-Interscience, John Wiley and Sons, New York, NY. (The second edition, published in 1987, is the current edition.).

```
//UICR503 JOB (NER1RSMRP,B012,,,,,,,58;  JSERNM ',MSGCLASS=P,        ← Start run FV1873A
//    NOTIFY=UIC,TIME=(900),REGION=5000K,PRTY=1
/*AFTER UICMMBM
/*JOBPARM LINES=999
/*ROUTE PRINT RMT378
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                    *
//*   RENAMES                                                          *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//RENAMES EXEC TSOBATCH                                                ← Space-saving rename of old CONC file
RENAME 'ADRNER1.NOBKUP.CONC1.FV1093A' 'ADRNER1.NOBKUP.CONC7.FV1873A' ← CAUTION!!
//*                                                                      the old CONC file is overwritten
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                    *
//*   IEBGENER COPIES                                                  *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//NEWIC    EXEC PGM=IEBGENER                                           ← Copy an existing NEWICON file to disk[17]
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=ADRNER1.ROM.RNETIC(FV1613A),DISP=SHR
//SYSUT2 DD DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
//SYSIN DD DUMMY
//*
//NEWPR    EXEC PGM=IEBGENER                                           ← Copy an old PROG file[18]
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(PR0073F),DISP=SHR
//SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(PR1873A),DISP=SHR
//SYSIN DD DUMMY
//*
//NEWST    EXEC PGM=IEBGENER                                           ← Copy an old STOPCK file[19]
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(ST0073F),DISP=SHR
//SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(ST1873A),DISP=SHR
//SYSIN DD DUMMY
//*
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                    *
```

. . .
. . .
. . .

Figure 2. Sample IBM run stream for a single three-day scenario (FV1873A)--Part 1 of 2

17. Partitioned data sets tend to grow larger, at times exceeding their disk space allocation. If this occurs, the run will die when the model attempts to write new data. The copying (and subsequent renaming from FV1613A to FV1873A) ensures that a definite space exists for the run FV1873A to be written (refer to Section 6.3.1).

18. A PROG file must pre-exist (refer to Section 6.3.1).

19. A STOPCK file must pre-exist (refer to Section 6.3.1).

```
//*   EXECUTE ROM                                          *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//EXECUTE  EXEC PGM=ROM21R
//STEPLIB  DD   DSN=UICNER1.ROMNET.LOADLIB,DISP=SHR                ← Assigns the load library files
//         DD   DSN=SYS1.VSF2FORT,DISP=SHR
//CONC     DD   DSN=ADRNER1.NOBKUP.CONC7.FV1873A,                  ← Assigns the Core Model's nine files
//     DISP=(OLD,KEEP,KEEP)
//RESTRT   DD   DSN=ADRNER1.RESTART(FV1873A),
//         UNIT=SYSDA,DISP=SHR
//PROG     DD   DSN=BTLNER1.ROM.MODEL.DATA(PR1873A),DISP=SHR
//STOPCK   DD   DSN=BTLNER1.ROM.MODEL.DATA(ST1873A),DISP=SHR
//BCON     DD   DSN=ADRNER1.NOBKUP.BC3.FV1872A,DISP=SHR
//ICON     DD   DSN=UICNER1.IC1.FV1872A,DISP=SHR
//BTRK     DD   DSN=ADRNER1.NOBKUP.BTRK4.FV1873A,DISP=SHR
//NEWICON  DD   DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
//BMAT1    DD   DSN=ADRNER1.NOBKUP.BMAT5.FV1873A,DISP=SHR
//FT06F001 DD SYSOUT=*                                            ← Assigns unit 6 standard output
//FT05F001 DD *                                                   ← Assigns unit 5 standard input
'START_RUN   ' 144 88184 120000                                   ← No. of 30-m time steps (144)[20]
.TRUE.                                                            ← The chemistry calculations will be made[21]
88184 12                                                          ← The scenario start date and start hour[22]
'ROMNET1'                                                         ← The modeling domain
** USERNM  07-10-89 ********************************************  ← Start of CONC file header user-input text
* ROMNET RUN   ROM 2_1 RUN ON IBM 3090
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1872A, NEWIC IS FV1873A
* BMATRIX FROM FORMULATION FV1873A RUN
* CONC FILE FV1873A PRODUCED
*****************************************************************
                                                                  ← Must be a blank line
/*
```

Figure 2. Sample IBM run stream for a single three-day scenario (FV1873A)--Part 2 of 2.

20. 88184 is the start date (as *YYDDD*) and 120000 the start time (as *HHMMSS*) for the run. The run mode (i.e., `'START_RUN    '`) is 12 characters long (between single quotes). Restarts use the run mode `'RESTART_RUN '`.

21. If this flag is set to .FALSE., then the chemistry calculations are not made. For research and test purposes, we sometimes run the model with the chemistry turned off.

22. A three-day run (144 time steps) comprises a single scenario. If the run mode date and time do not match the scenario date and hour, then the run is a restart.

```
//UICR513 JOB (NER1RSMRP,B012,,,,,,,58),'USERNM ',MSGCLASS=P,
//    NOTIFY=UIC,TIME=(900),REGION=5000K,PRTY=1
/*AFTER UICMMBM
/*JOBPARM LINES=999
/*ROUTE PRINT RMT378
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                          *
//*   RENAMES                                                                *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//RENAMES EXEC TSOBATCH
RENAME 'ADRNER1.NOBKUP.CONC1.FV1053A' 'ADRNER1.NOBKUP.CONC7.FV1883A'
//*
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                          *
//*   IEBGENER COPIES                                                        *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//NEWIC    EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
//SYSUT2 DD DSN=ADRNER1.ROM.RNETIC(FV1883A),DISP=SHR
//SYSIN DD DUMMY
//*
//NEWPR    EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(PR1873F),DISP=SHR
//SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(PR1883A),DISP=SHR
//SYSIN DD DUMMY
//*
//NEWST    EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(ST1873F),DISP=SHR
//SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(ST1883A),DISP=SHR
//SYSIN DD DUMMY
//*
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//*                                                                        *
//*   EXECUTE ROM                                                          *
//*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
//EXECUTE  EXEC PGM=ROM21R
//STEPLIB  DD   DSN=UICNER1.ROMNET.LOADLIB,DISP=SHR
//         DD   DSN=SYS1.VSF2FORT,DISP=SHR
//CONC     DD   DSN=ADRNER1.NOBKUP.CONC7.FV1883A,
//     DISP=(OLD,KEEP,KEEP)
//RESTRT   DD   DSN=ADRNER1.RESTART(FV1883A),
//         UNIT=SYSDA,DISP=SHR
//PROG     DD   DSN=BTLNER1.ROM.MODEL.DATA(PR1883A),DISP=SHR
//STOPCK   DD   DSN=BTLNER1.ROM.MODEL.DATA(ST1883A),DISP=SHR
//BCON     DD   DSN=ADRNER1.NOBKUP.BC3.FV1882A,DISP=SHR
//ICON     DD   DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
//BTRK     DD   DSN=ADRNER1.NOBKUP.BTRK4.FV1883A,DISP=SHR
//NEWICON  DD   DSN=ADRNER1.ROM.RNETIC(FV1883A),DISP=SHR
//BMAT1    DD   DSN=ADRNER1.NOBKUP.BMAT5.FV1883A,DISP=SHR
//FT06F001 DD SYSOUT=*
//FT05F001 DD *
'START_RUN   ' 144 88187 120000
.TRUE.
88187 12
'ROMNET1'
** USERNM  07-15-89 ******************************************
* ROMNET RUN   ROM 2_1 RUN ON IBM 3090
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1882A, NEWIC IS FV1883A
* BMATRIX FROM FORMULATION FV1883A RUN
* CONC FILE FV1883A PRODUCED
*****************************************************************
                                                    ← Must be a blank line
/*
```

Figure 3. Sample IBM run stream for a subsequent scenario (FV1883A).

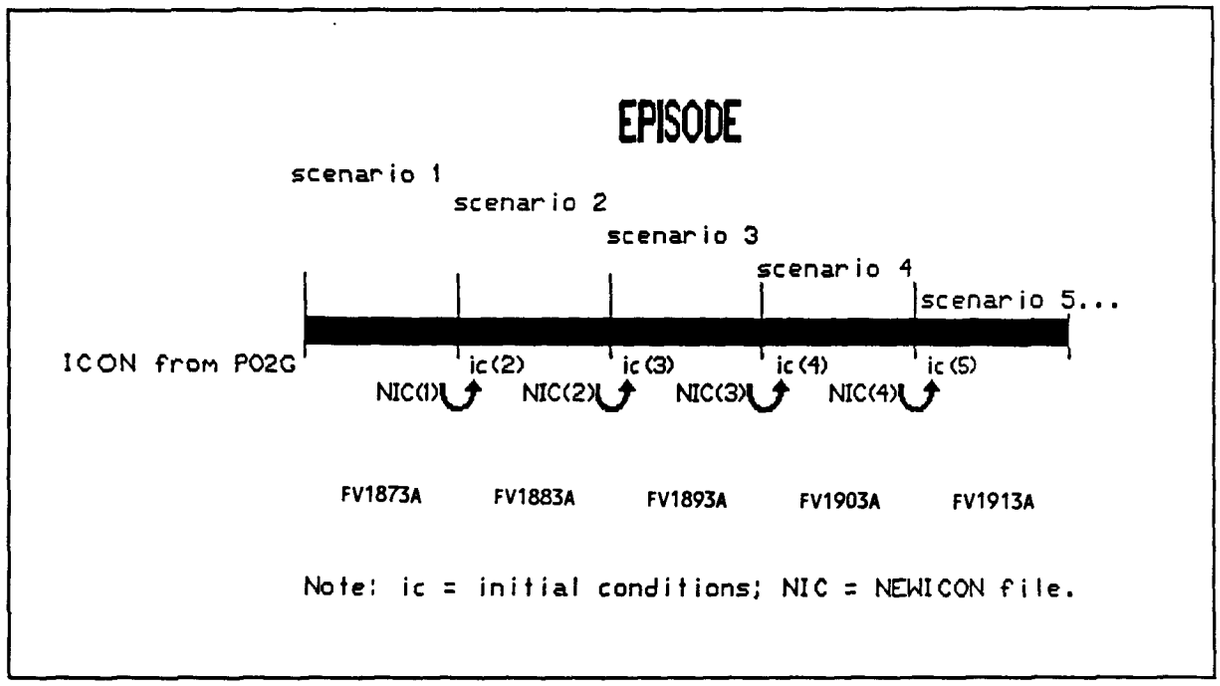

Figure 4. The relationship between scenarios and an episode.

6.3.1 Model Run Preliminary Steps

Two preliminary steps need to be completed before the model will run. The first is to allocate space for the CONC file. The second is to create and/or allocate the three files that the model initially expects to see. These are:

- NEWICON--When a model run ends, it writes the NEWICON file from the final time step of the current scenario's CONC file. Thus, the model expects to see a NEWICON file for every scenario. After the first scenario within an episode, the pointer (DD name in the run streams above) indicates to the model that the initial conditions are to be found in the NEWICON file. For the first scenario of an episode, these data are provided by the initial ICON file, generated by processor P02G on the VAX.
- PROG--This file enables you to check how many time steps the model has completed once the batch job is running. The file consists of only one line with three fields: *YYDDD HHMMSS* Step number (of the most recently completed step).
- STOPCK--This file exists so that you can stop the model cleanly at the currently-executing time step. The file consists of one line. At the end of each time step, the model opens the STOP file and reads it. If the file contains the string (including quotes) **'STOP'**, execution is halted at that time step. Any other string allows the model to continue. This file may be accessed and edited at any time during a model run.

6.3.2 Files Required and Run Starts

You will recall that nine files are required by the ROM, starting with the CONC file in the run streams in Figures 2 and 3, and enumerated in Section 6.2. All of these files are inputs except for NEWICON and CONC, which are model outputs. Recall too that for second or later scenarios, the initial conditions are given in the previous model run's NEWICON file, which consists of the final time step of that run's CONC file.

From ISPF (the Interactive Screen Productivity Facility) on the IBM, ROM is started by editing the run stream file, and typing SUBMIT at the editor's COMMAND---> prompt.

6.4 SAMPLE OUTPUT LOG FOR A CORE MODEL RUN ON AN IBM

The run stream for the ROMNET domain scenario FV1873A produced the sample output log listed on the following pages. Explanatory text, shown in shaded boxes, is interspersed in the log. For example, we have indicated the division between the system log and the program log.

Note that two VAX system disks are referenced in the log: (1) DISK$VAXSET is a disk that contains the source code and executables, the link streams, and the .DFL files;[23] (2) USER2$DISK is the user-interface disk.

Start Job Entry Subsystem (JES) message log

```
              J E S 2  J O B  L O G  --  S Y S T E M  E P A 2  --  N O D E  N C C I B M 1
JOB  618  IEF097I UICR503  - USER UIC      ASSIGNED
19.50.50 JOB  618  ICH70001I UIC      LAST ACCESS AT 19:50:47 ON MONDAY, JULY 10, 1989
19.50.50 JOB  618  $HASP373 UICR503  STARTED - INIT 84 - CLASS G - SYS EPA2
06.47.58 JOB  618  +AFB002I STOP
06.47.59 JOB  618  NCC005I * JOB UICR503  ENDED 07/11/89 AT  6:47:59, PRTY=01, CC=0000
06.47.59 JOB  618  $HASP395 UICR503  ENDED
------ JES2 JOB STATISTICS ------
--    10 JUL 89 JOB EXECUTION DATE
--           64 CARDS READ
--        3,253 SYSOUT PRINT RECORDS
--            0 SYSOUT PUNCH RECORDS
--          147 SYSOUT SPOOL KBYTES
--       657.15 MINUTES EXECUTION TIME
```

Start JES JCL echo

```
  1     //UICR503 JOB (NER1RSMRP,B012,,,,,,,58),'USERNM ',MSGCLASS=P,          JOB  618
        //    NOTIFY=UIC,TIME=(900),REGION=5000K,PRTY=1                        0000000
        ***  NOTIFY=ADR,TIME=(2,0),REGION=5000K,PRTY=4                         0000000
        ***AFTER UICMMBM
        ***JOBPARM LINES=999
        ***ROUTE PRINT RMT378
        ***
        *** RENAMES
  2     //RENAMES EXEC TSOBATCH
  3     XXDEFAULTS PROC PRINT=A                                                00001002
        ****************************************************************       00002002
        ****                                                                   00003002
        ****  EXEC TSO IN BATCH                                                00004002
        ****                                                                   00005002
        ****************************************************************       00006002
  4     XXTSOBATCH EXEC  PGM=IKJEFT01,DYNAMNBR=150                             00007003
  5     XXSYSTSPRT DD  SYSOUT=&PRINT                                           00008002
        IEF653I SUBSTITUTION JCL - SYSOUT=A
  6     XXSYSPRINT DD  SYSOUT=&PRINT                                           00009002
        IEF653I SUBSTITUTION JCL - SYSOUT=A
  7     XXSYSPROC  DD  DSN=SYS2.MOD.CLIST,DISP=SHR                             00009102
  8     XX         DD  DSN=SYS2.EPA.CLIST,DISP=SHR                             00009202
  9     XX         DD  DSN=SYS2.OVN.CLIST,DISP=SHR                             00009302
 10     XX         DD  DSN=SYS1.IBM.CLIST,DISP=SHR                             00009402
 11     XXSYSTSIN  DD  DDNAME=SYSIN                                            00009502
 12     //SYSIN     DD *                GENERATED STATEMENT
        ***-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
        ***                                                                    *
        ***   IEBGENER COPIES                                                  *
        ***-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
 13     //NEWIC    EXEC PGM=IEBGENER
 14     //SYSPRINT DD SYSOUT=*
 15     //SYSUT1 DD DSN=ADRNER1.ROM.RNETIC(FV1613A),DISP=SHR
 16     //SYSUT2 DD DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
 17     //SYSIN DD DUMMY
        ***
 18     //NEWPR    EXEC PGM=IEBGENER
 19     //SYSPRINT DD SYSOUT=*
 20     //SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(PR0073F),DISP=SHR
 21     //SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(PR1873A),DISP=SHR
 22     //SYSIN DD DUMMY
        ***
 23     //NEWST    EXEC PGM=IEBGENER
```

23. .DFL files contain a list of the FORTRAN files that are used in the program.

```
24      //SYSPRINT DD SYSOUT=*
25      //SYSUT1 DD DSN=BTLNER1.ROM.MODEL.DATA(ST0073F),DISP=SHR
26      //SYSUT2 DD DSN=BTLNER1.ROM.MODEL.DATA(ST1873A),DISP=SHR
27      //SYSIN DD DUMMY
        ***
        ***-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
        ***   EXECUTE ROM                                                        *
        ***-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
28      //EXECUTE  EXEC PGM=ROM21R
29      //STEPLIB  DD   DSN=UICNER1.ROMNET.LOADLIB,DISP=SHR
30      //         DD   DSN=SYS1.VSF2FORT,DISP=SHR
31      //CONC     DD   DSN=ADRNER1.NOBKUP.CONC7.FV1873A,
        //     DISP=(OLD,KEEP,KEEP)
32      //RESTRT   DD   DSN=ADRNER1.RESTART(FV1873A),
        //         UNIT=SYSDA,DISP=SHR
33      //PROG     DD   DSN=BTLNER1.ROM.MODEL.DATA(PR1873A),DISP=SHR
34      //STOPCK   DD   DSN=BTLNER1.ROM.MODEL.DATA(ST1873A),DISP=SHR
35      //BCON     DD   DSN=ADRNER1.NOBKUP.BC3.FV1872A,DISP=SHR
36      //ICON     DD   DSN=UICNER1.IC1.FV1872A,DISP=SHR
37      //BTRK     DD   DSN=ADRNER1.NOBKUP.BTRK4.FV1873A,DISP=SHR
38      //NEWICON  DD   DSN=ADRNER1.ROM.RNETIC(FV1873A),DISP=SHR
39      //BMAT1    DD   DSN=ADRNER1.NOBKUP.BMAT5.FV1873A,DISP=SHR
40      //FT06F001 DD SYSOUT=*
41      //FT05F001 DD *
```

Start system message log; IEF = IBM, NCC = National Computer Center (NCC)-specific

```
ICH70001I UIC      LAST ACCESS AT 19:50:47 ON MONDAY, JULY 10, 1989
IEF236I ALLOC. FOR UICR503 TSOBATCH RENAMES
IEF237I JES2 ALLOCATED TO SYSTSPRT
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I 904  ALLOCATED TO SYSPROC
IEF237I 98F  ALLOCATED TO
IEF237I 865  ALLOCATED TO
IEF237I 9B4  ALLOCATED TO
IEF237I 9A2  ALLOCATED TO SYS00072
IEF237I JES2 ALLOCATED TO SYSTSIN
IEF237I 912  ALLOCATED TO SYS00001
IEF285I   SYS1.UADS                                  KEPT
IEF285I   VOL SER NOS= SYS003.
IEF237I 8F7  ALLOCATED TO SYS00003
IEF237I 9E2  ALLOCATED TO SYS00002
IEF285I   ADRNER1.NOBKUP.CONC7.FV1203A               KEPT
IEF285I   VOL SER NOS= ROM005.
IEF142I UICR503 TSOBATCH RENAMES - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB00618.SO000103                     SYSOUT
IEF285I   JES2.JOB00618.SO000104                     SYSOUT
IEF285I   SYS2.MOD.CLIST                             KEPT
IEF285I   VOL SER NOS= PLIB03.
IEF285I   SYS2.EPA.CLIST                             KEPT
IEF285I   VOL SER NOS= PLIB01.
IEF285I   SYS2.OVN.CLIST                             KEPT
IEF285I   VOL SER NOS= PLIB02.
IEF285I   SYS1.IBM.CLIST                             KEPT
IEF285I   VOL SER NOS= PLIB04.
IEF285I   CATALOG.VUCAT01A                           KEPT
IEF285I   VOL SER NOS= UCAT10.
IEF285I   JES2.JOB00618.SI000101                     SYSIN
IEF285I   CATALOG.VUCAT02A                           KEPT
IEF285I   VOL SER NOS= UCAT20.
NCC950I ****************** U.S.EPA  SYSTEM EPA2 - STEP SUMMARY *****************
NCC949I *                                *
NCC950I * JOB UICR503    STEP TSOBATCH                          CC:  0000   *
NCC949I *                                *
NCC950I *  START MONDAY    07/10/89 AT 19:50:50   STOP 07/10/89    19:50:52   *
NCC950I *     0:02.32 ELAPSED    0:00.22 TCB    0:00.01 SRB    0:00.23 TOT CPU *
NCC949I *                                *
NCC949I *                                *
NCC950I *  MEMORY:       OK VIRTUAL ADDRESS SPACE,        9268K               *
NCC950I *  EXCPS:          3 DA,        0 MT,        0 OTHER,        3 TOTAL   *
NCC950I *  EXCPS BY DDNAME(UNIT):SYS00001(912):      3                         *
NCC950I *  PAGES IN:            0 VIO            0 SWAP           0 OTHER      *
NCC950I *  PAGES OUT:           0 VIO            0 SWAP           0 OTHER      *
NCC950I *                 18 PAGE SECONDS                 1.51 RESIDENT SECONDS  *
```

```
NCC949I *                                  *
NCC950I *  CPU  :-     0:00.23  AT $775/HR                                $.02   *
NCC950I *  EXCPS:-           3  AT $.45/1000                              $.00   *
NCC950I *  TOTAL COST FOR STEP TSOBATCH AT PRTY=1   (.5)=                 $.02   *
NCC949I ***********************************************************************
IEF373I STEP /TSOBATCH/ START 89191.1950
IEF374I STEP /TSOBATCH/ STOP  89191.1950 CPU    0MIN 00.22SEC SRB    0MIN 00.01SEC VIRT    56K SYS
        352K EXT       8K SYS    8852K
IEF236I ALLOC. FOR UICR503 NEWIC
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I A8B  ALLOCATED TO SYSUT1
IEF237I 8F7  ALLOCATED TO SYS00074
IEF237I A8B  ALLOCATED TO SYSUT2
IEF237I DMY  ALLOCATED TO SYSIN
IEF142I UICR503 NEWIC - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB00618.S0000105                        SYSOUT
IEF285I   ADRNER1.ROM.RNETIC                            KEPT
IEF285I   VOL SER NOS= USR139.
IEF285I   CATALOG.VUCAT02A                              KEPT
IEF285I   VOL SER NOS= UCAT20.
IEF285I   ADRNER1.ROM.RNETIC                            KEPT
IEF285I   VOL SER NOS= USR139.
NCC950I ****************** U.S.EPA  SYSTEM EPA2 - STEP SUMMARY *****************
NCC949I *                                  *
NCC950I * JOB UICR503    STEP NEWIC                                  CC:  0000   *
NCC949I *                                  *
NCC950I *  START MONDAY    07/10/89 AT 19:50:52   STOP 07/10/89    19:51:14    *
NCC950I *     0:21.50 ELAPSED    0:00.20 TCB    0:00.36 SRB    0:00.56 TOT CPU *
NCC949I *                                  *
NCC949I *                                  *
NCC950I *  MEMORY:      0K VIRTUAL ADDRESS SPACE,        9160K                 *
NCC950I *  EXCPS:      3669 DA,        0 MT,        0 OTHER,      3669 TOTAL   *
NCC950I *  EXCPS BY DDNAME(UNIT):  SYSUT1(A8B):   1834   SYSUT2(A8B):   1835   *
NCC950I *  PAGES IN:            0 VIO            0 SWAP           0 OTHER      *
NCC950I *  PAGES OUT:           0 VIO            0 SWAP           0 OTHER      *
NCC950I *                 13 PAGE SECONDS                20.10 RESIDENT SECONDS *
NCC949I *                                  *
NCC950I *  CPU  :-     0:00.56  AT $775/HR                                $.06   *
NCC950I *  EXCPS:-       3669  AT $.45/1000                               $.83   *
NCC950I *  TOTAL COST FOR STEP NEWIC    AT PRTY=1   (.5)=                 $.89   *
NCC949I ***********************************************************************
IEF373I STEP /NEWIC   / START 89191.1950
IEF374I STEP /NEWIC   / STOP  89191.1951 CPU    0MIN 00.20SEC SRB    0MIN 00.36SEC VIRT    56K SYS
        268K EXT       4K SYS    8832K
IEF236I ALLOC. FOR UICR503 NEWPR
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I A6B  ALLOCATED TO SYSUT1
IEF237I 8F7  ALLOCATED TO SYS00076
IEF237I A6B  ALLOCATED TO SYSUT2
IEF237I DMY  ALLOCATED TO SYSIN
IEF142I UICR503 NEWPR - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB00618.S0000106                        SYSOUT
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
IEF285I   VOL SER NOS= USR088.
IEF285I   CATALOG.VUCAT02A                              KEPT
IEF285I   VOL SER NOS= UCAT20.
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
IEF285I   VOL SER NOS= USR088.
NCC950I ****************** U.S.EPA  SYSTEM EPA2 - STEP SUMMARY *****************
NCC949I *                                  *
NCC950I * JOB UICR503    STEP NEWPR                                  CC:  0000   *
NCC949I *                                  *
NCC950I *  START MONDAY    07/10/89 AT 19:51:14   STOP 07/10/89    19:51:15    *
NCC950I *     0:00.85 ELAPSED    0:00.06 TCB    0:00.00 SRB    0:00.06 TOT CPU *
NCC949I *                                  *
NCC949I *                                  *
NCC950I *  MEMORY:      0K VIRTUAL ADDRESS SPACE,        9180K                 *
NCC950I *  EXCPS:         7 DA,        0 MT,        0 OTHER,         7 TOTAL   *
NCC950I *  EXCPS BY DDNAME(UNIT):  SYSUT1(A6B):      3   SYSUT2(A6B):      4   *
NCC950I *  PAGES IN:            0 VIO            0 SWAP           0 OTHER      *
NCC950I *  PAGES OUT:           0 VIO            0 SWAP           0 OTHER      *
NCC950I *                  4 PAGE SECONDS                 0.53 RESIDENT SECONDS *
NCC949I *                                  *
```

```
NCC950I *  CPU  :-    0:00.06  AT $775/HR                              $.01   *
NCC950I *  EXCPS:-          7  AT $.45/1000                            $.00   *
NCC950I *  TOTAL COST FOR STEP NEWPR    AT PRTY=1   (.5)=              $.01   *
NCC949I ************************************************************************
IEF373I STEP /NEWPR   / START 89191.1951
IEF374I STEP /NEWPR   / STOP  89191.1951 CPU    0MIN 00.06SEC SRB    0MIN 00.00SEC VIRT    68K SYS
        276K EXT       4K SYS    8832K
IEF236I ALLOC. FOR UICR503 NEWST
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I A6B  ALLOCATED TO SYSUT1
IEF237I 8F7  ALLOCATED TO SYS00078
IEF237I A6B  ALLOCATED TO SYSUT2
IEF237I DMY  ALLOCATED TO SYSIN
IEF142I UICR503 NEWST - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB00618.S0000107                        SYSOUT
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
IEF285I   VOL SER NOS= USR088.
IEF285I   CATALOG.VUCAT02A                              KEPT
IEF285I   VOL SER NOS= UCAT20.
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
IEF285I   VOL SER NOS= USR088.
NCC950I ****************** U.S.EPA  SYSTEM EPA2 - STEP SUMMARY *****************
NCC949I *                                *
NCC950I * JOB UICR503    STEP NEWST                                CC:  0000   *
NCC949I *                                *
NCC950I *  START MONDAY    07/10/89 AT 19:51:15   STOP 07/10/89    19:51:16    *
NCC950I *     0:00.83 ELAPSED    0:00.05 TCB    0:00.00 SRB    0:00.05 TOT CPU *
NCC949I *                                *
NCC949I *                                *
NCC950I *  MEMORY:      0K VIRTUAL ADDRESS SPACE,        9180K                *
NCC950I *  EXCPS:         7 DA,        0 MT,        0 OTHER,         7 TOTAL   *
NCC950I *  EXCPS BY DDNAME(UNIT):  SYSUT1(A6B):      3   SYSUT2(A6B):      4   *
NCC950I *  PAGES IN:            0 VIO            0 SWAP           0 OTHER      *
NCC950I *  PAGES OUT:           0 VIO            0 SWAP           0 OTHER      *
NCC950I *                 3 PAGE SECONDS                0.53 RESIDENT SECONDS  *
NCC949I *                                *
NCC950I *  CPU  :-    0:00.05  AT $775/HR                              $.01   *
NCC950I *  EXCPS:-          7  AT $.45/1000                            $.00   *
NCC950I *  TOTAL COST FOR STEP NEWST    AT PRTY=1   (.5)=              $.01   *
NCC949I ************************************************************************
IEF373I STEP /NEWST   / START 89191.1951
IEF374I STEP /NEWST   / STOP  89191.1951 CPU    0MIN 00.05SEC SRB    0MIN 00.00SEC VIRT    68K SYS
276K EXT       4K SYS    8832K
IEF236I ALLOC. FOR UICR503 EXECUTE
IEF237I A9E  ALLOCATED TO STEPLIB
IEF237I 904  ALLOCATED TO
IEF237I 91A  ALLOCATED TO SYS00080
IEF237I 9E2  ALLOCATED TO CONC
IEF237I 8F7  ALLOCATED TO SYS00082
IEF237I A97  ALLOCATED TO RESTRT
IEF237I A6B  ALLOCATED TO PROG
IEF237I A6B  ALLOCATED TO STOPCK
IEF237I 9A6  ALLOCATED TO BCON
IEF237I 9A6  ALLOCATED TO ICON
IEF237I 918  ALLOCATED TO BTRK
IEF237I A8B  ALLOCATED TO NEWICON
IEF237I 9E2  ALLOCATED TO BMAT1
IEF237I JES2 ALLOCATED TO FT06F001
IEF237I JES2 ALLOCATED TO FT05F001
IEF142I UICR503 EXECUTE - STEP WAS EXECUTED - COND CODE 0000
IEF285I   UICNER1.ROMNET.LOADLIB                        KEPT
IEF285I   VOL SER NOS= USR079.
IEF285I   SYS1.VSF2FORT                                 KEPT
IEF285I   VOL SER NOS= PLIB03.
IEF285I   CATALOG.VUCAT04A                              KEPT
IEF285I   VOL SER NOS= UCAT40.
IEF285I   ADRNER1.NOBKUP.CONC7.FV1873A                  KEPT
IEF285I   VOL SER NOS= ROM005.
IEF285I   CATALOG.VUCAT02A                              KEPT
IEF285I   VOL SER NOS= UCAT20.
IEF285I   ADRNER1.RESTART                               KEPT
IEF285I   VOL SER NOS= USR093.
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
```

```
IEF285I   VOL SER NOS= USR088.
IEF285I   BTLNER1.ROM.MODEL.DATA                        KEPT
IEF285I   VOL SER NOS= USR088.
IEF285I   ADRNER1.NOBKUP.BC3.FV1872A                    KEPT
IEF285I   VOL SER NOS= ROM002.
IEF285I   UICNER1.IC1.FV1872A                           KEPT
IEF285I   VOL SER NOS= ROM002.
IEF285I   ADRNER1.NOBKUP.BTRK4.FV1873A                  KEPT
IEF285I   VOL SER NOS= ROM001.
IEF285I   ADRNER1.ROM.RNETIC                            KEPT
IEF285I   VOL SER NOS= USR139.
IEF285I   ADRNER1.NOBKUP.BMAT5.FV1873A                  KEPT
IEF285I   VOL SER NOS= ROM005.
IEF285I   JES2.JOB00618.S0000108                        SYSOUT
IEF285I   JES2.JOB00618.S1000102                        SYSIN
NCC950I ****************** U.S.EPA  SYSTEM EPA2 - STEP SUMMARY *****************
NCC949I *                                *
NCC950I * JOB UICR503    STEP EXECUTE                              CC:  0000   *
NCC949I *                                *
NCC950I *  START MONDAY    07/10/89 AT 19:51:16   STOP 07/11/89     6:47:59    *
NCC950I *   656:43.48 ELAPSED  598:46.16 TCB    1:10.47 SRB  599:56.63 TOT CPU *
NCC949I *                                *
NCC949I *                                *
NCC950I *  MEMORY:      OK VIRTUAL ADDRESS SPACE,       13052K                 *
NCC950I *  EXCPS:    262069 DA,        0 MT,        0 OTHER,    262069 TOTAL   *
NCC950I *  EXCPS BY DDNAME(UNIT): STEPLIB(A9E):     63  STEPLIB(904):     31   *
NCC950I *      CONC(9E2):  26406   RESTRT(A97):     12     PROG(A6B):    864   *
NCC950I *    STOPCK(A6B):    576     BCON(9A6):  20459    ICON(9A6):   1833   *
NCC950I *      BTRK(918):   7648  NEWICON(A8B):   1837    BMAT1(9E2): 202340   *
NCC950I *  PAGES IN:            0 VIO        19926 SWAP         237 OTHER      *
NCC950I *  PAGES OUT:           0 VIO        65663 SWAP         374 OTHER      *
NCC950I *       *OVERFLOW*  PAGE SECONDS            36452.22 RESIDENT SECONDS  *
NCC949I *                                *
NCC950I *  CPU  :-  599:56.63  AT $775/HR                          $3,874.64   *
NCC950I *  EXCPS:-     262069  AT $.45/1000                            $58.97   *
NCC950I *  TOTAL COST FOR STEP EXECUTE  AT PRTY=1   (.5)=          $3,933.61   *
NCC949I ***************************************************************************
IEF373I STEP /EXECUTE / START 89191.1951
IEF374I STEP /EXECUTE / STOP  89192.0647 CPU  598MIN 46.16SEC SRB    1MIN 10.47SEC VIRT  3776K SYS
        300K EXT     128K SYS    8848K
NCC951I ****************** U.S.EPA  SYSTEM EPA2 - JOB  SUMMARY *****************
NCC949I *                                *
NCC951I * JOB UICR503  0005 STEPS                                   CC:  0000   *
NCC949I *                                *
NCC951I *  SUBMIT MONDAY    07/10/89    18:44:04             66:45.75 ON QUEUE *
NCC951I *  START 07/10/89 AT 19:50:50             STOP 07/11/89     6:47:59    *
NCC951I *   657:09.26 ELAPSED  598:46.69 TCB    1:10.84 SRB  599:57.53 TOT CPU *
NCC949I *                                *
NCC949I *                                *
NCC951I *  CPU  :-  599:57.53  AT $775/HR                          $3,874.73   *
NCC951I *  EXCPS:-     265755  AT $.45/1000                            $59.79   *
NCC951I *  TOTAL COST FOR JOB  UICR503  AT PRTY=1   (.5)=          $3,934.52   *
NCC949I ***************************************************************************
IEF375I  JOB /UICR503 / START 89191.1950
IEF376I  JOB /UICR503 / STOP  89192.0647 CPU  598MIN 46.69SEC SRB    1MIN 10.84SEC
DATA SET UTILITY - GENERATE                              PAGE 0001                    --
PROCESSING ENDED AT EOD
DATA SET UTILITY - GENERATE                              PAGE 0001                    --
PROCESSING ENDED AT EOD
DATA SET UTILITY - GENERATE                              PAGE 0001                    --
PROCESSING ENDED AT EOD
```

End system log, start program log

Start module summary

```
Program Name: RUNMGR    Version: ROMNET        Run Date/Time: 071089/195118
```

M O D U L E S U M M A R Y

Name	Version	Date	Description
ADATE	ROMNET	DEC 07, 1988	CALLS FOR DATE/TIME FROM SYSTEM ON IBM
ASORT	ROMNET	AUG 11, 1988	Sorts Subroutines in Alphabetical Order
BCPRCS	ROMNET	SEP 11, 1988	Transfers BC Data to MODEL Arrays per Step
BIGGAM	ROMNET	JAN 17, 1988	Solves Horizontal Transport
BLKMOD	ROMNET	JAN 19, 1988	Block Data Module
BMPRCS	ROMNET	SEP 6, 1988	Transfers BM Data to Model Arrays per Row
BTPRCS	ROMNET	NOV 7 1988	Transfers BT Data to Model Arrays per Step
CELLM	ROMNET	JUN 5, 1988	Establishes Grid Characteristics of Region
CLOCK1	ROMNET	JUN 3, 1988	Compute Step Number and Elapsed Time for Current Step
CLOCK2	ROMNET	JUN 3, 1988	Computes Date and Time for Current Step
CNPRCS	ROMNET	JAN 16, 1988	Transfers CN Data to Model Arrays per Step
CPUTIM	V2A	DEC 10, 1988	RETRIEVES ELAPSED CPUTIM FROM LAST CALL ON IBM
DATTIM	V2A	NOV 11, 1986	CALLS FOR DATE/TIME FROM SYSTEM ON IBM
DUMPHD	ROMNET	JUN 10, 1988	Writes BMAT Subfile Header to Log on Error
FSKIP1	ROMNET	SEP 11, 1988	Skips Records on Disk File
GTILDE	ROMNET	JUL 11, 1988	Solves Vertical Flux Equations
HSTEP	ROMNET	JUL 11, 1988	Calculates Step Sizes (Times)
ICPRCS	ROMNET	JAN 26, 1988	Transfers IC Data to Model Arrays per Step
INDEX1	ROMNET	JUN 11, 1988	Finds Position Of Element In List
INIRUN	ROMNET	DEC 27, 1987	Reads Control Cards and Initializes Run
IOCL	ROMNET	JUN 11, 1988	Translates Octal Code to ASCII Integer
JFILE2	ROMNET	AUG 11, 1988	Attaches Unit Number To Sequential File
JFILE5	ROMNET	AUG 11, 1988	Attaches Unit Number To Fixed Record Sequential File
JULIAN	ROMNET	FEB 4, 1988	Computes JULIAN Date
JUNIT	ROMNET	FEB 11, 1988	Gets Next FORTRAN Unit Number
LILGAM	ROMNET	7 NOV 1988	Solves Chemistry Equations
NEWICS	ROM2_1	May 24, 1989	Transfer CONC Data to NEWICON File at Run End
OPBCON	ROMNET	JAN 14, 1988	Opens BCON File and Reads File Header
OPBMAT	ROMNET	JUN 8, 1988	Opens BMAT File and Reads File Header
OPBTRK	ROMNET	SEP 9, 1988	Opens BTRK File and Reads File Header
OPCONC	ROMNET	JAN 14, 1988	Opens CONC File and Reads File Header
OPICON	ROMNET	JAN 14, 1988	Opens ICON File and Reads File Header
OPSTAV	ROMNET	SEP 10, 1988	Opens State Vector File and Reads File Header
OPWRCN	ROMNET	SEP 11, 1988	Opens CONC File and Writes File Header
ORSPBC	ROMNET	AUG 11, 1988	Establishes Model Order for BCON species
ORSPBM	ROMNET	AUG 11, 1988	Establishes Model Order for BMAT species
ORSPIC	ROMNET	AUG 11, 1988	Establishes Model Order for ICON species
POBCON	ROMNET	AUG 18, 1988	Positions BCON File
POBTRK	ROMNET	SEP 9, 1988	Positions BTRK File
POCONC	ROMNET	JAN 5, 1988	Positions CONC File
POICON	ROMNET	SEP 17, 1988	Positions ICON File
POMXBM	ROMNET	JUN 8, 1988	Positions Multi-BMAT File
POSTAV	ROMNET	JAN 20, 1988	Positions STATE VECTOR File
PQCOEF	ROMNET	SEP 29, 1988	Computes Normalized Reaction Rates per Species
PQ1	ROMNET	SEP 29, 1988	Computes Prod/Decay Terms of Chemistry Eqs
PRGSMY	ROMNET	FEB 17, 1988	Prints Software Summary
RATED	ROMNET	SEP 29, 1988	Computes Production/Decay per Species
RDBCON	ROMNET	JUN 5, 1988	Opens, Positions and Reads BCON File
RDBMAT	ROMNET	SEP 11, 1988	Opens, Positions and Reads BMAT File
RDBT	ROMNET	SEP 9, 1988	Opens and Reads BTRK File
RDBTRK	ROMNET	AUG 9, 1988	Opens, Positions and Reads BTRK File
RDCHAR	ROMNET	JAN 5, 1988	Reads Character String To Internal Buffer
RDCONC	ROMNET	JUN 20, 1988	Opens, Positions and Reads CONC File
RDFILE	ROMNET	DEC 11, 1987	Reads from Output Device to Internal Buffer
RDHDBM	ROMNET	JUN 10, 1988	Reads Multiple BMAT Subfile Headers
RDICON	ROMNET	SEP 20, 1988	Opens, Positions and Reads ICON File
RDMXBM	ROMNET	SEP 17, 1988	Opens and Reads Multiple BMAT File
RDSTAV	ROMNET	JAN 14, 1988	Opens, Positions and Reads State Vector File
RTPHO	ROMNET	OCT 05, 1988	Computes Photolytic Rate Constants
RTSET	ROMNET	OCT 05, 1988	Computes Density Dependent Rate Constants
RUNMGR	ROMNET	SEP 28, 1988	Main Program for the No-windowing version of ROM
TIMER	ROMNET	DEC 10, 1988	Determines Elapsed CPU / Clock Times For Program Steps
WRCHAR	ROMNET	DEC 11, 1988	Writes Character String From Internal Buffer
WRCONC	ROMNET	JUL 7, 1988	Opens CONC file, Writes Headers and Concentrations
WRFILE	ROMNET	DEC 11, 1987	Writes from Internal Buffer to Output Device
WRSTAV	ROMNET	JAN 14, 1988	Opens State Vector File, Writes Headers, State Vector

Start run input information

```
*************** ROM run input information ***************

        model executable image: MODEL


        restart indicator: START_RUN

        number of steps in run: 144
          start date of run:  88184
          start time of run: 120000



        Chemistry Is Turned ON

        simulation start date: 88184
        simulation start hour:    12

        grid name: ROMNET1

        Convection Time Step:   300.00
        FACTOR:      0.0100
        UFRAX:       0.0050
        BFRAX:       0.0010
        FNOLIM:  0.0000833
        DIVP:        1.0000
        DIVQ:        0.5000

         Primary Oxidant Species:
          Species          Index
            NO2             16
            NO              15
            O3              20


        Upper Limit For Chemistry Time Step (sec):    60.0000
        Lower Limit For Chemistry Time Step (sec):    10.0000
```

Start model description

```
        model descriptive text:

             ** USERNM  07-10-89 ***************************************************
             * ROMNET RUN   ROM 2_1 RUN ON IBM 3090
             * PRODUCTION RUN OF ROM2_1 CODE
             * BC FROM FORMULATION FV1872A, NEWIC IS FV1873A
             * BMATRIX FROM FORMULATION FV1873A RUN
             * CONC FILE FV1873A PRODUCED
             ***********************************************************************

        creation date/time of run: 07-10-89 / 19:51:18


        Grid Region ROMNET1  Has Been Defined:

        Longitude of Southwest Grid Corner:    85.0000
        Latitude of Southwest Grid Corner:     36.3333
        Longitude of Northwest Grid Corner:    69.0000
        Latitude of Northeast Grid Corner:     45.0000
        Longitudinal grid Cell Increment (Deg):  -0.250000
        Latitudinal grid Cell Increment (Deg):    0.166667
        Number of Rows In Grid:     52
        Number of Columns In Grid:  64
        Number of Levels:    3
        Number of Species:  35
```

```
        Chemical Species in Model Order:
   ALD2      C2O3      CO        CRES      CRO       ETH       FORM      H2O2      HNO2      HNO3
   HO2       ISOP      MGLY      N2O5      NO        NO2       NO3       O         O1D       O3
   OH        OLE       OPEN      PAN       PAR       PNA       ROR       TO2       TOL       XO2
   XO2N      XYL       MTHL      NONR      TRAC

        Level Names:      1     2     3

>>>
```

```
O1D          O1D          19
O3           O3           20
OH           OH           21
OLE          OLE          22
OPEN         OPEN         23
PAN          PAN          24
PAR          PAR          25
PNA          PNA          26
ROR          ROR          27
TO2          TO2          28
TOL          TOL          29
XO2          XO2          30
XO2N         XO2N         31
XYL          XYL          32
MTHL         MTHL         33
NONR         NONR         34
TRAC         TRAC         35
```

Start description of BCON file

```
Sequential file "BCON        " opened on unit  7
Status: OLD       Readonly: YES  Formatted: NO
Eqname: BCON


          BCON File Header Read

File Creation Date/Time: 070689/142301     File Scenario Start Date/Hour:  88184/12
File Timestep Increment:  1800    First Step on File:     0        Gridname: ROMNET1
SWLON:   85.000   SWLAT:   36.333      NELON:   69.000   NELAT:   45.000
DLON:   -0.25000  DLAT:    0.16667
NCOLS:  64    NROWS:  52    NLEVS:   3
NSPECS:  35  Number of Text Records:   3

File Species Names
    ALD2     C2O3     CO       CRES     CRO

    ETH      FORM     H2O2     HNO2     HNO3

    HO2      ISOP     MGLY     N2O5     NO

    NO2      NO3      O        O1D      O3

    OH       OLE      OPEN     PAN      PAR

    PNA      ROR      TO2      TOL      XO2

    XO2N     XYL      MTHL     NONR     TRAC


File Header Text
BOUNDARY CONDITIONS file generated for 145 time steps.
This BC file is produced by DISK$VAXSET:[ROMEXE.ROMNET]P22G.EXE.
There are thirty-five species used in the current version of the ROM.


      147 records skipped on BCON file
    UNITBC =   7  IDATE = 88184  ITIME = 123000  ISTPBC =   1
     MODEL       BCON        BCON
    SPECIES     SPECIES     POSITION

     ALD2        ALD2        01
     C2O3        C2O3        02
     CO          CO          03
     CRES        CRES        04
     CRO         CRO         05
     ETH         ETH         06
     FORM        FORM        07
     H2O2        H2O2        08
     HNO2        HNO2        09
     HNO3        HNO3        10
     HO2         HO2         11
     ISOP        ISOP        12
```

```
MGLY        MGLY        13
N2O5        N2O5        14
NO          NO          15
NO2         NO2         16
NO3         NO3         17
O           O           18
O1D         O1D         19
O3          O3          20
OH          OH          21
OLE         OLE         22
OPEN        OPEN        23
PAN         PAN         24
PAR         PAR         25
PNA         PNA         26
ROR         ROR         27
TO2         TO2         28
TOL         TOL         29
XO2         XO2         30
XO2N        XO2N        31
XYL         XYL         32
MTHL        MTHL        33
NONR        NONR        34
TRAC        TRAC        35
```

Start description of BTRK file

```
Sequential file "BTRK        " opened on unit  8
Status: OLD       Readonly: YES  Formatted: NO
Eqname: BTRK


          BTRK file header read

File Creation Date/Time: 070789/145604     File Scenario Start Date/Hour:  88184/12
File Timestep Increment:  1800    First Step on File:  1800        Gridname: ROMNET1
SWLON:   85.000   SWLAT:   36.333     NELON:   69.000   NELAT:   45.000
DLON:   -0.25000  DLAT:    0.16667
NCOLS:  64    NROWS:  52    NLEVS:   0
NSPECS:   0  Number of Text Records:   8

File Header Text
               ...  ROMNET BCKTRAK FILE ...
              for ROM2.1 on the ROMNET grid
      generated from formulation FV1871A for 144  steps
       using  USER2$DISK:[FOREMAN.FV1873A]P38GX1.COM
              USER2$DISK:[FOREMAN.FV1873A]P38GX1.CPR
              DISK$VAXSET:[ROMEXE.ROMNET]P38G.EXE
               07 JUL 89
. . . .
```

Start description of BMAT file

```
    Sequential file "BMAT1       " opened on unit  9
    Status: OLD       Readonly: YES  Formatted: NO
    Eqname: BMAT1


              BMAT file header read

    File Creation Date/Time: 071089/083052     File Scenario Start Date/Hour:  88184/12
    File Timestep Increment:  1800    First Step on File:  1800        Gridname: ROMNET1
    SWLON:   85.000   SWLAT:   36.333      NELON:   69.000   NELAT:   45.000
    DLON:   -0.25000  DLAT:    0.16667
    NCOLS:  64    NROWS:  52    NLEVS:   3
    NSPECS:  35  Number of Text Records:  10

File Species Names
    ALD2      C2O3      CO        CRES      CRO

    ETH       FORM      H2O2      HNO2      HNO3

    HO2       ISOP      MGLY      N2O5      NO

    NO2       NO3       O         O1D       O3

    OH        OLE       OPEN      PAN       PAR

    PNA       ROR       TO2       TOL       XO2

    XO2N      XYL       NONR      MTHL      TRAC


File Level Names
       1        2        3

File Header Text
              ...  RURAL OZONE MULTIPLE BMATRIX FILE ...
                     for ROM2.1 on the ROMNET grid
                       ----------------------
          generated from formulation FV1871A for 144  steps
                       ----------------------
          using  USER2$DISK:[FOREMAN.FV1873A]P40GX1.COM
                 USER2$DISK:[FOREMAN.FV1873A]P40GX1.CPR
                 DISK$VAXSET:[ROMEXE.ROMNET]P40G.EXE
                07 JUL 89
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

         MIF file name     creation date/time     last update date/time
         xxxxxxxxxxxxx     xxxxxxxxxxxxxxxxxx     xxxxxxxxxxxxxxxxxxxxx

            MF123A           70589 / 154618          70789 / 084352
            MF143A           70589 / 154618          70789 / 084352
            MF144A           70589 / 154618          70789 / 084352
            MF145A           70589 / 154618          70789 / 084352

    BMATRIX contains a reduced set of 26 species

        0 records skipped on BMAT file
    UNITBM =   9  IDATE = 88184  ITIME = 123000  ISTPBM =   1
     MODEL        BMAT        BMAT
    SPECIES      SPECIES     POSITION

     ALD2         ALD2         01
     C2O3         C2O3         02
     CO           CO           03
     CRES         CRES         02
     CRO          CRO          04
     ETH          ETH          05
     FORM         FORM         06
     H2O2         H2O2         07
     HNO2         HNO2         08
     HNO3         HNO3         09
```

```
HO2        HO2        10
ISOP       ISOP       11
MGLY       MGLY       12
N2O5       N2O5       12
NO         NO         13
NO2        NO2        14
NO3        NO3        04
O          O          15
O1D        O1D        15
O3         O3         16
OH         OH         17
OLE        OLE        18
OPEN       OPEN       17
PAN        PAN        19
PAR        PAR        20
PNA        PNA        02
ROR        ROR        21
TO2        TO2        21
TOL        TOL        22
XO2        XO2        10
XO2N       XO2N       10
XYL        XYL        23
MTHL       MTHL       25
NONR       NONR       24
TRAC       TRAC       26
```

Start description of CONC file

```
Sequential file "CONC        " opened on unit 10
Status: UNKNOWN   Readonly: NO   Formatted: NO
Eqname: CONC

          CONC File Header Written

File Creation Date/Time: 071089/195118     File Scenario Start Date/Hour:  88184/12
File Timestep Increment:  1800    First Step on File:     0        Gridname: ROMNET1
SWLON:   85.000   SWLAT:   36.333      NELON:   69.000   NELAT:   45.000
DLON:   -0.25000  DLAT:    0.16667
NCOLS:  64    NROWS:  52    NLEVS:   3
NSPECS:  35  Number of Text Records:   8
```

The following eight parameters are the creation dates and times of the BMAT, BTRK, BCON, and ICON files, and are used here as an audit trail.

```
CDBMCN = 071089  CTBMCN = 083052
CDBTCN = 070789  CTBTCN = 145604
CDBCCN = 070689  CTBCCN = 142301
CDICCN = 070689  CTICCN = 142155
```

```
File Species Names
   ALD2     C2O3     CO       CRES     CRO

   ETH      FORM     H2O2     HNO2     HNO3

   HO2      ISOP     MGLY     N2O5     NO

   NO2      NO3      O        O1D      O3

   OH       OLE      OPEN     PAN      PAR

   PNA      ROR      TO2      TOL      XO2

   XO2N     XYL      MTHL     NONR     TRAC

File Header Text
ROM2.1
** USERNM  07-10-89 ****************************************************
* ROMNET RUN   ROM 2_1 RUN ON IBM 3090
```

```
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1872A, NEWIC IS FV1873A
* BMATRIX FROM FORMULATION FV1873A RUN
* CONC FILE FV1873A PRODUCED
*****************************************************************************
```

Start of the log of the first three time steps

```
''' ''' ''' 
```

```
File Header Text
** USERNM  07-10-89 ***************************************************
* ROMNET RUN   ROM 2_1 RUN ON IBM 3090
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1872A, NEWIC IS FV1873A
* BMATRIX FROM FORMULATION FV1873A RUN
* CONC FILE FV1873A PRODUCED
*********************************************************************


            IN File Header Written

    File Creation Date/Time: 071089/195118     File Scenario Start Date/Hour:  88184/12
    File Timestep Increment:  1800    First Step on File:     0        Gridname: ROMNET1
    SWLON:   85.000   SWLAT:   36.333      NELON:   69.000   NELAT:   45.000
    DLON:   -0.25000  DLAT:    0.16667
    NCOLS:  64    NROWS:  52    NLEVS:   3
    NSPECS:  35  Number of Text Records:   7

        State Vector LILGAM Control Values:
        Advection Time Step:   1800.00
        Convection Time Step:   300.00
```

The following eight parameters are hard-coded constants used in the solution of the chemistry algorithms. Parameter definitions can be found in Table E-11 of Part 3 of the ROM User's Guide.

```
        UFRAX:       0.0050
        BFRAX:       0.0010
        FACTOR:      0.0100
        DIVP:        1.0000
        DIVQ:        0.5000
        ULIM:       60.0000
        BLIM:       10.0000
        FNOLIM:  0.0000833
        Number of Primary Oxidant Species:   3
        Primary Oxidant Species Indices:       16     15     20

          Species ordering in STATE VECTOR file:
          NXSPBM          NXSPBC          NXSPIC
            1               1               1
            2               2               2
            3               3               3
            2               4               4
            4               5               5
            5               6               6
            6               7               7
            7               8               8
            8               9               9
            9              10              10
           10              11              11
           11              12              12
           12              13              13
           12              14              14
           13              15              15
           14              16              16
            4              17              17
           15              18              18
           15              19              19
           16              20              20
           17              21              21
           18              22              22
           17              23              23
           19              24              24
           20              25              25
            2              26              26
           21              27              27
           21              28              28
           22              29              29
           10              30              30
           10              31              31
           23              32              32
```

```
25          33          33
24          34          34
26          35          35

Progress Completed: DATE/TIME =  88184 / 123000    STEP =    1

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

Start of model step   2      Date:  88184   Time: 130000   Elapsed time (sec):     3600

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


number of POSITIVE roots:     78

number of DOUBLE   roots:    291

CPU minutes for step:     6.12   CPU hours for run:     0.21
CLOCK minutes for step:   6.55   CLOCK hours for run:   0.22
Current Date: 071089   Current Time: 200433

Progress Completed: DATE/TIME =  88184 / 130000    STEP =    2

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

Start of model step   3      Date:  88184   Time: 133000   Elapsed time (sec):     5400

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


number of POSITIVE roots:     26

number of DOUBLE   roots:      3

CPU minutes for step:     5.70   CPU hours for run:     0.30
CLOCK minutes for step:   5.97   CLOCK hours for run:   0.32
Current Date: 071089   Current Time: 201031

Progress Completed: DATE/TIME =  88184 / 133000    STEP =    3


                                   ...
                                   ...
                                   ...
```

Start of the log of the last three time steps

```
*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

Start of model step 142      Date:  88187   Time: 110000   Elapsed time (sec):   255600

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


number of POSITIVE roots:     78

number of DOUBLE   roots:     18

CPU minutes for step:     6.28   CPU hours for run:     9.78
CLOCK minutes for step:   6.50   CLOCK hours for run:  10.73
Current Date: 071189   Current Time:  63506

Progress Completed: DATE/TIME =  88187 / 110000    STEP =  142

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***
```

```
    Start of model step   3      Date:  88187   Time: 113000   Elapsed time (sec):   257400

    CPU minutes for step:     6.04   CPU hours for run:     9.88
    CLOCK minutes for step:   6.25   CLOCK hours for run:  10.83
    Current Date: 071189   Current Time:  64121

    Progress Completed: DATE/TIME =  88187 / 113000    STEP =  143

    Start of model step 144      Date:  88187   Time: 120000   Elapsed time (sec):   259200
```

Final program tally of CPU and clock time

```
    CPU minutes for step:     5.79   CPU hours for run:     9.98
    CLOCK minutes for step:   6.00   CLOCK hours for run:  10.93
    Current Date: 071189   Current Time:  64721

    Progress Completed: DATE/TIME =  88187 / 120000    STEP =  144
```

Start description of NEWICON file

```
    Sequential file "NEWICON      " opened on unit 12
    Status: UNKNOWN   Readonly: NO   Formatted: NO
    Eqname: NEWICON

            NEW ICON File Header Written

    File Creation Date/Time: 071189/064722     File Scenario Start Date/Hour:  88187/12
    File Timestep Increment:  1800    First Step on File:     0        Gridname: ROMNET1
    SWLON:   85.000   SWLAT:   36.333      NELON:   69.000   NELAT:   45.000
    DLON:   -0.25000  DLAT:    0.16667
    NCOLS:  64    NROWS:  52    NLEVS:   3
    NSPECS:  35  Number of Text Records:   2

    CDBMCN = 071089  CTBMCN = 083052
    CDBTCN = 070789  CTBTCN = 145604
    CDBCCN = 070689  CTBCCN = 142301
    CDICCN = 070689  CTICCN = 142155

File Species Names
    ALD2     C2O3     CO       CRES     CRO

    ETH      FORM     H2O2     HNO2     HNO3

    HO2      ISOP     MGLY     N2O5     NO

    NO2      NO3      O        O1D      O3

    OH       OLE      OPEN     PAN      PAR

    PNA      ROR      TO2      TOL      XO2

    XO2N     XYL      MTHL     NONR     TRAC

File Header Text
ROM2.1
**         07-10-89 ***************************************************
* ROMNET RUN   ROM 2_1 RUN ON IBM 3090
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1872A, NEWIC IS FV1873A
```

```
* BMATRIX FROM FORMULATION FV1873A RUN
* CONC FILE FV1873zzzzzzzzzzzzzzzzzA PRODUCED
**********************************************************************


    NEW ICON T.S.H. written in NEWICS
    IDATIC:  88187  ITIMIC: 120000  IELPIC:        0  ISTPIC:    0


         .... Model Run Completion from RUNMGR ....
```

SECTION 7

QUALITY ASSURANCE OF THE OUTPUT FILES

Our quality assurance programs are located in two directories: [ROMLIB.RPROCS] for Processor Network output, and [ROMLIB.ROXAN] for Core Model output. You will need to compile the code, build link streams, and create executables for the programs in these directories (refer to Section 3).

7.1 QUALITY ASSURANCE OF PROCESSOR FILES AND MODEL FILES

You will use program CMPGRID to compare your "Z" PF/MF output with our "X" files. We designed the program to handle multiple sets of files (up to a total of 45 individual input and output files). This quality assurance program offers a choice of several binary operations.

ADD — cell-by-cell addition of values in the grids,

$$Z_{i,j} + X_{i,j}$$

DIFF — subtraction of the two grids,

$$Z_{i,j} - X_{i,j}$$

DIFFN — subtraction, normalized by the first grid's values,

$$\frac{Z_{i,j} - X_{i,j}}{Z_{i,j}}$$

DIFFNA — subtraction, normalized by the first grid's average values,

$$\frac{Z_{i,j} - X_{i,j}}{\overline{Z}}$$

DIFFNRMS — subtraction, normalized by the summed root mean square,[24]

$$\frac{Z_{i,j} - X_{i,j}}{[\sum(Z_{i,j}^2 + X_{i,j}^2)] \cdot (2MN)^{0.5}}$$

The CMPGRID program will initialize output file(s) as it executes. We show an example PFCMP.COM run stream below; it creates PF115D, a file of calculated differences between PF115X and PF115Z.

24. where M and N are the size of the matrices (i.e., Z and X are MxN).

When you run CMPGRID in batch mode and create a log, the log will contain the statistics summary; your output files should show zero differences when compared with our output files. (Note that you do not actually need to write PF115D; you can run the program to generate just the statistics summary.)

```
$ ! RSMRP1VX
$ !
$ ! run stream in [ROMLIB.RPROCS]PFCMP.COM
$ ASSIGN MET15:[ROM2_1.ROMNET]DIRECT2.DAT                PFMFDIR
$ !
$ ASSIGN MET15:[ROMNET1.D88184]PF115X.DAT PF115X     !  our benchmark
$ !
$ ASSIGN MET15:[ROMNET1.D88184]PF115Z.DAT PF115Z     !  your test file
$ !
$ ! initialize output file(s)
$ RUN MET15:[ROMEXE.FILESMAN]CRTFLS
'MET15' 'ROMNET1'
'PF115D' 88184 12 01 72
' ' 0 0 0 0
$ !
$ ASSIGN MET15:[ROMNET1.D88184]PF115D.DAT PF115D     !  difference file
$ !
$ RUN MET15:[ROMEXE.RPROCS]CMPGRID
YES              !  generate output file PF115D
PF115X
PF115Z
PF115D
DIFF             !  operation to be performed
YES               !  report statistics summary
88184,12,05      !  start date/time, # of hours to process for 1st file
88184,12,05      !  start date/time, # of hours to process for 2nd file
```

7.2 QUALITY ASSURANCE OF THE CONC FILE

We include two quality assurance programs for the CONC file: CNGRID will print CONC data to a log file, and CONCCMP will let you compare your CONC file with our benchmark run.

Quality assurance of the CONC files must be performed on the VAX. You must make sure that you run CNTRAN (the IBM binary to VAX binary program on the IBM) before you transport the CONC file to the VAX (see Section 6). If you have DEC's DTF, you can use [ROMLIB.ROXAN]CN2VAX.COM for the transfer. When you execute this run stream, you will be asked the name of the CONC file (as a data set on the IBM), and the file's destination on the VAX (as a disk, directory, and file name). During the transfer procedure, you may get the error message "No files found." You can ignore this message; it pertains to the EPA's output graphics routines and does not affect the transfer process.

If you do not have DEC's DTF on your machine, you will have to make the transfer via tape.

7.2.1 CONCCMP

This program will compare your CONC file with our benchmark output, and will write the resultant file to [ROMLIB.LOGS]CONCCMP.DAT. [Note: due to variations in processing, the two files may not be exact.]

CONCCMP has the capability to perform the same binary operations as CMPGRID (Section 7.1). There are two run streams for this program: CONCCMP2.COM will compare two CONC files, and CONCCMP1.COM generates statistics if you are only working with a single CONC file.

7.2.2 CNGRID

This program allows you to request selected output of specific ROM layer, species, and date/hour combinations for CONC file data. The user can review the file contents to determine if values are representative of the real atmosphere. This is only one of many tools that should be used to analyze the results of a ROM simulation. The run stream is CNGRIDX1.COM.

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SECTION 8

SAMPLE LINK AND RUN STREAMS FOR A CORE MODEL RUN ON A VAX

The EPA's VAX 8650 is not dedicated to the ROM and is continuously used for other purposes during normal working hours. It has a computation time to real time ratio of approximately 1:1 (i.e., each 30-minute time step takes about 30 minutes to compute). With this in mind, we show a sample link stream (ROM2_1V1B.LNK) and a sample run stream (ROM2_1V1B.COM) below (Figure 5 and Figure 6).[25]

The sample run stream below contains control elements (starting with the line `'START_RUN  ' 144 88184 120000`) that are defined in Section 6.3.

ROM2_1V1B.LNK follows:

```
$ ! RSMRP1VX
$ SET VERIFY
$ ! RUNSTREAM IS IN FILE DISK$VAXSET:[ROMLIB.CORE]ROM2_1V1B.LNK
$ ON WARNING THEN EXIT
$ ASSIGN MLAB: SYS$PRINT
$ MAPFILE = "DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.MAP"
$ EXEFILE = "DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.EXE"
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RUNMGR.OBJ          A1
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ADATE.OBJ           A2
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ASORT.OBJ           A3
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]BCPRCS.OBJ          A4
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]BIGGAM.OBJ          A5
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]BLKMOD.OBJ          A6
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]BMPRCS.OBJ          A7
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]BTPRCS.OBJ          A8
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]CELLM.OBJ           A9
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]CLOCK1.OBJ          A10
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]CLOCK2.OBJ          A11
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]CNPRCS.OBJ          A12
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]CPUTIM.OBJ          A13
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]DATTIM.OBJ          A14
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]DUMPHD.OBJ          A15
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]FSKIP1.OBJ          A16
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]GTILDE.OBJ          A17
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]HSTEP.OBJ           A18
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ICPRCS.OBJ          A19
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]INDEX1.OBJ          A20
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]INIRUN.OBJ          A21
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]IOCL.OBJ            A22
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]JFILE2.OBJ          A23
```

(continued)

Figure 5. Sample link stream for a Core Model run on a VAX 8650.

25. Not included with the 19 distribution tapes.

```
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]JFILE5.OBJ          A24
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]JFILE6.OBJ          A25
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]JULIAN.OBJ          A26
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]JUNIT.OBJ           A27
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]LILGAM.OBJ          A28
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]NEWICS.OBJ          A29
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPBCON.OBJ          A30
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPBMAT.OBJ          A31
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPBTRK.OBJ          A32
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPCONC.OBJ          A33
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPSTAV.OBJ          A34
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPICON.OBJ          A35
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]OPWRCN.OBJ          A36
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ORSPBC.OBJ          A37
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ORSPBM.OBJ          A38
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]ORSPIC.OBJ          A39
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POBCON.OBJ          A40
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POMXBM.OBJ          A41
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POBTRK.OBJ          A42
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POCONC.OBJ          A43
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POSTAV.OBJ          A44
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]POICON.OBJ          A45
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]PQ1.OBJ             A46
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]PQCOEF.OBJ          A47
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]PRGSMY.OBJ          A48
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RATED.OBJ           A49
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDBCON.OBJ          A50
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDBMAT.OBJ          A51
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDBT.OBJ            A52
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDBTRK.OBJ          A53
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDCHAR.OBJ          A54
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDCONC.OBJ          A55
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDFILE.OBJ          A56
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDHDBM.OBJ          A57
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDSTAV.OBJ          A58
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDICON.OBJ          A59
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RDMXBM.OBJ          A60
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RTPHO.OBJ           A61
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]RTSET.OBJ           A62
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]TIMER.OBJ           A63
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]WRCHAR.OBJ          A64
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]WRCONC.OBJ          A65
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]WRFILE.OBJ          A66
$ ASSIGN/USER_MODE DISK$VAXSET:[ROMOBJ.CORE]WRSTAV.OBJ          A67
$ LINK -
  /EXECUTABLE = DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.EXE -
  /MAP = DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.MAP -
  A1, -
  A2, -
  A3, -
   .
   .
   .
  A65, -
  A66, -
  A67
$ IPRINT -
  /NOHEADER -
  /NOFEED -
  /NOTIFY -
  DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.MAP
```

(end of link stream)

Figure 5 (concluded).

ROM2_1V1B.COM follows:

```
$ !RSMRP1VX
$ ! run stream is in MET15:[ROMLIB.CORE]ROM2_1V1B.COM
$ ! assign input files
$ ASSIGN MET52:[ROMNET1.CORE]BCFV1872X.DAT                    BCON
$ ASSIGN MET52:[ROMNET1.CORE]BMAT1FV1873X.DAT                 BMAT1
$ ASSIGN MET52:[ROMNET1.CORE]BTRKFV1873X.DAT                  BTRK
$ ASSIGN MET52:[ROMNET1.CORE]ICFV1872X.DAT                    ICON
$ ! assign files used for execution
$ ! files need to be initialized before run
$ ASSIGN USER62$DISK:[UIC.CORE]FV1873X.PRG                    PROG
$ ASSIGN USER62$DISK:[UIC.CORE]FV1873X.RES                    RESTRT
$ ASSIGN USER62$DISK:[UIC.CORE]FV1873X.STP                    STOPCK
$ !assign output files
$ ASSIGN METO:[ROX.CONC]FV1873X.DAT                           CONC
$ ASSIGN METO:[ROX.CONC]FV1873X.NIC                           NEWICON
$ ASSIGN DISK$VAXSET:[ROMEXE.CORE]ROM2_1V1B.EXE               ROM2_1
$ DIRECTORY/FULL ROM2_1
$ RUN ROM2_1
'START_RUN   ' 144 88184 120000
.TRUE.
88184 12
'ROMNET1'
*****************************************************
* ROMNET RUN   ROM 2_1 RUN ON VAX
* PRODUCTION RUN OF ROM2_1 CODE
* BC FROM FORMULATION FV1872X, NEWIC IS FV1873X
* BMATRIX FROM FORMULATION FV1873X RUN BTRK IS FV1873X
* CONC FILE FV1873X PRODUCED
*****************************************************

$ SHOW PROCESS/ACCOUNTING
```

(end of run stream)

Figure 6. Sample run stream for a Core Model run on a VAX 8650.

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APPENDIX A

LOGS OF COPYING THE VAX SYSTEM FILES

The following are the logs of copying the VAX system files to labeled distribution tapes. These distribution tapes contain all of the VAX ROM 2.1 source code and data files for a three-day scenario beginning with Julian date 88184.

	Tape Volume	Description	Page
(1)	101812	CODE 1	A-2
(2)	102322	CODE 2	A-24
(3)	099804	RAWDATA	A-76
(4)	100594	PFMF 1	A-78
(5)	103259	PFMF 2	A-81
(6)	100417	PFMF 3	A-84
(7)	102283	POINTS 1	A-86
(8)	102308	POINTS 2	A-88
(9)	102374	MOBILE	A-90
(10)	103423	AREA & BIOGENIC	A-94
(11)	B20017	CONC 1	A-96
(12)	B20033	CONC 2	A-98
(13)	B20005	CONC 3	A-100

1. Tape Volume 101812

Description: CODE 1

```
        HYDRA's boot time was    22-APR-1991 02:55:37.67

*************************************************************************
*                        CURRENT NEWS ALERTS                            *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "HYDRA"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "CODE 1"     9TRACK

  Volume:      101812              Owner:      HYDRA::YOJ
  Format:      BACKUP              Brand:      CE'D TAPE
  Allocated:    4-MAY-1991 14:45   Scratch:    18-MAY-1991 14:45
  Purchased:    4-AUG-1989 14:52   Cleaned:    15-NOV-1990 11:43
  Media type:  9TRACK              Length:       2400
  Mounts:           2              UIC:        [NEROP1VX,YOJ]
  Location:    VAXTM1              Protection: S:RW,O:RW,G:R,W:
  Notes:       CODE 1
  Offsite:                         Onsite:
  IO Errors:        0              Flag:       ALLOCATED
  Next volume: *none*              Previous:   *none*
  Pool:                            Rec len: 0  Block factor: 0
  Initialized:  4-MAY-1991 14:45   Density:    6250
  Slot number:
  Side:                            Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   101812
%DCL-I-ALLOC, _$3$MUA2: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "101812"
%SLS-I-OPRNOTIF, operator notified ( 4-MAY-1991 14:45:41)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 101812
$ MOUNT / WRITE / DENSITY = 6250 STAPE  101812
%MOUNT-I-MOUNTED, 101812 mounted on _$3$MUA2: (HSC002)
$ !
$ SHOW DEV / FULL  STAPE

Magtape $3$MUA2: (HSC002), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
```

```
    Error count                 1266    Operations completed              34553
    Owner process        "BATCH_546"    Owner UIC                 [NEROP1VX,YOJ]
    Owner process ID        206028ED    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                3    Default buffer size                2048
    Volume label            "101812"    Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status             Process    Mount count                           1
    ACP process name      "MUA2CACP"
    Density                     6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.COMPILE]

Directory $2$DUA58:[ROMLIB.COMPILE]
ASSIGNEXT.COM;4          5/6       24-JAN-1991 00:00:00.00
BLDLNK.COM;7             4/6        8-JAN-1991 00:00:00.00
BLDLNK.LOG;1            13/15       8-JAN-1991 00:00:00.00
BLDLNK2.COM;5            5/6        7-JAN-1991 00:00:00.00
BLDLNK2.LOG;1           18/18       8-JAN-1991 00:00:00.00
BLDLNK3.COM;1            1/3       21-JAN-1991 00:00:00.00
BLDLNK4.COM;2            1/3       24-JAN-1991 00:00:00.00
CRLINK2.COM;3            6/6        8-JAN-1991 00:00:00.00
FOROTHER.COM;1           3/3        4-JAN-1991 00:00:00.00
Total of 9 files, 56/66 blocks.
$ COPY / LOG MET58:[ROMLIB.COMPILE]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]ASSIGNEXT.COM;4 copied to _$3$MUA2:[]ASSIGNEXT.COM;4 (47 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK.COM;7 copied to _$3$MUA2:[]BLDLNK.COM;7 (37 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK.LOG;1 copied to _$3$MUA2:[]BLDLNK.LOG;1 (122 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK2.COM;5 copied to _$3$MUA2:[]BLDLNK2.COM;5 (50 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK2.LOG;1 copied to _$3$MUA2:[]BLDLNK2.LOG;1 (167 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK3.COM;1 copied to _$3$MUA2:[]BLDLNK3.COM;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]BLDLNK4.COM;2 copied to _$3$MUA2:[]BLDLNK4.COM;2 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]CRLINK2.COM;3 copied to _$3$MUA2:[]CRLINK2.COM;3 (89 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.COMPILE]FOROTHER.COM;1 copied to _$3$MUA2:[]FOROTHER.COM;1 (60 records)
%COPY-S-NEWFILES, 9 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.FILESMAN]

Directory $2$DUA58:[ROMLIB.FILESMAN]
CREATE1.DFL;1            1/3       12-JUL-1990 08:47:32.76
CREATE1.FOR;1            9/9        7-JUN-1988 14:27:52.88
CREATE1.LNK;1            3/3       11-JAN-1991 00:00:00.00
CREATE2.DFL;1            2/3       12-JUL-1990 08:47:34.44
CREATE2.FOR;1            5/6       19-JUL-1988 13:13:22.48
CREATE2.LNK;1            4/6       11-JAN-1991 00:00:00.00
CREATE3.DFL;1            2/3       12-JUL-1990 08:47:36.20
CREATE3.FOR;1            8/9       19-JUL-1988 13:19:50.11
CREATE3.LNK;1            4/6       11-JAN-1991 00:00:00.00
CREATE4.DFL;1            1/3       12-JUL-1990 08:47:37.72
CREATE4.FOR;1           10/12       9-JUN-1988 17:04:02.13
CREATE4.LNK;1            3/3       11-JAN-1991 00:00:00.00
CREATE6.DFL;1            2/3       12-JUL-1990 08:47:40.26
CREATE6.FOR;1           22/24       2-APR-1990 15:41:30.23
CREATE6.LNK;1            4/6       11-JAN-1991 00:00:00.00
CRTFLS.DFL;1             1/3       12-JUL-1990 08:47:41.72
CRTFLS.FOR;1            11/12       1-MAY-1990 14:43:31.58
```

```
CRTFLS.LNK;1              3/3       11-JAN-1991 00:00:00.00
FLIST1.FOR;1              4/6        7-JUN-1988 11:40:52.04
FLIST2.FOR;1              7/9       28-JUL-1988 10:01:00.54
INIT1.FOR;1               4/6        7-JUN-1988 11:42:42.84
LIST1.DFL;1               2/3       12-JUL-1990 08:47:43.56
LIST1.FOR;1               3/3        4-JUN-1988 13:28:59.22
LIST1.LNK;1               5/6       11-JAN-1991 00:00:00.00
MARK.FOR;1               10/12       7-JUN-1988 11:43:21.23
OPFLS.DFL;1               1/3       12-JUL-1990 08:47:47.44
OPFLS.FOR;1              11/12      11-APR-1990 14:11:51.35
OPFLS.LNK;1               3/3       11-JAN-1991 00:00:00.00
PRINT8.FOR;1              5/6        7-JUN-1988 11:44:27.39
PRNT5A.FOR;1              5/6        6-JUN-1988 14:13:30.64
PRNT5B.FOR;1              6/6        6-JUN-1988 14:26:29.73
PRNT6A.FOR;1              5/6       19-JUL-1988 13:36:24.40
PRNT6B.FOR;1              6/6       19-JUL-1988 13:37:56.95
PRNT7A.FOR;1              3/3        7-JUN-1988 11:47:22.60
PRNT7B.FOR;1             11/12      19-JUL-1988 13:32:54.41
PROG1.EXT;1               3/3        7-JUN-1988 12:07:13.74
PROG2.EXT;1               3/3        7-JUN-1988 09:42:34.03
PROG3.EXT;1               2/3        7-JUN-1988 09:43:06.38
PROG4.EXT;1               3/3        7-JUN-1988 12:07:54.76
PROG5.EXT;1               2/3        3-JUN-1988 09:27:41.65
PROG6.EXT;1               3/3        9-JUN-1988 16:43:26.92
RDDB1.FOR;1               4/6        7-JUN-1988 11:48:51.26
RDDB2.FOR;1               4/6        7-JUN-1988 11:49:25.61
RDDB3.FOR;1               6/6        7-JUN-1988 11:50:01.01
RDDB4.FOR;1               7/9       28-MAR-1990 12:22:42.09
RDPGMS.FOR;1              7/9       19-JUL-1988 13:16:46.93
SPLIT.FOR;1               6/6        7-JUN-1988 08:11:22.27
VALID1.FOR;1              7/9        7-JUN-1988 11:53:46.07
VALID2.FOR;1              5/6       19-JUL-1988 13:53:34.85
WRPGMS.FOR;1              7/9        7-JUN-1988 11:55:13.02
WRRPT.FOR;1               9/9       19-JUL-1988 13:55:03.05
Total of 51 files, 264/318 blocks.
$ COPY / LOG MET58:[ROMLIB.FILESMAN]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE1.DFL;1 copied to _$3$MUA2:[]CREATE1.DFL;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE1.FOR;1 copied to _$3$MUA2:[]CREATE1.FOR;1 (191 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE1.LNK;1 copied to _$3$MUA2:[]CREATE1.LNK;1 (28 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE2.DFL;1 copied to _$3$MUA2:[]CREATE2.DFL;1 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE2.FOR;1 copied to _$3$MUA2:[]CREATE2.FOR;1 (99 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE2.LNK;1 copied to _$3$MUA2:[]CREATE2.LNK;1 (44 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE3.DFL;1 copied to _$3$MUA2:[]CREATE3.DFL;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE3.FOR;1 copied to _$3$MUA2:[]CREATE3.FOR;1 (157 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE3.LNK;1 copied to _$3$MUA2:[]CREATE3.LNK;1 (42 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE4.DFL;1 copied to _$3$MUA2:[]CREATE4.DFL;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE4.FOR;1 copied to _$3$MUA2:[]CREATE4.FOR;1 (179 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE4.LNK;1 copied to _$3$MUA2:[]CREATE4.LNK;1 (28 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE6.DFL;1 copied to _$3$MUA2:[]CREATE6.DFL;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE6.FOR;1 copied to _$3$MUA2:[]CREATE6.FOR;1 (426 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CREATE6.LNK;1 copied to _$3$MUA2:[]CREATE6.LNK;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CRTFLS.DFL;1 copied to _$3$MUA2:[]CRTFLS.DFL;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CRTFLS.FOR;1 copied to _$3$MUA2:[]CRTFLS.FOR;1 (236 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]CRTFLS.LNK;1 copied to _$3$MUA2:[]CRTFLS.LNK;1 (32 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]FLIST1.FOR;1 copied to _$3$MUA2:[]FLIST1.FOR;1 (99 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]FLIST2.FOR;1 copied to _$3$MUA2:[]FLIST2.FOR;1 (145 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]INIT1.FOR;1 copied to _$3$MUA2:[]INIT1.FOR;1 (65 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]LIST1.DFL;1 copied to _$3$MUA2:[]LIST1.DFL;1 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]LIST1.FOR;1 copied to _$3$MUA2:[]LIST1.FOR;1 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]LIST1.LNK;1 copied to _$3$MUA2:[]LIST1.LNK;1 (50 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]MARK.FOR;1 copied to _$3$MUA2:[]MARK.FOR;1 (181 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]OPFLS.DFL;1 copied to _$3$MUA2:[]OPFLS.DFL;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]OPFLS.FOR;1 copied to _$3$MUA2:[]OPFLS.FOR;1 (188 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]OPFLS.LNK;1 copied to _$3$MUA2:[]OPFLS.LNK;1 (32 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRINT8.FOR;1 copied to _$3$MUA2:[]PRINT8.FOR;1 (101 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT5A.FOR;1 copied to _$3$MUA2:[]PRNT5A.FOR;1 (99 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT5B.FOR;1 copied to _$3$MUA2:[]PRNT5B.FOR;1 (137 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT6A.FOR;1 copied to _$3$MUA2:[]PRNT6A.FOR;1 (102 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT6B.FOR;1 copied to _$3$MUA2:[]PRNT6B.FOR;1 (128 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT7A.FOR;1 copied to _$3$MUA2:[]PRNT7A.FOR;1 (73 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PRNT7B.FOR;1 copied to _$3$MUA2:[]PRNT7B.FOR;1 (182 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG1.EXT;1 copied to _$3$MUA2:[]PROG1.EXT;1 (31 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG2.EXT;1 copied to _$3$MUA2:[]PROG2.EXT;1 (30 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG3.EXT;1 copied to _$3$MUA2:[]PROG3.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG4.EXT;1 copied to _$3$MUA2:[]PROG4.EXT;1 (32 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG5.EXT;1 copied to _$3$MUA2:[]PROG5.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]PROG6.EXT;1 copied to _$3$MUA2:[]PROG6.EXT;1 (31 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]RDDB1.FOR;1 copied to _$3$MUA2:[]RDDB1.FOR;1 (77 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]RDDB2.FOR;1 copied to _$3$MUA2:[]RDDB2.FOR;1 (78 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]RDDB3.FOR;1 copied to _$3$MUA2:[]RDDB3.FOR;1 (115 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]RDDB4.FOR;1 copied to _$3$MUA2:[]RDDB4.FOR;1 (146 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]RDPGMS.FOR;1 copied to _$3$MUA2:[]RDPGMS.FOR;1 (148 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]SPLIT.FOR;1 copied to _$3$MUA2:[]SPLIT.FOR;1 (103 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]VALID1.FOR;1 copied to _$3$MUA2:[]VALID1.FOR;1 (138 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]VALID2.FOR;1 copied to _$3$MUA2:[]VALID2.FOR;1 (115 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]WRPGMS.FOR;1 copied to _$3$MUA2:[]WRPGMS.FOR;1 (167 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.FILESMAN]WRRPT.FOR;1 copied to _$3$MUA2:[]WRRPT.FOR;1 (188 records)
%COPY-S-NEWFILES, 51 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.LOGS]

Directory $2$DUA58:[ROMLIB.LOGS]
CONCCMP2.LOG;1          20/21      24-JAN-1991 00:00:00.00
CRTFLS3.LOG;1           23/24      16-JAN-1991 00:00:00.00
PFCMP.LOG;1             25/27      21-JAN-1991 00:00:00.00
Total of 3 files, 68/72 blocks.
$ COPY / LOG MET58:[ROMLIB.LOGS]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.LOGS]CONCCMP2.LOG;1 copied to _$3$MUA2:[]CONCCMP2.LOG;1 (202 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.LOGS]CRTFLS3.LOG;1 copied to _$3$MUA2:[]CRTFLS3.LOG;1 (395 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.LOGS]PFCMP.LOG;1 copied to _$3$MUA2:[]PFCMP.LOG;1 (271 records)
%COPY-S-NEWFILES, 3 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.ROMNET]

Directory $2$DUA58:[ROMLIB.ROMNET]
REGION.EXT;1             1/3       23-MAY-1989 10:09:22.33
REGPRM.EXT;1            20/21      30-NOV-1988 16:02:48.41
Total of 2 files, 21/24 blocks.
$ COPY / LOG MET58:[ROMLIB.ROMNET]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROMNET]REGION.EXT;1 copied to _$3$MUA2:[]REGION.EXT;1 (15 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROMNET]REGPRM.EXT;1 copied to _$3$MUA2:[]REGPRM.EXT;1 (174 records)
%COPY-S-NEWFILES, 2 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.ROXAN]

Directory $2$DUA58:[ROMLIB.ROXAN]
ADDCNC.FOR;2              2/3        5-JUL-1989 00:00:00.00
ADIFCN.FOR;3              2/3        5-NOV-1990 00:00:00.00
ANDFCN.FOR;5              2/3        5-NOV-1990 00:00:00.00
BLKDAT.FOR;7              8/9        5-NOV-1990 00:00:00.00
CLOCK1.FOR;2              4/6        5-NOV-1990 00:00:00.00
CN2VAX.COM;15             4/6       23-JAN-1991 00:00:00.00
CNCSTAT.FOR;9             6/6       24-JAN-1991 00:00:00.00
CNGRID.DFL;5              1/3       23-JAN-1991 00:00:00.00
CNGRID.FOR;8              8/9        5-NOV-1990 00:00:00.00
CNGRID.LNK;1              4/6       24-JAN-1991 00:00:00.00
CNGRIDX1.COM;10           3/3       24-JAN-1991 00:00:00.00
CNHDBF.EXT;2              1/3        6-APR-1988 00:00:00.00
CONCCMP.DFL;4             2/3       24-JAN-1991 00:00:00.00
CONCCMP.FOR;14           47/48      24-JAN-1991 00:00:00.00
CONCCMP.LNK;1             7/9       24-JAN-1991 00:00:00.00
CONCCMP.MAKE;4            5/6       23-JAN-1991 00:00:00.00
CONCCMP1.COM;1            2/3       24-JAN-1991 00:00:00.00
CONCCMP2.COM;7            4/6       24-JAN-1991 00:00:00.00
COPYCNC.FOR;2             2/3       30-NOV-1990 00:00:00.00
DFNRMS.FOR;9              3/3        5-NOV-1990 00:00:00.00
DIFCNC.FOR;2              2/3        5-JUL-1989 00:00:00.00
DIMANL.EXT;4              2/3        3-NOV-1990 00:00:00.00
DTF_TRANS.COM;3           1/3       23-JAN-1991 00:00:00.00
EXWST.FOR;1               3/3        2-JAN-1991 00:00:00.00
GETMENU.FOR;1            11/12      15-AUG-1990 00:00:00.00
GETNUM.FOR;1             11/12      15-AUG-1990 00:00:00.00
HDCONC.EXT;3              8/9        5-JUL-1989 00:00:00.00
HDINCN.EXT;2              6/6       12-DEC-1988 00:00:00.00
HDRCON.FOR;6              5/6        5-NOV-1990 00:00:00.00
LEN2.FOR;3                3/3       10-AUG-1990 00:00:00.00
LEVNMS.EXT;2              1/3       15-JUL-1986 00:00:00.00
MAKGRD.FOR;6              8/9        5-NOV-1990 00:00:00.00
MAKMAP.FOR;2              6/6        5-JUL-1989 00:00:00.00
MAXCNC.FOR;2              2/3        5-JUL-1989 00:00:00.00
MAXPRM.EXT;2              1/3       15-JUN-1989 00:00:00.00
MODELS.EXT;2              1/3        2-NOV-1990 00:00:00.00
NRDFAV.FOR;2              2/3        5-JUL-1989 00:00:00.00
NRDFCN.FOR;2              2/3        5-JUL-1989 00:00:00.00
PARMFL.EXT;2              3/3       18-FEB-1988 00:00:00.00
RUNDAT.EXT;2              1/3        2-JUL-1986 00:00:00.00
SLECTR.FOR;6             61/63       5-NOV-1990 00:00:00.00
TIMCON.FOR;6              4/6        5-NOV-1990 00:00:00.00
TPTANL.EXT;2              2/3       12-JAN-1987 00:00:00.00
UNTANL.EXT;2              1/3       28-OCT-1988 00:00:00.00
Total of 44 files, 264/315 blocks.
$ COPY / LOG MET58:[ROMLIB.ROXAN]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]ADDCNC.FOR;2 copied to _$3$MUA2:[]ADDCNC.FOR;2 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]ADIFCN.FOR;3 copied to _$3$MUA2:[]ADIFCN.FOR;3 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]ANDFCN.FOR;5 copied to _$3$MUA2:[]ANDFCN.FOR;5 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]BLKDAT.FOR;7 copied to _$3$MUA2:[]BLKDAT.FOR;7 (106 records)
```

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%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CLOCK1.FOR;2 copied to _$3$MUA2:[]CLOCK1.FOR;2 (69 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CN2VAX.COM;15 copied to _$3$MUA2:[]CN2VAX.COM;15 (53 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNCSTAT.FOR;9 copied to _$3$MUA2:[]CNCSTAT.FOR;9 (116 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNGRID.DFL;5 copied to _$3$MUA2:[]CNGRID.DFL;5 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNGRID.FOR;8 copied to _$3$MUA2:[]CNGRID.FOR;8 (127 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNGRID.LNK;1 copied to _$3$MUA2:[]CNGRID.LNK;1 (38 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNGRIDX1.COM;10 copied to _$3$MUA2:[]CNGRIDX1.COM;10 (33 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CNHDBF.EXT;2 copied to _$3$MUA2:[]CNHDBF.EXT;2 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP.DFL;4 copied to _$3$MUA2:[]CONCCMP.DFL;4 (29 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP.FOR;14 copied to _$3$MUA2:[]CONCCMP.FOR;14 (655 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP.LNK;1 copied to _$3$MUA2:[]CONCCMP.LNK;1 (68 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP.MAKE;4 copied to _$3$MUA2:[]CONCCMP.MAKE;4 (97 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP1.COM;1 copied to _$3$MUA2:[]CONCCMP1.COM;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]CONCCMP2.COM;7 copied to _$3$MUA2:[]CONCCMP2.COM;7 (47 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]COPYCNC.FOR;2 copied to _$3$MUA2:[]COPYCNC.FOR;2 (27 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]DFNRMS.FOR;9 copied to _$3$MUA2:[]DFNRMS.FOR;9 (41 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]DIFCNC.FOR;2 copied to _$3$MUA2:[]DIFCNC.FOR;2 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]DIMANL.EXT;4 copied to _$3$MUA2:[]DIMANL.EXT;4 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]DTF_TRANS.COM;3 copied to _$3$MUA2:[]DTF_TRANS.COM;3 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]EXWST.FOR;1 copied to _$3$MUA2:[]EXWST.FOR;1 (56 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]GETMENU.FOR;1 copied to _$3$MUA2:[]GETMENU.FOR;1 (191 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]GETNUM.FOR;1 copied to _$3$MUA2:[]GETNUM.FOR;1 (182 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]HDCONC.EXT;3 copied to _$3$MUA2:[]HDCONC.EXT;3 (75 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]HDINCN.EXT;2 copied to _$3$MUA2:[]HDINCN.EXT;2 (51 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]HDRCON.FOR;6 copied to _$3$MUA2:[]HDRCON.FOR;6 (83 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]LEN2.FOR;3 copied to _$3$MUA2:[]LEN2.FOR;3 (61 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]LEVNMS.EXT;2 copied to _$3$MUA2:[]LEVNMS.EXT;2 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]MAKGRD.FOR;6 copied to _$3$MUA2:[]MAKGRD.FOR;6 (116 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]MAKMAP.FOR;2 copied to _$3$MUA2:[]MAKMAP.FOR;2 (84 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]MAXCNC.FOR;2 copied to _$3$MUA2:[]MAXCNC.FOR;2 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]MAXPRM.EXT;2 copied to _$3$MUA2:[]MAXPRM.EXT;2 (12 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]MODELS.EXT;2 copied to _$3$MUA2:[]MODELS.EXT;2 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]NRDFAV.FOR;2 copied to _$3$MUA2:[]NRDFAV.FOR;2 (23 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]NRDFCN.FOR;2 copied to _$3$MUA2:[]NRDFCN.FOR;2 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]PARMFL.EXT;2 copied to _$3$MUA2:[]PARMFL.EXT;2 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]RUNDAT.EXT;2 copied to _$3$MUA2:[]RUNDAT.EXT;2 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]SLECTR.FOR;6 copied to _$3$MUA2:[]SLECTR.FOR;6 (1050 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]TIMCON.FOR;6 copied to _$3$MUA2:[]TIMCON.FOR;6 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]TPTANL.EXT;2 copied to _$3$MUA2:[]TPTANL.EXT;2 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.ROXAN]UNTANL.EXT;2 copied to _$3$MUA2:[]UNTANL.EXT;2 (9 records)
%COPY-S-NEWFILES, 44 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.RPROCS]

Directory $2$DUA58:[ROMLIB.RPROCS]
CMPGRID.DFL;1          3/3      21-JAN-1991 00:00:00.00
CMPGRID.FOR;1         35/36     21-JAN-1991 00:00:00.00
CMPGRID.LNK;1          6/6      21-JAN-1991 00:00:00.00
GRDIF.FOR;1           11/12     14-JAN-1989 00:00:00.00
PFCMP.COM;1            2/3      22-JAN-1991 00:00:00.00
Total of 5 files, 57/60 blocks.
$ COPY / LOG MET58:[ROMLIB.RPROCS]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.RPROCS]CMPGRID.DFL;1 copied to _$3$MUA2:[]CMPGRID.DFL;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.RPROCS]CMPGRID.FOR;1 copied to _$3$MUA2:[]CMPGRID.FOR;1 (538 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.RPROCS]CMPGRID.LNK;1 copied to _$3$MUA2:[]CMPGRID.LNK;1 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.RPROCS]GRDIF.FOR;1 copied to _$3$MUA2:[]GRDIF.FOR;1 (191 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.RPROCS]PFCMP.COM;1 copied to _$3$MUA2:[]PFCMP.COM;1 (26 records)
%COPY-S-NEWFILES, 5 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.UTILIO]

Directory $2$DUA58:[ROMLIB.UTILIO]
ACOMPB.FOR;1          4/6      26-MAY-1988 14:10:43.48
ADATE.FOR;1           4/6      26-MAY-1988 14:10:46.84
AGRID1.FOR;1         25/27     30-AUG-1988 12:11:28.12
AGRID2.FOR;1         26/27     30-AUG-1988 12:11:47.48
AGRID3.FOR;1         31/33     30-AUG-1988 12:12:06.76
ATAPE.FOR;1          12/12     26-MAY-1988 14:10:48.64
BDATE.FOR;1           3/3      26-MAY-1988 14:10:50.19
BGRID1.FOR;1         37/39     19-OCT-1988 07:56:47.01
BGRID2.FOR;1         43/45     19-OCT-1988 07:56:37.84
BGRID3.FOR;1         43/45     19-OCT-1988 07:59:44.61
CELL0.FOR;1          34/36      9-AUG-1988 12:32:28.44
CELL1.FOR;1           6/6       9-JUN-1988 11:01:45.95
CELL2.FOR;1           5/6       9-JUN-1988 11:06:21.36
CELL3.FOR;1           2/3      26-MAY-1988 14:11:04.23
CELLAR.FOR;1          4/6       9-JUN-1988 11:07:34.87
CHAIN2.FOR;1         12/12     26-MAY-1988 14:11:08.94
CLOCK1.FOR;1          5/6      30-AUG-1988 13:23:01.36
CLOCK2.FOR;1          5/6      30-AUG-1988 14:50:13.05
CLRHDR.FOR;1          6/6      26-OCT-1988 09:42:40.74
COMBS.EXT;1           1/3      24-JUN-1988 14:00:50.52
CONCS.EXT;1           1/3       1-NOV-1988 13:08:34.55
CPUTOT.FOR;1          5/6       8-JUL-1988 10:46:57.99
DATEHR.FOR;1          4/6      26-MAY-1988 14:11:17.73
DATHR2.FOR;1          4/6      26-MAY-1988 14:11:19.36
DATHR3.FOR;1          6/6      26-MAY-1988 14:11:21.02
DATHR4.FOR;1          5/6      26-MAY-1988 14:11:23.65
DATHR5.FOR;1          4/6      26-MAY-1988 14:11:25.38
DATHR6.FOR;1          4/6      25-JUL-1988 16:10:30.27
DATIME.EXT;1          2/3       5-APR-1989 09:34:51.08
DATTIM.FOR;1          4/6       8-NOV-1988 14:12:43.39
DIRREC.EXT;1          4/6       9-JUN-1988 16:04:05.49
ERROUT.FOR;1          2/3      31-AUG-1988 10:07:47.37
EXSTAT.EXT;1          2/3       9-JUL-1990 00:00:00.00
FDIR1.EXT;1           1/3      11-MAY-1988 14:30:39.58
FDIR2.EXT;1           3/3      11-MAY-1988 14:27:45.60
FHEAD1.EXT;1          5/6      11-MAY-1988 12:51:00.74
FHEAD2.EXT;1          6/6       9-JUN-1988 16:05:16.31
FILL.FOR;1            4/6      26-MAY-1988 14:11:34.27
FLNAM2.FOR;1          2/3      26-MAY-1988 14:11:36.10
FLNAM3.FOR;1          2/3      26-MAY-1988 14:11:37.81
FLSMRY.FOR;1          5/6       6-JUL-1988 14:51:36.42
FRACT.EXT;1           1/3       2-NOV-1988 13:09:32.11
FSKIP1.FOR;1          9/9      26-MAY-1988 14:11:43.06
FSTAT1.FOR;1         10/12      9-JUN-1988 17:46:41.01
GETMEM.FOR;1          4/6      27-MAY-1988 11:10:05.84
GETMSG.FOR;1          5/6       8-JUL-1988 12:02:13.26
GETYN.FOR;1           5/6       9-AUG-1988 12:14:16.99
GMTLCL.FOR;1          3/3      26-MAY-1988 14:11:50.29
GPRIME.FOR;1         22/24      8-NOV-1988 15:11:48.35
GRDDEF.EXT;1          3/3      11-MAY-1988 13:55:30.68
```

GREG.FOR;1	3/3	26-MAY-1988	14:11:51.87
HNDLSV.EXT;1	3/3	8-JUL-1988	13:14:20.21
IASSGN.FOR;1	3/3	26-MAY-1988	14:12:02.76
IBLKR.FOR;1	3/3	26-MAY-1988	14:12:04.48
INDEX1.FOR;1	3/3	26-MAY-1988	14:12:07.91
INDEX2.FOR;1	3/3	8-JUL-1988	12:09:14.90
IOCL.FOR;1	2/3	15-JUN-1988	16:45:04.06
IOERR.FOR;1	3/3	26-MAY-1988	14:12:13.00
IOUNIT.EXT;1	1/3	1-NOV-1988	13:03:03.12
JFILE1.FOR;1	5/6	8-JUN-1988	12:00:43.07
JFILE2.FOR;1	8/9	26-MAY-1988	14:12:16.62
JFILE3.FOR;1	5/6	26-MAY-1988	14:12:18.61
JFILE4.FOR;1	9/9	26-MAY-1988	14:12:20.78
JFILE5.FOR;1	6/6	8-NOV-1988	14:12:45.20
JFILE6.FOR;1	9/9	24-AUG-1989	09:48:54.63
JFILEX.FOR;1	5/6	11-AUG-1988	07:46:30.31
JHOUR1.FOR;1	4/6	26-MAY-1988	14:12:23.82
JULIAN.FOR;1	2/3	26-MAY-1988	14:12:26.39
JUNIT.FOR;1	5/6	26-MAY-1988	14:12:28.28
KDAY.FOR;1	2/3	26-MAY-1988	14:12:30.33
LEN1.FOR;1	3/3	26-MAY-1988	14:12:37.08
MATCH.FOR;1	3/3	26-MAY-1988	14:12:41.06
MOVE4.FOR;1	2/3	26-MAY-1988	14:12:45.07
NEXTHR.FOR;1	4/6	3-JUN-1988	10:48:18.47
OPDIR2.FOR;1	8/9	26-MAY-1988	14:12:48.92
OPEN2.FOR;1	14/15	26-MAY-1988	14:12:51.20
PARAM.EXT;1	1/3	27-OCT-1988	15:22:16.56
PARMS.EXT;1	4/6	9-JUN-1988	17:21:19.86
PI.EXT;1	3/3	11-MAY-1988	14:00:56.19
POINTS.FOR;1	25/27	17-AUG-1988	09:07:10.61
PQ1CB42.FOR;1	20/21	8-NOV-1988	15:11:50.29
PQCOEFCB42.FOR;1	8/9	8-NOV-1988	15:11:51.91
PRID.EXT;1	2/3	11-MAY-1988	13:33:33.14
PROGID.FOR;1	5/6	26-MAY-1988	14:12:57.00
RATEDCB42.FOR;1	15/15	8-NOV-1988	15:11:53.49
RDDIR1.FOR;1	8/9	15-JUN-1988	17:45:44.81
RDFHD1.FOR;1	4/6	26-MAY-1988	14:13:03.12
RDFHD2.FOR;1	6/6	9-JUN-1988	16:07:58.98
RDFILE.FOR;1	2/3	26-MAY-1988	14:13:07.38
RDFT1.FOR;1	12/12	8-JUL-1988	12:23:15.47
RDFT2.FOR;1	12/12	8-JUL-1988	12:26:05.59
RDFT3.FOR;1	12/12	8-JUL-1988	12:27:20.72
RDFT4.FOR;1	12/12	26-MAY-1988	14:13:21.73
RDFT5.FOR;1	14/15	26-MAY-1988	14:13:24.41
RDREC.FOR;1	9/9	28-SEP-1988	11:24:40.92
RDSRF1.FOR;1	15/15	11-AUG-1988	13:10:34.24
RDTAPE.FOR;1	9/9	26-MAY-1988	14:13:32.18
RDWNDO.FOR;1	12/12	11-AUG-1988	13:11:55.56
REMBLK.FOR;1	4/6	26-MAY-1988	14:13:36.49
REORDR.FOR;1	5/6	26-MAY-1988	14:13:38.48
SOLAR.FOR;1	11/12	28-JUN-1988	12:04:22.90
SOLELV.FOR;1	6/6	26-MAY-1988	14:13:47.31
SORT4.FOR;1	10/12	7-JUL-1988	15:14:13.89
TOTAL.FOR;1	2/3	8-NOV-1988	15:11:54.96
TRNLOG.FOR;1	9/9	8-JUL-1988	13:09:48.12

```
TRNSLT.FOR;1              16/18      13-JUL-1989 14:29:07.30
WRCHAR.FOR;1               2/3       31-AUG-1988 10:09:27.07
WRFILE.FOR;1               2/3       26-MAY-1988 14:14:10.49
WRFT1.FOR;1               12/12       8-JUL-1988 13:19:46.09
WRFT3.FOR;1               13/15       8-JUL-1988 13:22:26.74
WRFT4.FOR;1               12/12      26-MAY-1988 14:14:20.45
WRFT5.FOR;1               14/15      26-MAY-1988 14:14:22.80
WRREC.FOR;1                9/9       10-JUN-1988 18:52:27.22
XATAN2.FOR;1               4/6       26-MAY-1988 14:14:30.43
Total of 114 files, 904/1014 blocks.
$ COPY / LOG MET58:[ROMLIB.UTILIO]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]ACOMPB.FOR;1 copied to _$3$MUA2:[]ACOMPB.FOR;1 (71 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]ADATE.FOR;1 copied to _$3$MUA2:[]ADATE.FOR;1 (76 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]AGRID1.FOR;1 copied to _$3$MUA2:[]AGRID1.FOR;1 (368 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]AGRID2.FOR;1 copied to _$3$MUA2:[]AGRID2.FOR;1 (386 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]AGRID3.FOR;1 copied to _$3$MUA2:[]AGRID3.FOR;1 (442 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]ATAPE.FOR;1 copied to _$3$MUA2:[]ATAPE.FOR;1 (253 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]BDATE.FOR;1 copied to _$3$MUA2:[]BDATE.FOR;1 (57 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]BGRID1.FOR;1 copied to _$3$MUA2:[]BGRID1.FOR;1 (539 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]BGRID2.FOR;1 copied to _$3$MUA2:[]BGRID2.FOR;1 (613 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]BGRID3.FOR;1 copied to _$3$MUA2:[]BGRID3.FOR;1 (633 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CELL0.FOR;1 copied to _$3$MUA2:[]CELL0.FOR;1 (427 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CELL1.FOR;1 copied to _$3$MUA2:[]CELL1.FOR;1 (89 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CELL2.FOR;1 copied to _$3$MUA2:[]CELL2.FOR;1 (72 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CELL3.FOR;1 copied to _$3$MUA2:[]CELL3.FOR;1 (44 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CELLAR.FOR;1 copied to _$3$MUA2:[]CELLAR.FOR;1 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CHAIN2.FOR;1 copied to _$3$MUA2:[]CHAIN2.FOR;1 (236 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CLOCK1.FOR;1 copied to _$3$MUA2:[]CLOCK1.FOR;1 (78 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CLOCK2.FOR;1 copied to _$3$MUA2:[]CLOCK2.FOR;1 (86 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CLRHDR.FOR;1 copied to _$3$MUA2:[]CLRHDR.FOR;1 (110 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]COMBS.EXT;1 copied to _$3$MUA2:[]COMBS.EXT;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CONCS.EXT;1 copied to _$3$MUA2:[]CONCS.EXT;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]CPUTOT.FOR;1 copied to _$3$MUA2:[]CPUTOT.FOR;1 (94 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATEHR.FOR;1 copied to _$3$MUA2:[]DATEHR.FOR;1 (80 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATHR2.FOR;1 copied to _$3$MUA2:[]DATHR2.FOR;1 (79 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATHR3.FOR;1 copied to _$3$MUA2:[]DATHR3.FOR;1 (130 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATHR4.FOR;1 copied to _$3$MUA2:[]DATHR4.FOR;1 (77 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATHR5.FOR;1 copied to _$3$MUA2:[]DATHR5.FOR;1 (86 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATHR6.FOR;1 copied to _$3$MUA2:[]DATHR6.FOR;1 (64 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATIME.EXT;1 copied to _$3$MUA2:[]DATIME.EXT;1 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DATTIM.FOR;1 copied to _$3$MUA2:[]DATTIM.FOR;1 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]DIRREC.EXT;1 copied to _$3$MUA2:[]DIRREC.EXT;1 (38 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]ERROUT.FOR;1 copied to _$3$MUA2:[]ERROUT.FOR;1 (38 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]EXSTAT.EXT;1 copied to _$3$MUA2:[]EXSTAT.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FDIR1.EXT;1 copied to _$3$MUA2:[]FDIR1.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FDIR2.EXT;1 copied to _$3$MUA2:[]FDIR2.EXT;1 (35 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FHEAD1.EXT;1 copied to _$3$MUA2:[]FHEAD1.EXT;1 (51 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FHEAD2.EXT;1 copied to _$3$MUA2:[]FHEAD2.EXT;1 (68 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FILL.FOR;1 copied to _$3$MUA2:[]FILL.FOR;1 (80 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FLNAM2.FOR;1 copied to _$3$MUA2:[]FLNAM2.FOR;1 (39 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FLNAM3.FOR;1 copied to _$3$MUA2:[]FLNAM3.FOR;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FLSMRY.FOR;1 copied to _$3$MUA2:[]FLSMRY.FOR;1 (98 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FRACT.EXT;1 copied to _$3$MUA2:[]FRACT.EXT;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FSKIP1.FOR;1 copied to _$3$MUA2:[]FSKIP1.FOR;1 (166 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]FSTAT1.FOR;1 copied to _$3$MUA2:[]FSTAT1.FOR;1 (183 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GETMEM.FOR;1 copied to _$3$MUA2:[]GETMEM.FOR;1 (70 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GETMSG.FOR;1 copied to _$3$MUA2:[]GETMSG.FOR;1 (77 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GETYN.FOR;1 copied to _$3$MUA2:[]GETYN.FOR;1 (94 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GMTLCL.FOR;1 copied to _$3$MUA2:[]GMTLCL.FOR;1 (46 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GPRIME.FOR;1 copied to _$3$MUA2:[]GPRIME.FOR;1 (382 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GRDDEF.EXT;1 copied to _$3$MUA2:[]GRDDEF.EXT;1 (35 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]GREG.FOR;1 copied to _$3$MUA2:[]GREG.FOR;1 (47 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]HNDLSV.EXT;1 copied to _$3$MUA2:[]HNDLSV.EXT;1 (26 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]IASSGN.FOR;1 copied to _$3$MUA2:[]IASSGN.FOR;1 (65 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]IBLKR.FOR;1 copied to _$3$MUA2:[]IBLKR.FOR;1 (50 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]INDEX1.FOR;1 copied to _$3$MUA2:[]INDEX1.FOR;1 (52 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]INDEX2.FOR;1 copied to _$3$MUA2:[]INDEX2.FOR;1 (54 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]IOCL.FOR;1 copied to _$3$MUA2:[]IOCL.FOR;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]IOERR.FOR;1 copied to _$3$MUA2:[]IOERR.FOR;1 (48 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]IOUNIT.EXT;1 copied to _$3$MUA2:[]IOUNIT.EXT;1 (8 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE1.FOR;1 copied to _$3$MUA2:[]JFILE1.FOR;1 (99 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE2.FOR;1 copied to _$3$MUA2:[]JFILE2.FOR;1 (136 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE3.FOR;1 copied to _$3$MUA2:[]JFILE3.FOR;1 (92 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE4.FOR;1 copied to _$3$MUA2:[]JFILE4.FOR;1 (136 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE5.FOR;1 copied to _$3$MUA2:[]JFILE5.FOR;1 (100 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILE6.FOR;1 copied to _$3$MUA2:[]JFILE6.FOR;1 (139 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JFILEX.FOR;1 copied to _$3$MUA2:[]JFILEX.FOR;1 (80 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JHOUR1.FOR;1 copied to _$3$MUA2:[]JHOUR1.FOR;1 (65 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JULIAN.FOR;1 copied to _$3$MUA2:[]JULIAN.FOR;1 (45 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]JUNIT.FOR;1 copied to _$3$MUA2:[]JUNIT.FOR;1 (98 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]KDAY.FOR;1 copied to _$3$MUA2:[]KDAY.FOR;1 (39 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]LEN1.FOR;1 copied to _$3$MUA2:[]LEN1.FOR;1 (62 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]MATCH.FOR;1 copied to _$3$MUA2:[]MATCH.FOR;1 (45 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]MOVE4.FOR;1 copied to _$3$MUA2:[]MOVE4.FOR;1 (44 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]NEXTHR.FOR;1 copied to _$3$MUA2:[]NEXTHR.FOR;1 (70 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]OPDIR2.FOR;1 copied to _$3$MUA2:[]OPDIR2.FOR;1 (136 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]OPEN2.FOR;1 copied to _$3$MUA2:[]OPEN2.FOR;1 (224 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PARAM.EXT;1 copied to _$3$MUA2:[]PARAM.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PARMS.EXT;1 copied to _$3$MUA2:[]PARMS.EXT;1 (46 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PI.EXT;1 copied to _$3$MUA2:[]PI.EXT;1 (26 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]POINTS.FOR;1 copied to _$3$MUA2:[]POINTS.FOR;1 (360 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PQ1CB42.FOR;1 copied to _$3$MUA2:[]PQ1CB42.FOR;1 (190 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PQCOEFCB42.FOR;1 copied to _$3$MUA2:[]PQCOEFCB42.FOR;1 (116 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PRID.EXT;1 copied to _$3$MUA2:[]PRID.EXT;1 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]PROGID.FOR;1 copied to _$3$MUA2:[]PROGID.FOR;1 (88 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RATEDCB42.FOR;1 copied to _$3$MUA2:[]RATEDCB42.FOR;1 (112 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDDIR1.FOR;1 copied to _$3$MUA2:[]RDDIR1.FOR;1 (141 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFHD1.FOR;1 copied to _$3$MUA2:[]RDFHD1.FOR;1 (75 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFHD2.FOR;1 copied to _$3$MUA2:[]RDFHD2.FOR;1 (83 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFILE.FOR;1 copied to _$3$MUA2:[]RDFILE.FOR;1 (41 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFT1.FOR;1 copied to _$3$MUA2:[]RDFT1.FOR;1 (183 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFT2.FOR;1 copied to _$3$MUA2:[]RDFT2.FOR;1 (183 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFT3.FOR;1 copied to _$3$MUA2:[]RDFT3.FOR;1 (184 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFT4.FOR;1 copied to _$3$MUA2:[]RDFT4.FOR;1 (181 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDFT5.FOR;1 copied to _$3$MUA2:[]RDFT5.FOR;1 (207 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDREC.FOR;1 copied to _$3$MUA2:[]RDREC.FOR;1 (155 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDSRF1.FOR;1 copied to _$3$MUA2:[]RDSRF1.FOR;1 (259 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDTAPE.FOR;1 copied to _$3$MUA2:[]RDTAPE.FOR;1 (168 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]RDWNDO.FOR;1 copied to _$3$MUA2:[]RDWNDO.FOR;1 (184 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]REMBLK.FOR;1 copied to _$3$MUA2:[]REMBLK.FOR;1 (75 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]REORDR.FOR;1 copied to _$3$MUA2:[]REORDR.FOR;1 (88 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]SOLAR.FOR;1 copied to _$3$MUA2:[]SOLAR.FOR;1 (201 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]SOLELV.FOR;1 copied to _$3$MUA2:[]SOLELV.FOR;1 (94 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]SORT4.FOR;1 copied to _$3$MUA2:[]SORT4.FOR;1 (186 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]TOTAL.FOR;1 copied to _$3$MUA2:[]TOTAL.FOR;1 (45 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]TRNLOG.FOR;1 copied to _$3$MUA2:[]TRNLOG.FOR;1 (144 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]TRNSLT.FOR;1 copied to _$3$MUA2:[]TRNSLT.FOR;1 (210 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRCHAR.FOR;1 copied to _$3$MUA2:[]WRCHAR.FOR;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRFILE.FOR;1 copied to _$3$MUA2:[]WRFILE.FOR;1 (41 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRFT1.FOR;1 copied to _$3$MUA2:[]WRFT1.FOR;1 (195 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRFT3.FOR;1 copied to _$3$MUA2:[]WRFT3.FOR;1 (196 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRFT4.FOR;1 copied to _$3$MUA2:[]WRFT4.FOR;1 (192 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRFT5.FOR;1 copied to _$3$MUA2:[]WRFT5.FOR;1 (217 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]WRREC.FOR;1 copied to _$3$MUA2:[]WRREC.FOR;1 (149 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.UTILIO]XATAN2.FOR;1 copied to _$3$MUA2:[]XATAN2.FOR;1 (73 records)
%COPY-S-NEWFILES, 114 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROM2_1.ROMNET]

Directory $2$DUA58:[ROM2_1.ROMNET]
CR14.COM;1                2/3       11-JAN-1991 00:00:00.00
CR1IN2.DAT;1             19/21      27-MAR-1990 00:00:00.00
CR4IN2.DAT;1            139/141     16-NOV-1990 00:00:00.00
CR6.COM;1                 2/3       11-JAN-1991 00:00:00.00
CR6.CPR;1                 1/3       15-MAY-1990 00:00:00.00
CRTFLS.COM;4              2/3       22-JAN-1991 00:00:00.00
DIRECT2.DAT;1           723/723     11-JAN-1991 00:00:00.00
PROGDB1.DAT;1            98/99      11-JAN-1991 00:00:00.00
PROGDB2.DAT;1           165/165     11-JAN-1991 00:00:00.00
PROGDB3.DAT;1           571/573     11-JAN-1991 00:00:00.00
PROGDB4.DAT;1           197/198     11-JAN-1991 00:00:00.00
PROGDB5.DAT;1             9/9       27-MAR-1990 00:00:00.00
Total of 12 files, 1928/1941 blocks.
$ COPY / LOG MET58:[ROM2_1.ROMNET]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CR14.COM;1 copied to _$3$MUA2:[]CR14.COM;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CR1IN2.DAT;1 copied to _$3$MUA2:[]CR1IN2.DAT;1 (631 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CR4IN2.DAT;1 copied to _$3$MUA2:[]CR4IN2.DAT;1 (1840 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CR6.COM;1 copied to _$3$MUA2:[]CR6.COM;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CR6.CPR;1 copied to _$3$MUA2:[]CR6.CPR;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]CRTFLS.COM;4 copied to _$3$MUA2:[]CRTFLS.COM;4 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]DIRECT2.DAT;1 copied to _$3$MUA2:[]DIRECT2.DAT;1 (201 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]PROGDB1.DAT;1 copied to _$3$MUA2:[]PROGDB1.DAT;1 (26 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]PROGDB2.DAT;1 copied to _$3$MUA2:[]PROGDB2.DAT;1 (43 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]PROGDB3.DAT;1 copied to _$3$MUA2:[]PROGDB3.DAT;1 (146 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]PROGDB4.DAT;1 copied to _$3$MUA2:[]PROGDB4.DAT;1 (350 records)
%COPY-S-COPIED, $2$DUA58:[ROM2_1.ROMNET]PROGDB5.DAT;1 copied to _$3$MUA2:[]PROGDB5.DAT;1 (134 records)
%COPY-S-NEWFILES, 12 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[FOREMAN.FV1050X]

Directory $2$DUA58:[FOREMAN.FV1050X]
P06G.CPR;2                1/3       11-JUN-1990 00:00:00.00
P06G.LOG;1               18/18      15-JAN-1991 00:00:00.00
P06GX1.COM;1              2/3       15-JAN-1991 00:00:00.00
P13G.CPR;2                1/3       11-JUN-1990 00:00:00.00
P13G.LOG;1               10/12      15-JAN-1991 00:00:00.00
P13GX1.COM;1              1/3       15-JAN-1991 00:00:00.00
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P25G.CPR;2                 1/3       11-JUN-1990 00:00:00.00
P25G.LOG;1                11/12      15-JAN-1991 00:00:00.00
P25GX1.COM;1               1/3       15-JAN-1991 00:00:00.00
Total of 9 files, 46/60 blocks.
$ COPY / LOG MET58:[FOREMAN.FV1050X]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P06G.CPR;2 copied to _$3$MUA2:[]P06G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P06G.LOG;1 copied to _$3$MUA2:[]P06G.LOG;1 (206 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P06GX1.COM;1 copied to _$3$MUA2:[]P06GX1.COM;1 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P13G.CPR;2 copied to _$3$MUA2:[]P13G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P13G.LOG;1 copied to _$3$MUA2:[]P13G.LOG;1 (123 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P13GX1.COM;1 copied to _$3$MUA2:[]P13GX1.COM;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P25G.CPR;2 copied to _$3$MUA2:[]P25G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P25G.LOG;1 copied to _$3$MUA2:[]P25G.LOG;1 (129 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1050X]P25GX1.COM;1 copied to _$3$MUA2:[]P25GX1.COM;1 (14 records)
%COPY-S-NEWFILES, 9 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[FOREMAN.FV1871X]

Directory $2$DUA58:[FOREMAN.FV1871X]
P01G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P01G.LOG;1                21/21      16-JAN-1991 00:00:00.00
P01GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P03G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P03G.LOG;1                47/48      16-JAN-1991 00:00:00.00
P03GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P04G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P04G.LOG;1               208/210     16-JAN-1991 00:00:00.00
P04GX1.COM;3               3/3       16-JAN-1991 00:00:00.00
P05G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P05G.LOG;1                88/90      16-JAN-1991 00:00:00.00
P05GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P07G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P07G.LOG;1               228/228     17-JAN-1991 00:00:00.00
P07GX1.COM;2               3/3       16-JAN-1991 00:00:00.00
P08G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P08G.LOG;1               418/420     17-JAN-1991 00:00:00.00
P08GX1.COM;2               3/3       16-JAN-1991 00:00:00.00
P09G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P09G.LOG;1                48/48      17-JAN-1991 00:00:00.00
P09GX1.COM;2               4/6       16-JAN-1991 00:00:00.00
P11G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P11G.LOG;1               278/279     18-JAN-1991 00:00:00.00
P11GX1.COM;2               4/6       16-JAN-1991 00:00:00.00
P12G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P12G.LOG;1               166/168     18-JAN-1991 00:00:00.00
P12GX1.COM;2               6/6       16-JAN-1991 00:00:00.00
P15G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P15G.LOG;1                42/42      18-JAN-1991 00:00:00.00
P15GX1.COM;2               3/3       16-JAN-1991 00:00:00.00
P16G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P16G.LOG;1                29/30      16-JAN-1991 00:00:00.00
P16GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P17G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P17G.LOG;1                87/87      18-JAN-1991 00:00:00.00
P17GX1.COM;2               3/3       16-JAN-1991 00:00:00.00
P19G.CPR;3                 1/3       16-JAN-1991 00:00:00.00
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P19G.LOG;1                28/30      16-JAN-1991 00:00:00.00
P19GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P23G.CPR;2                 1/3       16-JAN-1991 00:00:00.00
P23G.LOG;1                61/63      16-JAN-1991 00:00:00.00
P23GX1.COM;2               2/3       16-JAN-1991 00:00:00.00
P29G.CPR;2                 2/3       17-JAN-1991 00:00:00.00
P29G.LOG;1                70/72      18-JAN-1991 00:00:00.00
P29GX1.COM;2               5/6       16-JAN-1991 00:00:00.00
P32G.CPR;2                 1/3       17-JAN-1991 00:00:00.00
P32G.LOG;1                32/33      18-JAN-1991 00:00:00.00
P32GX1.COM;2               3/3       16-JAN-1991 00:00:00.00
PFMFCOPY.COM;3             7/9       18-JAN-1991 00:00:00.00
PFMFCOPY.LOG;1            74/75      18-JAN-1991 00:00:00.00
Total of 50 files, 1998/2061 blocks.
$ COPY / LOG MET58:[FOREMAN.FV1871X]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P01G.CPR;2 copied to _$3$MUA2:[]P01G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P01G.LOG;1 copied to _$3$MUA2:[]P01G.LOG;1 (225 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P01GX1.COM;2 copied to _$3$MUA2:[]P01GX1.COM;2 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P03G.CPR;2 copied to _$3$MUA2:[]P03G.CPR;2 (7 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P03G.LOG;1 copied to _$3$MUA2:[]P03G.LOG;1 (623 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P03GX1.COM;2 copied to _$3$MUA2:[]P03GX1.COM;2 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P04G.CPR;2 copied to _$3$MUA2:[]P04G.CPR;2 (7 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P04G.LOG;1 copied to _$3$MUA2:[]P04G.LOG;1 (2815 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P04GX1.COM;3 copied to _$3$MUA2:[]P04GX1.COM;3 (27 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P05G.CPR;2 copied to _$3$MUA2:[]P05G.CPR;2 (2 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P05G.LOG;1 copied to _$3$MUA2:[]P05G.LOG;1 (1880 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P05GX1.COM;2 copied to _$3$MUA2:[]P05GX1.COM;2 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P07G.CPR;2 copied to _$3$MUA2:[]P07G.CPR;2 (3 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P07G.LOG;1 copied to _$3$MUA2:[]P07G.LOG;1 (2030 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P07GX1.COM;2 copied to _$3$MUA2:[]P07GX1.COM;2 (30 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P08G.CPR;2 copied to _$3$MUA2:[]P08G.CPR;2 (2 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P08G.LOG;1 copied to _$3$MUA2:[]P08G.LOG;1 (2737 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P08GX1.COM;2 copied to _$3$MUA2:[]P08GX1.COM;2 (24 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P09G.CPR;2 copied to _$3$MUA2:[]P09G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P09G.LOG;1 copied to _$3$MUA2:[]P09G.LOG;1 (506 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P09GX1.COM;2 copied to _$3$MUA2:[]P09GX1.COM;2 (39 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P11G.CPR;2 copied to _$3$MUA2:[]P11G.CPR;2 (4 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P11G.LOG;1 copied to _$3$MUA2:[]P11G.LOG;1 (2866 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P11GX1.COM;2 copied to _$3$MUA2:[]P11GX1.COM;2 (34 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P12G.CPR;2 copied to _$3$MUA2:[]P12G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P12G.LOG;1 copied to _$3$MUA2:[]P12G.LOG;1 (1263 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P12GX1.COM;2 copied to _$3$MUA2:[]P12GX1.COM;2 (51 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P15G.CPR;2 copied to _$3$MUA2:[]P15G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P15G.LOG;1 copied to _$3$MUA2:[]P15G.LOG;1 (413 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P15GX1.COM;2 copied to _$3$MUA2:[]P15GX1.COM;2 (24 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P16G.CPR;2 copied to _$3$MUA2:[]P16G.CPR;2 (3 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P16G.LOG;1 copied to _$3$MUA2:[]P16G.LOG;1 (401 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P16GX1.COM;2 copied to _$3$MUA2:[]P16GX1.COM;2 (18 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P17G.CPR;2 copied to _$3$MUA2:[]P17G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P17G.LOG;1 copied to _$3$MUA2:[]P17G.LOG;1 (1087 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P17GX1.COM;2 copied to _$3$MUA2:[]P17GX1.COM;2 (27 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P19G.CPR;3 copied to _$3$MUA2:[]P19G.CPR;3 (2 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P19G.LOG;1 copied to _$3$MUA2:[]P19G.LOG;1 (368 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P19GX1.COM;2 copied to _$3$MUA2:[]P19GX1.COM;2 (16 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P23G.CPR;2 copied to _$3$MUA2:[]P23G.CPR;2 (2 records)
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%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P23G.LOG;1 copied to _$3$MUA2:[]P23G.LOG;1 (592 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P23GX1.COM;2 copied to _$3$MUA2:[]P23GX1.COM;2 (17 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P29G.CPR;2 copied to _$3$MUA2:[]P29G.CPR;2 (17 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P29G.LOG;1 copied to _$3$MUA2:[]P29G.LOG;1 (645 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P29GX1.COM;2 copied to _$3$MUA2:[]P29GX1.COM;2 (44 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P32G.CPR;2 copied to _$3$MUA2:[]P32G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P32G.LOG;1 copied to _$3$MUA2:[]P32G.LOG;1 (396 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]P32GX1.COM;2 copied to _$3$MUA2:[]P32GX1.COM;2 (29 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]PFMFCOPY.COM;3 copied to _$3$MUA2:[]PFMFCOPY.COM;3 (118 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1871X]PFMFCOPY.LOG;1 copied to _$3$MUA2:[]PFMFCOPY.LOG;1 (991 records)
%COPY-S-NEWFILES, 50 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[FOREMAN.FV1872X]

Directory $2$DUA58:[FOREMAN.FV1872X]
P02G.CPR;3                1/3       20-JAN-1991 00:00:00.00
P02G.LOG;1               15/15      20-JAN-1991 00:00:00.00
P02GIBM.LOG;2            14/15      23-JAN-1991 00:00:00.00
P02GX1.COM;5              2/3       22-JAN-1991 00:00:00.00
P02GX2.COM;2              2/3       23-JAN-1991 00:00:00.00
P22G.CPR;3                1/3       20-JAN-1991 00:00:00.00
P22G.LOG;1               55/57      20-JAN-1991 00:00:00.00
P22GIBM.LOG;2            53/54      23-JAN-1991 00:00:00.00
P22GX1.COM;6              2/3       22-JAN-1991 00:00:00.00
P22GX2.COM;2              2/3       23-JAN-1991 00:00:00.00
Total of 10 files, 147/159 blocks.
$ COPY / LOG MET58:[FOREMAN.FV1872X]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P02G.CPR;3 copied to _$3$MUA2:[]P02G.CPR;3 (6 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P02G.LOG;1 copied to _$3$MUA2:[]P02G.LOG;1 (176 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P02GIBM.LOG;2 copied to _$3$MUA2:[]P02GIBM.LOG;2 (174 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P02GX1.COM;5 copied to _$3$MUA2:[]P02GX1.COM;5 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P02GX2.COM;2 copied to _$3$MUA2:[]P02GX2.COM;2 (19 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P22G.CPR;3 copied to _$3$MUA2:[]P22G.CPR;3 (7 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P22G.LOG;1 copied to _$3$MUA2:[]P22G.LOG;1 (551 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P22GIBM.LOG;2 copied to _$3$MUA2:[]P22GIBM.LOG;2 (549 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P22GX1.COM;6 copied to _$3$MUA2:[]P22GX1.COM;6 (21 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1872X]P22GX2.COM;2 copied to _$3$MUA2:[]P22GX2.COM;2 (20 records)
%COPY-S-NEWFILES, 10 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[FOREMAN.FV1873X]

Directory $2$DUA58:[FOREMAN.FV1873X]
MASK.COM;16               2/3       17-JAN-1991 00:00:00.00
MASK.LOG;1               29/30      16-JAN-1991 00:00:00.00
P10G.CPR;2                1/3       17-JAN-1991 00:00:00.00
P10G.LOG;1               58/60      18-JAN-1991 00:00:00.00
P10GX1.COM;5              4/6       18-JAN-1991 00:00:00.00
P14G.CPR;2                1/3       16-JAN-1991 00:00:00.00
P14G.LOG;1               49/51      16-JAN-1991 00:00:00.00
P14GX1.COM;3              3/3       17-JAN-1991 00:00:00.00
P26G.CPR;2                2/3       16-JAN-1991 00:00:00.00
P26G.LOG;1               33/33      16-JAN-1991 00:00:00.00
P26GX1.COM;3              3/3       17-JAN-1991 00:00:00.00
P27G.CPR;2                1/3       17-JAN-1991 00:00:00.00
P27G.LOG;1              187/189     18-JAN-1991 00:00:00.00
P27GX1.COM;4              2/3       17-JAN-1991 00:00:00.00
P33G.CPR;2                1/3       17-JAN-1991 00:00:00.00
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P33G.LOG;1                83/84      18-JAN-1991 00:00:00.00
P33GX1.COM;3               3/3       17-JAN-1991 00:00:00.00
P38G.CPR;2                 2/3       18-JAN-1991 00:00:00.00
P38G.LOG;1                52/54      18-JAN-1991 00:00:00.00
P38GIBM.LOG;4             49/51      23-JAN-1991 00:00:00.00
P38GX1.COM;4               3/3       22-JAN-1991 00:00:00.00
P38GX1.LOG;1              52/54      21-JAN-1991 00:00:00.00
P38GX2.COM;2               3/3       23-JAN-1991 00:00:00.00
P39G.CPR;2                 2/3       18-JAN-1991 00:00:00.00
P39G.LOG;1                78/78      18-JAN-1991 00:00:00.00
P39GX1.COM;3               5/6       18-JAN-1991 00:00:00.00
P40G.CPR;2                 2/3       18-JAN-1991 00:00:00.00
P40G.LOG;1                62/63      22-JAN-1991 00:00:00.00
P40GIBM.LOG;2             62/63      23-JAN-1991 00:00:00.00
P40GX1.COM;3               2/3       18-JAN-1991 00:00:00.00
P40GX2.COM;2               3/3       23-JAN-1991 00:00:00.00
TEMPROC.COM;14             2/3       17-JAN-1991 00:00:00.00
TEMPROC.LOG;1             15/15      15-JAN-1991 00:00:00.00
Total of 33 files, 856/891 blocks.
$ COPY / LOG MET58:[FOREMAN.FV1873X]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]MASK.COM;16 copied to _$3$MUA2:[]MASK.COM;16 (17 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]MASK.LOG;1 copied to _$3$MUA2:[]MASK.LOG;1 (296 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P10G.CPR;2 copied to _$3$MUA2:[]P10G.CPR;2 (2 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P10G.LOG;1 copied to _$3$MUA2:[]P10G.LOG;1 (608 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P10GX1.COM;5 copied to _$3$MUA2:[]P10GX1.COM;5 (39 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P14G.CPR;2 copied to _$3$MUA2:[]P14G.CPR;2 (8 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P14G.LOG;1 copied to _$3$MUA2:[]P14G.LOG;1 (373 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P14GX1.COM;3 copied to _$3$MUA2:[]P14GX1.COM;3 (29 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P26G.CPR;2 copied to _$3$MUA2:[]P26G.CPR;2 (9 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P26G.LOG;1 copied to _$3$MUA2:[]P26G.LOG;1 (538 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P26GX1.COM;3 copied to _$3$MUA2:[]P26GX1.COM;3 (25 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P27G.CPR;2 copied to _$3$MUA2:[]P27G.CPR;2 (3 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P27G.LOG;1 copied to _$3$MUA2:[]P27G.LOG;1 (1827 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P27GX1.COM;4 copied to _$3$MUA2:[]P27GX1.COM;4 (23 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P33G.CPR;2 copied to _$3$MUA2:[]P33G.CPR;2 (1 record)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P33G.LOG;1 copied to _$3$MUA2:[]P33G.LOG;1 (747 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P33GX1.COM;3 copied to _$3$MUA2:[]P33GX1.COM;3 (29 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38G.CPR;2 copied to _$3$MUA2:[]P38G.CPR;2 (12 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38G.LOG;1 copied to _$3$MUA2:[]P38G.LOG;1 (659 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38GIBM.LOG;4 copied to _$3$MUA2:[]P38GIBM.LOG;4 (657 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38GX1.COM;4 copied to _$3$MUA2:[]P38GX1.COM;4 (28 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38GX1.LOG;1 copied to _$3$MUA2:[]P38GX1.LOG;1 (659 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P38GX2.COM;2 copied to _$3$MUA2:[]P38GX2.COM;2 (28 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P39G.CPR;2 copied to _$3$MUA2:[]P39G.CPR;2 (14 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P39G.LOG;1 copied to _$3$MUA2:[]P39G.LOG;1 (912 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P39GX1.COM;3 copied to _$3$MUA2:[]P39GX1.COM;3 (49 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P40G.CPR;2 copied to _$3$MUA2:[]P40G.CPR;2 (14 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P40G.LOG;1 copied to _$3$MUA2:[]P40G.LOG;1 (839 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P40GIBM.LOG;2 copied to _$3$MUA2:[]P40GIBM.LOG;2 (839 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P40GX1.COM;3 copied to _$3$MUA2:[]P40GX1.COM;3 (25 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]P40GX2.COM;2 copied to _$3$MUA2:[]P40GX2.COM;2 (25 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]TEMPROC.COM;14 copied to _$3$MUA2:[]TEMPROC.COM;14 (17 records)
%COPY-S-COPIED, $2$DUA58:[FOREMAN.FV1873X]TEMPROC.LOG;1 copied to _$3$MUA2:[]TEMPROC.LOG;1 (203 records)
%COPY-S-NEWFILES, 33 files created
$ !
```

```
$ SHOW DEV / FULL  STAPE
Magtape $3$MUA2: (HSC002), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                 1266    Operations completed              42275
    Owner process          "BATCH_546"  Owner UIC                 [NEROP1VX,YOJ]
    Owner process ID         206028ED   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size                2048
    Volume label             "101812"   Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status               Process  Mount count                           1
    ACP process name       "MUA2CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
$ MOUNT / NOWRITE STAPE 101812
%MOUNT-I-MOUNTED, 101812 mounted on _$3$MUA2: (HSC002)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]

Directory _$3$MUA2:[]
ASSIGNEXT.COM;4          2/2       24-JAN-1991 00:00:00.00
BLDLNK.COM;7             1/1        8-JAN-1991 00:00:00.00
BLDLNK.LOG;1             4/4        8-JAN-1991 00:00:00.00
BLDLNK2.COM;5            2/2        7-JAN-1991 00:00:00.00
BLDLNK2.LOG;1            5/5        8-JAN-1991 00:00:00.00
BLDLNK3.COM;1            1/1       21-JAN-1991 00:00:00.00
BLDLNK4.COM;2            1/1       24-JAN-1991 00:00:00.00
CRLINK2.COM;3            2/2        8-JAN-1991 00:00:00.00
FOROTHER.COM;1           1/1        4-JAN-1991 00:00:00.00
CREATE1.DFL;1            1/1       12-JUL-1990 00:00:00.00
CREATE1.FOR;1            3/3        7-JUN-1988 00:00:00.00
CREATE1.LNK;1            1/1       11-JAN-1991 00:00:00.00
CREATE2.DFL;1            1/1       12-JUL-1990 00:00:00.00
CREATE2.FOR;1            2/2       19-JUL-1988 00:00:00.00
CREATE2.LNK;1            2/2       11-JAN-1991 00:00:00.00
CREATE3.DFL;1            1/1       12-JUL-1990 00:00:00.00
CREATE3.FOR;1            2/2       19-JUL-1988 00:00:00.00
CREATE3.LNK;1            1/1       11-JAN-1991 00:00:00.00
CREATE4.DFL;1            1/1       12-JUL-1990 00:00:00.00
CREATE4.FOR;1            3/3        9-JUN-1988 00:00:00.00
CREATE4.LNK;1            1/1       11-JAN-1991 00:00:00.00
CREATE6.DFL;1            1/1       12-JUL-1990 00:00:00.00
CREATE6.FOR;1            6/6        2-APR-1990 00:00:00.00
CREATE6.LNK;1            1/1       11-JAN-1991 00:00:00.00
CRTFLS.DFL;1             1/1       12-JUL-1990 00:00:00.00
CRTFLS.FOR;1             3/3        1-MAY-1990 00:00:00.00
CRTFLS.LNK;1             1/1       11-JAN-1991 00:00:00.00
FLIST1.FOR;1             1/1        7-JUN-1988 00:00:00.00
FLIST2.FOR;1             2/2       28-JUL-1988 00:00:00.00
INIT1.FOR;1              1/1        7-JUN-1988 00:00:00.00
LIST1.DFL;1              1/1       12-JUL-1990 00:00:00.00
LIST1.FOR;1              1/1        4-JUN-1988 00:00:00.00
LIST1.LNK;1              2/2       11-JAN-1991 00:00:00.00
MARK.FOR;1               3/3        7-JUN-1988 00:00:00.00
OPFLS.DFL;1              1/1       12-JUL-1990 00:00:00.00
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OPFLS.FOR;1	3/3	11-APR-1990	00:00:00.00
OPFLS.LNK;1	1/1	11-JAN-1991	00:00:00.00
PRINT8.FOR;1	2/2	7-JUN-1988	00:00:00.00
PRNT5A.FOR;1	2/2	6-JUN-1988	00:00:00.00
PRNT5B.FOR;1	2/2	6-JUN-1988	00:00:00.00
PRNT6A.FOR;1	2/2	19-JUL-1988	00:00:00.00
PRNT6B.FOR;1	2/2	19-JUL-1988	00:00:00.00
PRNT7A.FOR;1	1/1	7-JUN-1988	00:00:00.00
PRNT7B.FOR;1	3/3	19-JUL-1988	00:00:00.00
PROG1.EXT;1	1/1	7-JUN-1988	00:00:00.00
PROG2.EXT;1	1/1	7-JUN-1988	00:00:00.00
PROG3.EXT;1	1/1	7-JUN-1988	00:00:00.00
PROG4.EXT;1	1/1	7-JUN-1988	00:00:00.00
PROG5.EXT;1	1/1	3-JUN-1988	00:00:00.00
PROG6.EXT;1	1/1	9-JUN-1988	00:00:00.00
RDDB1.FOR;1	1/1	7-JUN-1988	00:00:00.00
RDDB2.FOR;1	1/1	7-JUN-1988	00:00:00.00
RDDB3.FOR;1	2/2	7-JUN-1988	00:00:00.00
RDDB4.FOR;1	2/2	28-MAR-1990	00:00:00.00
RDPGMS.FOR;1	2/2	19-JUL-1988	00:00:00.00
SPLIT.FOR;1	2/2	7-JUN-1988	00:00:00.00
VALID1.FOR;1	2/2	7-JUN-1988	00:00:00.00
VALID2.FOR;1	2/2	19-JUL-1988	00:00:00.00
WRPGMS.FOR;1	2/2	7-JUN-1988	00:00:00.00
WRRPT.FOR;1	3/3	19-JUL-1988	00:00:00.00
CONCCMP2.LOG;1	6/6	24-JAN-1991	00:00:00.00
CRTFLS3.LOG;1	6/6	16-JAN-1991	00:00:00.00
PFCMP.LOG;1	7/7	21-JAN-1991	00:00:00.00
REGION.EXT;1	1/1	23-MAY-1989	00:00:00.00
REGPRM.EXT;1	5/5	30-NOV-1988	00:00:00.00
ADDCNC.FOR;2	1/1	5-JUL-1989	00:00:00.00
ADIFCN.FOR;3	1/1	5-NOV-1990	00:00:00.00
ANDFCN.FOR;5	1/1	5-NOV-1990	00:00:00.00
BLKDAT.FOR;7	2/2	5-NOV-1990	00:00:00.00
CLOCK1.FOR;2	1/1	5-NOV-1990	00:00:00.00
CN2VAX.COM;15	1/1	23-JAN-1991	00:00:00.00
CNCSTAT.FOR;9	2/2	24-JAN-1991	00:00:00.00
CNGRID.DFL;5	1/1	23-JAN-1991	00:00:00.00
CNGRID.FOR;8	2/2	5-NOV-1990	00:00:00.00
CNGRID.LNK;1	1/1	24-JAN-1991	00:00:00.00
CNGRIDX1.COM;10	1/1	24-JAN-1991	00:00:00.00
CNHDBF.EXT;2	1/1	6-APR-1988	00:00:00.00
CONCCMP.DFL;4	1/1	24-JAN-1991	00:00:00.00
CONCCMP.FOR;14	13/13	24-JAN-1991	00:00:00.00
CONCCMP.LNK;1	2/2	24-JAN-1991	00:00:00.00
CONCCMP.MAKE;4	2/2	23-JAN-1991	00:00:00.00
CONCCMP1.COM;1	1/1	24-JAN-1991	00:00:00.00
CONCCMP2.COM;7	1/1	24-JAN-1991	00:00:00.00
COPYCNC.FOR;2	1/1	30-NOV-1990	00:00:00.00
DFNRMS.FOR;9	1/1	5-NOV-1990	00:00:00.00
DIFCNC.FOR;2	1/1	5-JUL-1989	00:00:00.00
DIMANL.EXT;4	1/1	3-NOV-1990	00:00:00.00
DTF_TRANS.COM;3	1/1	23-JAN-1991	00:00:00.00
EXWST.FOR;1	1/1	2-JAN-1991	00:00:00.00
GETMENU.FOR;1	3/3	15-AUG-1990	00:00:00.00

GETNUM.FOR;1	3/3	15-AUG-1990 00:00:00.00
HDCONC.EXT;3	2/2	5-JUL-1989 00:00:00.00
HDINCN.EXT;2	2/2	12-DEC-1988 00:00:00.00
HDRCON.FOR;6	2/2	5-NOV-1990 00:00:00.00
LEN2.FOR;3	1/1	10-AUG-1990 00:00:00.00
LEVNMS.EXT;2	1/1	15-JUL-1986 00:00:00.00
MAKGRD.FOR;6	2/2	5-NOV-1990 00:00:00.00
MAKMAP.FOR;2	2/2	5-JUL-1989 00:00:00.00
MAXCNC.FOR;2	1/1	5-JUL-1989 00:00:00.00
MAXPRM.EXT;2	1/1	15-JUN-1989 00:00:00.00
MODELS.EXT;2	1/1	2-NOV-1990 00:00:00.00
NRDFAV.FOR;2	1/1	5-JUL-1989 00:00:00.00
NRDFCN.FOR;2	1/1	5-JUL-1989 00:00:00.00
PARMFL.EXT;2	1/1	18-FEB-1988 00:00:00.00
RUNDAT.EXT;2	1/1	2-JUL-1986 00:00:00.00
SLECTR.FOR;6	17/17	5-NOV-1990 00:00:00.00
TIMCON.FOR;6	1/1	5-NOV-1990 00:00:00.00
TPTANL.EXT;2	1/1	12-JAN-1987 00:00:00.00
UNTANL.EXT;2	1/1	28-OCT-1988 00:00:00.00
CMPGRID.DFL;1	1/1	21-JAN-1991 00:00:00.00
CMPGRID.FOR;1	10/10	21-JAN-1991 00:00:00.00
CMPGRID.LNK;1	2/2	21-JAN-1991 00:00:00.00
GRDIF.FOR;1	3/3	14-JAN-1989 00:00:00.00
PFCMP.COM;1	1/1	22-JAN-1991 00:00:00.00
ACOMPB.FOR;1	1/1	26-MAY-1988 00:00:00.00
ADATE.FOR;1	1/1	26-MAY-1988 00:00:00.00
AGRID1.FOR;1	7/7	30-AUG-1988 00:00:00.00
AGRID2.FOR;1	7/7	30-AUG-1988 00:00:00.00
AGRID3.FOR;1	9/9	30-AUG-1988 00:00:00.00
ATAPE.FOR;1	4/4	26-MAY-1988 00:00:00.00
BDATE.FOR;1	1/1	26-MAY-1988 00:00:00.00
BGRID1.FOR;1	10/10	19-OCT-1988 00:00:00.00
BGRID2.FOR;1	12/12	19-OCT-1988 00:00:00.00
BGRID3.FOR;1	12/12	19-OCT-1988 00:00:00.00
CELL0.FOR;1	9/9	9-AUG-1988 00:00:00.00
CELL1.FOR;1	2/2	9-JUN-1988 00:00:00.00
CELL2.FOR;1	2/2	9-JUN-1988 00:00:00.00
CELL3.FOR;1	1/1	26-MAY-1988 00:00:00.00
CELLAR.FOR;1	1/1	9-JUN-1988 00:00:00.00
CHAIN2.FOR;1	4/4	26-MAY-1988 00:00:00.00
CLOCK1.FOR;1	2/2	30-AUG-1988 00:00:00.00
CLOCK2.FOR;1	2/2	30-AUG-1988 00:00:00.00
CLRHDR.FOR;1	2/2	26-OCT-1988 00:00:00.00
COMBS.EXT;1	1/1	24-JUN-1988 00:00:00.00
CONCS.EXT;1	1/1	1-NOV-1988 00:00:00.00
CPUTOT.FOR;1	2/2	8-JUL-1988 00:00:00.00
DATEHR.FOR;1	2/2	26-MAY-1988 00:00:00.00
DATHR2.FOR;1	1/1	26-MAY-1988 00:00:00.00
DATHR3.FOR;1	2/2	26-MAY-1988 00:00:00.00
DATHR4.FOR;1	2/2	26-MAY-1988 00:00:00.00
DATHR5.FOR;1	2/2	26-MAY-1988 00:00:00.00
DATHR6.FOR;1	1/1	25-JUL-1988 00:00:00.00
DATIME.EXT;1	1/1	5-APR-1989 00:00:00.00
DATTIM.FOR;1	1/1	8-NOV-1988 00:00:00.00
DIRREC.EXT;1	1/1	9-JUN-1988 00:00:00.00

ERROUT.FOR;1	1/1	31-AUG-1988 00:00:00.00
EXSTAT.EXT;1	1/1	9-JUL-1990 00:00:00.00
FDIR1.EXT;1	1/1	11-MAY-1988 00:00:00.00
FDIR2.EXT;1	1/1	11-MAY-1988 00:00:00.00
FHEAD1.EXT;1	2/2	11-MAY-1988 00:00:00.00
FHEAD2.EXT;1	2/2	9-JUN-1988 00:00:00.00
FILL.FOR;1	1/1	26-MAY-1988 00:00:00.00
FLNAM2.FOR;1	1/1	26-MAY-1988 00:00:00.00
FLNAM3.FOR;1	1/1	26-MAY-1988 00:00:00.00
FLSMRY.FOR;1	2/2	6-JUL-1988 00:00:00.00
FRACT.EXT;1	1/1	2-NOV-1988 00:00:00.00
FSKIP1.FOR;1	3/3	26-MAY-1988 00:00:00.00
FSTAT1.FOR;1	3/3	9-JUN-1988 00:00:00.00
GETMEM.FOR;1	2/2	27-MAY-1988 00:00:00.00
GETMSG.FOR;1	2/2	8-JUL-1988 00:00:00.00
GETYN.FOR;1	2/2	9-AUG-1988 00:00:00.00
GMTLCL.FOR;1	1/1	26-MAY-1988 00:00:00.00
GPRIME.FOR;1	6/6	8-NOV-1988 00:00:00.00
GRDDEF.EXT;1	1/1	11-MAY-1988 00:00:00.00
GREG.FOR;1	1/1	26-MAY-1988 00:00:00.00
HNDLSV.EXT;1	1/1	8-JUL-1988 00:00:00.00
IASSGN.FOR;1	1/1	26-MAY-1988 00:00:00.00
IBLKR.FOR;1	1/1	26-MAY-1988 00:00:00.00
INDEX1.FOR;1	1/1	26-MAY-1988 00:00:00.00
INDEX2.FOR;1	1/1	8-JUL-1988 00:00:00.00
IOCL.FOR;1	1/1	15-JUN-1988 00:00:00.00
IOERR.FOR;1	1/1	26-MAY-1988 00:00:00.00
IOUNIT.EXT;1	1/1	1-NOV-1988 00:00:00.00
JFILE1.FOR;1	2/2	8-JUN-1988 00:00:00.00
JFILE2.FOR;1	3/3	26-MAY-1988 00:00:00.00
JFILE3.FOR;1	2/2	26-MAY-1988 00:00:00.00
JFILE4.FOR;1	3/3	26-MAY-1988 00:00:00.00
JFILE5.FOR;1	2/2	8-NOV-1988 00:00:00.00
JFILE6.FOR;1	3/3	24-AUG-1989 00:00:00.00
JFILEX.FOR;1	2/2	11-AUG-1988 00:00:00.00
JHOUR1.FOR;1	1/1	26-MAY-1988 00:00:00.00
JULIAN.FOR;1	1/1	26-MAY-1988 00:00:00.00
JUNIT.FOR;1	2/2	26-MAY-1988 00:00:00.00
KDAY.FOR;1	1/1	26-MAY-1988 00:00:00.00
LEN1.FOR;1	1/1	26-MAY-1988 00:00:00.00
MATCH.FOR;1	1/1	26-MAY-1988 00:00:00.00
MOVE4.FOR;1	1/1	26-MAY-1988 00:00:00.00
NEXTHR.FOR;1	2/2	3-JUN-1988 00:00:00.00
OPDIR2.FOR;1	3/3	26-MAY-1988 00:00:00.00
OPEN2.FOR;1	4/4	26-MAY-1988 00:00:00.00
PARAM.EXT;1	1/1	27-OCT-1988 00:00:00.00
PARMS.EXT;1	1/1	9-JUN-1988 00:00:00.00
P1.EXT;1	1/1	11-MAY-1988 00:00:00.00
POINTS.FOR;1	7/7	17-AUG-1988 00:00:00.00
PQ1CB42.FOR;1	6/6	8-NOV-1988 00:00:00.00
PQCOEFCB42.FOR;1	3/3	8-NOV-1988 00:00:00.00
PRID.EXT;1	1/1	11-MAY-1988 00:00:00.00
PROGID.FOR;1	2/2	26-MAY-1988 00:00:00.00
RATEDCB42.FOR;1	4/4	8-NOV-1988 00:00:00.00
RDDIR1.FOR;1	3/3	15-JUN-1988 00:00:00.00

RDFHD1.FOR;1	1/1	26-MAY-1988	00:00:00.00
RDFHD2.FOR;1	2/2	9-JUN-1988	00:00:00.00
RDFILE.FOR;1	1/1	26-MAY-1988	00:00:00.00
RDFT1.FOR;1	4/4	8-JUL-1988	00:00:00.00
RDFT2.FOR;1	4/4	8-JUL-1988	00:00:00.00
RDFT3.FOR;1	4/4	8-JUL-1988	00:00:00.00
RDFT4.FOR;1	4/4	26-MAY-1988	00:00:00.00
RDFT5.FOR;1	4/4	26-MAY-1988	00:00:00.00
RDREC.FOR;1	3/3	28-SEP-1988	00:00:00.00
RDSRF1.FOR;1	4/4	11-AUG-1988	00:00:00.00
RDTAPE.FOR;1	3/3	26-MAY-1988	00:00:00.00
RDWNDO.FOR;1	3/3	11-AUG-1988	00:00:00.00
REMBLK.FOR;1	1/1	26-MAY-1988	00:00:00.00
REORDR.FOR;1	2/2	26-MAY-1988	00:00:00.00
SOLAR.FOR;1	3/3	28-JUN-1988	00:00:00.00
SOLELV.FOR;1	2/2	26-MAY-1988	00:00:00.00
SORT4.FOR;1	3/3	7-JUL-1988	00:00:00.00
TOTAL.FOR;1	1/1	8-NOV-1988	00:00:00.00
TRNLOG.FOR;1	3/3	8-JUL-1988	00:00:00.00
TRNSLT.FOR;1	5/5	13-JUL-1989	00:00:00.00
WRCHAR.FOR;1	1/1	31-AUG-1988	00:00:00.00
WRFILE.FOR;1	1/1	26-MAY-1988	00:00:00.00
WRFT1.FOR;1	4/4	8-JUL-1988	00:00:00.00
WRFT3.FOR;1	4/4	8-JUL-1988	00:00:00.00
WRFT4.FOR;1	4/4	26-MAY-1988	00:00:00.00
WRFT5.FOR;1	4/4	26-MAY-1988	00:00:00.00
WRREC.FOR;1	3/3	10-JUN-1988	00:00:00.00
XATAN2.FOR;1	1/1	26-MAY-1988	00:00:00.00
CR14.COM;1	1/1	11-JAN-1991	00:00:00.00
CR1IN2.DAT;1	6/6	27-MAR-1990	00:00:00.00
CR4IN2.DAT;1	37/37	16-NOV-1990	00:00:00.00
CR6.COM;1	1/1	11-JAN-1991	00:00:00.00
CR6.CPR;1	1/1	15-MAY-1990	00:00:00.00
CRTFLS.COM;4	1/1	22-JAN-1991	00:00:00.00
DIRECT2.DAT;1	201/201	11-JAN-1991	00:00:00.00
PROGDB1.DAT;1	25/25	11-JAN-1991	00:00:00.00
PROGDB2.DAT;1	42/42	11-JAN-1991	00:00:00.00
PROGDB3.DAT;1	145/145	11-JAN-1991	00:00:00.00
PROGDB4.DAT;1	59/59	11-JAN-1991	00:00:00.00
PROGDB5.DAT;1	3/3	27-MAR-1990	00:00:00.00
P06G.CPR;2	1/1	11-JUN-1990	00:00:00.00
P06G.LOG;1	5/5	15-JAN-1991	00:00:00.00
P06GX1.COM;1	1/1	15-JAN-1991	00:00:00.00
P13G.CPR;2	1/1	11-JUN-1990	00:00:00.00
P13G.LOG;1	3/3	15-JAN-1991	00:00:00.00
P13GX1.COM;1	1/1	15-JAN-1991	00:00:00.00
P25G.CPR;2	1/1	11-JUN-1990	00:00:00.00
P25G.LOG;1	3/3	15-JAN-1991	00:00:00.00
P25GX1.COM;1	1/1	15-JAN-1991	00:00:00.00
P01G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P01G.LOG;1	6/6	16-JAN-1991	00:00:00.00
P01GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P03G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P03G.LOG;1	13/13	16-JAN-1991	00:00:00.00
P03GX1.COM;2	1/1	16-JAN-1991	00:00:00.00

P04G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P04G.LOG;1	56/56	16-JAN-1991	00:00:00.00
P04GX1.COM;3	1/1	16-JAN-1991	00:00:00.00
P05G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P05G.LOG;1	24/24	16-JAN-1991	00:00:00.00
P05GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P07G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P07G.LOG;1	60/60	17-JAN-1991	00:00:00.00
P07GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P08G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P08G.LOG;1	109/109	17-JAN-1991	00:00:00.00
P08GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P09G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P09G.LOG;1	13/13	17-JAN-1991	00:00:00.00
P09GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P11G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P11G.LOG;1	73/73	18-JAN-1991	00:00:00.00
P11GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P12G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P12G.LOG;1	44/44	18-JAN-1991	00:00:00.00
P12GX1.COM;2	2/2	16-JAN-1991	00:00:00.00
P15G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P15G.LOG;1	11/11	18-JAN-1991	00:00:00.00
P15GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P16G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P16G.LOG;1	8/8	16-JAN-1991	00:00:00.00
P16GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P17G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P17G.LOG;1	23/23	18-JAN-1991	00:00:00.00
P17GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P19G.CPR;3	1/1	16-JAN-1991	00:00:00.00
P19G.LOG;1	8/8	16-JAN-1991	00:00:00.00
P19GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P23G.CPR;2	1/1	16-JAN-1991	00:00:00.00
P23G.LOG;1	16/16	16-JAN-1991	00:00:00.00
P23GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
P29G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P29G.LOG;1	19/19	18-JAN-1991	00:00:00.00
P29GX1.COM;2	2/2	16-JAN-1991	00:00:00.00
P32G.CPR;2	1/1	17-JAN-1991	00:00:00.00
P32G.LOG;1	9/9	18-JAN-1991	00:00:00.00
P32GX1.COM;2	1/1	16-JAN-1991	00:00:00.00
PFMFCOPY.COM;3	2/2	18-JAN-1991	00:00:00.00
PFMFCOPY.LOG;1	20/20	18-JAN-1991	00:00:00.00
P02G.CPR;3	1/1	20-JAN-1991	00:00:00.00
P02G.LOG;1	4/4	20-JAN-1991	00:00:00.00
P02GIBM.LOG;2	4/4	23-JAN-1991	00:00:00.00
P02GX1.COM;5	1/1	22-JAN-1991	00:00:00.00
P02GX2.COM;2	1/1	23-JAN-1991	00:00:00.00
P22G.CPR;3	1/1	20-JAN-1991	00:00:00.00
P22G.LOG;1	15/15	20-JAN-1991	00:00:00.00
P22GIBM.LOG;2	14/14	23-JAN-1991	00:00:00.00
P22GX1.COM;6	1/1	22-JAN-1991	00:00:00.00
P22GX2.COM;2	1/1	23-JAN-1991	00:00:00.00
MASK.COM;16	1/1	17-JAN-1991	00:00:00.00

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MASK.LOG;1                 8/8        16-JAN-1991 00:00:00.00
P10G.CPR;2                 1/1        17-JAN-1991 00:00:00.00
P10G.LOG;1                16/16       18-JAN-1991 00:00:00.00
P10GX1.COM;5               1/1        18-JAN-1991 00:00:00.00
P14G.CPR;2                 1/1        16-JAN-1991 00:00:00.00
P14G.LOG;1                13/13       16-JAN-1991 00:00:00.00
P14GX1.COM;3               1/1        17-JAN-1991 00:00:00.00
P26G.CPR;2                 1/1        16-JAN-1991 00:00:00.00
P26G.LOG;1                 9/9        16-JAN-1991 00:00:00.00
P26GX1.COM;3               1/1        17-JAN-1991 00:00:00.00
P27G.CPR;2                 1/1        17-JAN-1991 00:00:00.00
P27G.LOG;1                49/49       18-JAN-1991 00:00:00.00
P27GX1.COM;4               1/1        17-JAN-1991 00:00:00.00
P33G.CPR;2                 1/1        17-JAN-1991 00:00:00.00
P33G.LOG;1                22/22       18-JAN-1991 00:00:00.00
P33GX1.COM;3               1/1        17-JAN-1991 00:00:00.00
P38G.CPR;2                 1/1        18-JAN-1991 00:00:00.00
P38G.LOG;1                14/14       18-JAN-1991 00:00:00.00
P38GIBM.LOG;4             13/13       23-JAN-1991 00:00:00.00
P38GX1.COM;4               1/1        22-JAN-1991 00:00:00.00
P38GX1.LOG;1              14/14       21-JAN-1991 00:00:00.00
P38GX2.COM;2               1/1        23-JAN-1991 00:00:00.00
P39G.CPR;2                 1/1        18-JAN-1991 00:00:00.00
P39G.LOG;1                21/21       18-JAN-1991 00:00:00.00
P39GX1.COM;3               2/2        18-JAN-1991 00:00:00.00
P40G.CPR;2                 1/1        18-JAN-1991 00:00:00.00
P40G.LOG;1                17/17       22-JAN-1991 00:00:00.00
P40GIBM.LOG;2             17/17       23-JAN-1991 00:00:00.00
P40GX1.COM;3               1/1        18-JAN-1991 00:00:00.00
P40GX2.COM;2               1/1        23-JAN-1991 00:00:00.00
TEMPROC.COM;14             1/1        17-JAN-1991 00:00:00.00
TEMPROC.LOG;1              4/4        15-JAN-1991 00:00:00.00
Total of 342 files, 1893/1893 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 101812
$ EXIT
  YOJ          job terminated at  4-MAY-1991 14:54:05.10
  Accounting information:
  Buffered I/O count:         3518      Peak working set size:   565
  Direct I/O count:           3205      Peak page file size:    4482
  Page faults:                5163      Mounted volumes:           2
  Charged CPU time:     0 00:00:33.51   Elapsed time:     0 00:08:39.57
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2. Tape Volume 102332

Description: CODE 2

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        VAXTM1's boot time was     6-MAY-1991 01:32:45.81
*************************************************************************
*                          CURRENT NEWS ALERTS                          *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "VAXTM1"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "CODE 2"     9TRACK

  Volume:       102322                Owner:       VAXTM1::YOJ
  Format:       BACKUP                Brand:       MEMOREX
  Allocated:     7-MAY-1991 12:32     Scratch:     21-MAY-1991 12:32
  Purchased:    27-OCT-1989 12:01     Cleaned:      9-NOV-1990 22:54
  Media type:   9TRACK                Length:        2400
  Mounts:            0                UIC:         [NEROP1VX,YOJ]
  Location:     VAXTM1                Protection:  S:RW,O:RW,G:R,W:
  Notes:        CODE 2
  Offsite:                            Onsite:
  IO Errors:         0                Flag:        ALLOCATED
  Next volume:  *none*                Previous:    *none*
  Pool:                               Rec len: 0   Block factor: 0
  Initialized:   7-MAY-1991 12:32     Density:     6250
  Slot number:
  Side:                               Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   102322
%DCL-I-ALLOC, _$3$MUA6: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "102322"
%SLS-I-OPRNOTIF, operator notified ( 7-MAY-1991 12:33:04)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 102322
$ MOUNT / WRITE / DENSITY = 6250 STAPE  102322
%MOUNT-I-MOUNTED, 102322 mounted on _$3$MUA6: (HSC003)
$ !
$ SHOW DEV / FULL  STAPE
Magtape $3$MUA6: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
```

```
    Error count                    0    Operations completed                51
    Owner process        "BATCH_695"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        20200E12    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                3    Default buffer size               2048
    Volume label            "102322"    Relative volume no.                  0
    Record size                    0    Transaction count                    1
    Mount status             Process    Mount count                          1
    ACP process name      "MUA6CACP"
    Density                     6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.CORE]
Directory $2$DUA58:[ROMLIB.CORE]
    ADATE.FOR;1                 4/6       23-MAY-1989 10:28:21.60
    ADVSFL.EXT;1                1/3        7-NOV-1988 08:29:06.03
    ASORT.FOR;1                 2/3        5-SEP-1989 14:12:33.33
    BCFILE.EXT;1                2/3       14-MAR-1988 09:16:45.23
    BCPRCS.FOR;1                6/6       23-MAY-1989 10:28:32.41
    BGBCFL.EXT;1                2/3       14-MAR-1988 09:16:45.92
    BGBMFL.EXT;1                1/3       14-MAR-1988 09:16:47.24
    BGBTFL.EXT;1                2/3        1-NOV-1988 13:20:03.73
    BGGUTS.EXT;1               29/30      14-MAR-1988 09:16:48.04
    BGICCN.EXT;1                1/3       14-MAR-1988 09:17:23.83
    BIGGAM.FOR;1               25/27       6-SEP-1989 13:39:17.61
    BLKMOD.FOR;1               13/15      22-AUG-1989 10:23:02.96
    BMCOEF.EXT;1                2/3       14-MAR-1988 09:16:48.85
    BMFILE.EXT;1                3/3        9-NOV-1988 08:26:57.27
    BMPRCS.FOR;1                9/9       23-MAY-1989 10:28:55.50
    BTFILE.EXT;1                1/3        7-NOV-1988 10:38:40.46
    BTPRCS.FOR;1                6/6       23-MAY-1989 10:29:04.41
    CELLM.FOR;1                 7/9       19-AUG-1989 13:23:56.92
    CHEMIN.EXT;1                4/6        7-NOV-1988 11:01:17.92
    CHEMSW.EXT;1                1/3       14-MAR-1988 09:16:50.34
    CLOCK1.FOR;1                5/6       23-MAY-1989 10:29:16.58
    CLOCK2.FOR;1                5/6       23-MAY-1989 10:29:23.43
    CNFILE.EXT;1                1/3       14-MAR-1988 09:16:51.11
    CNPRCS.FOR;1                7/9       23-MAY-1989 10:29:28.33
    CONFAC.EXT;1                1/3       14-MAR-1988 09:17:26.11
    CPUTIM.FOR;1                3/3       11-SEP-1989 15:47:16.21
    CSPHRX.EXT;1              135/135     14-MAR-1988 09:16:52.00
    DATTIM.FOR;1                4/6       23-MAY-1989 10:29:35.75
    DIMENS.EXT;1                2/3       29-SEP-1988 16:08:49.18
    DUMPHD.FOR;1                7/9       19-AUG-1989 13:26:03.70
    ERRGT.EXT;1                 1/3       14-MAR-1988 09:16:53.61
    FLNAMS.EXT;1                2/3        8-MAY-1988 12:22:25.58
    FSKIP1.FOR;1                7/9       23-MAY-1989 10:29:44.41
    GTCOEF.EXT;1                2/3       14-MAR-1988 09:16:54.27
    GTILDE.FOR;1                7/9       23-MAY-1989 10:29:48.32
    HDFMTS.EXT;1                1/3       29-NOV-1988 08:41:30.74
    HDSTAV.EXT;1                5/6       14-MAR-1988 09:17:28.27
    HEADBC.EXT;1                5/6       14-MAR-1988 09:16:55.71
    HEADBM.EXT;1                9/9       21-JUN-1989 13:31:37.96
    HEADBT.EXT;1                6/6       14-MAR-1988 09:17:29.75
    HEADCN.EXT;1                6/6       14-MAR-1988 09:17:30.43
    HEADIC.EXT;1                5/6       14-MAR-1988 09:17:31.23
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HEADIN.EXT;1	5/6	14-MAR-1988	09:16:56.40
HSTEP.FOR;1	21/21	23-MAY-1989	10:29:54.16
HSTEPS.EXT;1	2/3	14-MAR-1988	09:16:57.45
ICFILE.EXT;1	1/3	14-MAR-1988	09:16:58.83
ICPRCS.FOR;1	7/9	23-MAY-1989	10:30:02.80
INDEX1.FOR;1	3/3	23-MAY-1989	10:30:09.02
INIRUN.FOR;1	13/15	28-AUG-1989	14:57:30.72
IOCL.FOR;1	2/3	23-MAY-1989	10:30:19.17
JFILE2.FOR;1	6/6	19-AUG-1989	13:18:57.66
JFILE5.FOR;1	6/6	17-AUG-1989	09:05:15.89
JFILE6.FOR;1	7/9	17-AUG-1989	08:54:37.60
JULIAN.FOR;1	2/3	23-MAY-1989	10:30:33.35
JUNIT.FOR;1	3/3	23-MAY-1989	10:30:38.42
LGBMFL.EXT;1	3/3	10-NOV-1988	08:12:51.28
LILGAM.FOR;1	39/42	22-AUG-1989	10:27:28.88
LILGSP.EXT;1	2/3	14-MAR-1988	09:17:00.17
LUNITS.EXT;1	3/3	6-JUN-1988	08:00:29.37
LVNAME.EXT;1	1/3	14-MAR-1988	09:17:01.05
NDXSPC.EXT;1	2/3	14-MAR-1988	09:17:01.90
NEWICS.FOR;1	15/15	15-AUG-1989	15:24:12.31
NROOTS.EXT;1	2/3	14-MAR-1988	09:17:02.60
OPBCON.FOR;1	7/9	19-AUG-1989	13:22:47.03
OPBMAT.FOR;1	5/6	23-MAY-1989	10:31:04.94
OPBTRK.FOR;1	4/6	23-MAY-1989	10:31:12.41
OPCONC.FOR;1	8/9	23-MAY-1989	10:31:19.82
OPICON.FOR;1	7/9	23-MAY-1989	10:31:25.66
OPSTAV.FOR;1	19/21	23-MAY-1989	10:31:32.32
OPWRCN.FOR;1	12/12	23-MAY-1989	10:31:37.54
ORSPBC.FOR;1	4/6	23-MAY-1989	10:31:43.44
ORSPBM.FOR;1	4/6	23-MAY-1989	10:31:48.63
ORSPIC.FOR;1	4/6	23-MAY-1989	10:31:54.51
POBCON.FOR;1	7/9	23-MAY-1989	10:32:00.65
POBTRK.FOR;1	7/9	23-MAY-1989	10:32:06.87
POCONC.FOR;1	7/9	23-MAY-1989	10:32:16.89
POICON.FOR;1	7/9	23-MAY-1989	10:32:24.82
POMXBM.FOR;1	8/9	23-MAY-1989	10:32:32.27
POSTAV.FOR;1	6/6	15-AUG-1989	15:25:29.35
PQ1.FOR;1	19/21	22-AUG-1989	10:28:32.53
PQCOEF.FOR;1	10/12	23-MAY-1989	10:32:51.59
PRGSMY.FOR;1	26/30	5-SEP-1989	14:13:42.62
RATED.FOR;1	10/12	23-MAY-1989	10:33:09.70
RDBCON.FOR;1	12/15	22-AUG-1989	10:29:51.57
RDBMAT.FOR;1	12/15	22-AUG-1989	10:31:01.51
RDBT.FOR;1	12/12	17-AUG-1989	13:18:06.18
RDBTRK.FOR;1	10/12	22-AUG-1989	10:31:59.02
RDCHAR.FOR;1	2/3	23-MAY-1989	10:33:49.34
RDCONC.FOR;1	11/12	22-AUG-1989	10:33:10.21
RDFILE.FOR;1	2/3	23-MAY-1989	10:34:04.81
RDHDBM.FOR;1	10/12	19-AUG-1989	13:27:17.63
RDICON.FOR;1	11/12	22-AUG-1989	10:34:11.97
RDMXBM.FOR;1	10/12	17-AUG-1989	09:30:48.24
RDSTAV.FOR;1	8/9	23-MAY-1989	10:34:36.65
RKLEVS.EXT;1	1/3	14-MAR-1988	09:17:04.80
ROWSCT.EXT;1	2/3	14-MAR-1988	09:17:32.37
RTCONS.EXT;1	5/6	15-AUG-1989	10:13:41.06

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    RTPHO.FOR;1              7/9       23-MAY-1989 10:34:43.95
    RTSET.FOR;1             12/12      23-MAY-1989 10:34:51.81
    RTSHBC.EXT;1             2/3       14-MAR-1988 09:17:06.78
    RTSHBM.EXT;1             2/3       14-MAR-1988 09:17:07.61
    RTSHBT.EXT;1             2/3       14-MAR-1988 09:17:32.95
    RTSHCN.EXT;1             2/3       14-MAR-1988 09:17:08.94
    RTSHIC.EXT;1             2/3       14-MAR-1988 09:17:09.91
    RUNMGR.FOR;1            19/21      22-AUG-1989 09:32:51.26
    RUNTMS.EXT;1             2/3        6-SEP-1989 08:50:39.94
    SPNAME.EXT;1             1/3       14-MAR-1988 09:17:11.61
    STOPFL.EXT;1             1/3       14-MAR-1988 09:17:12.56
    SUBID.EXT;1              2/3        6-JUN-1988 07:29:54.95
    TEXTPT.EXT;1             3/3       19-AUG-1989 14:53:09.21
    TILDE.EXT;1              2/3       14-MAR-1988 09:17:14.78
    TIMER.FOR;1              7/9        6-SEP-1989 13:40:17.71
    TSHDBC.EXT;1             2/3       14-MAR-1988 09:17:15.76
    TSHDBM.EXT;1             2/3       14-MAR-1988 09:17:16.73
    TSHDBT.EXT;1             2/3       14-MAR-1988 09:17:34.54
    TSHDCN.EXT;1             2/3       14-MAR-1988 09:17:17.84
    TSHDIC.EXT;1             2/3       14-MAR-1988 09:17:18.69
    TSHDMD.EXT;1             2/3       14-MAR-1988 09:17:19.58
    TSHDSV.EXT;1             2/3       14-MAR-1988 09:17:20.41
    TSTEPS.EXT;1             6/6       19-AUG-1989 14:54:46.51
    UNITIO.EXT;1             1/3       14-MAR-1988 09:17:21.20
    WRCHAR.FOR;1             2/3       23-MAY-1989 10:35:09.95
    WRCONC.FOR;1             6/9       22-AUG-1989 10:39:26.50
    WRFILE.FOR;1             2/3       23-MAY-1989 10:35:21.28
    WRSTAV.FOR;1            29/30      23-MAY-1989 10:35:26.83
    ZADVSL.EXT;1             1/3       14-MAR-1988 09:17:22.15
Total of 126 files, 908/1071 blocks.
$ COPY / LOG MET58:[ROMLIB.CORE]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ADATE.FOR;1 copied to _$3$MUA6:[]ADATE.FOR;1 (61 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ADVSFL.EXT;1 copied to _$3$MUA6:[]ADVSFL.EXT;1 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ASORT.FOR;1 copied to _$3$MUA6:[]ASORT.FOR;1 (45 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BCFILE.EXT;1 copied to _$3$MUA6:[]BCFILE.EXT;1 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BCPRCS.FOR;1 copied to _$3$MUA6:[]BCPRCS.FOR;1 (102 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BGBCFL.EXT;1 copied to _$3$MUA6:[]BGBCFL.EXT;1 (21 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BGBMFL.EXT;1 copied to _$3$MUA6:[]BGBMFL.EXT;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BGBTFL.EXT;1 copied to _$3$MUA6:[]BGBTFL.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BGGUTS.EXT;1 copied to _$3$MUA6:[]BGGUTS.EXT;1 (461 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BGICCN.EXT;1 copied to _$3$MUA6:[]BGICCN.EXT;1 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BIGGAM.FOR;1 copied to _$3$MUA6:[]BIGGAM.FOR;1 (378 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BLKMOD.FOR;1 copied to _$3$MUA6:[]BLKMOD.FOR;1 (145 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BMCOEF.EXT;1 copied to _$3$MUA6:[]BMCOEF.EXT;1 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BMFILE.EXT;1 copied to _$3$MUA6:[]BMFILE.EXT;1 (31 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BMPRCS.FOR;1 copied to _$3$MUA6:[]BMPRCS.FOR;1 (154 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BTFILE.EXT;1 copied to _$3$MUA6:[]BTFILE.EXT;1 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]BTPRCS.FOR;1 copied to _$3$MUA6:[]BTPRCS.FOR;1 (104 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CELLM.FOR;1 copied to _$3$MUA6:[]CELLM.FOR;1 (113 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CHEMIN.EXT;1 copied to _$3$MUA6:[]CHEMIN.EXT;1 (37 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CHEMSW.EXT;1 copied to _$3$MUA6:[]CHEMSW.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CLOCK1.FOR;1 copied to _$3$MUA6:[]CLOCK1.FOR;1 (77 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CLOCK2.FOR;1 copied to _$3$MUA6:[]CLOCK2.FOR;1 (78 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CNFILE.EXT;1 copied to _$3$MUA6:[]CNFILE.EXT;1 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CNPRCS.FOR;1 copied to _$3$MUA6:[]CNPRCS.FOR;1 (131 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CONFAC.EXT;1 copied to _$3$MUA6:[]CONFAC.EXT;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CPUTIM.FOR;1 copied to _$3$MUA6:[]CPUTIM.FOR;1 (52 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]CSPHRX.EXT;1 copied to _$3$MUA6:[]CSPHRX.EXT;1 (1109 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]DATTIM.FOR;1 copied to _$3$MUA6:[]DATTIM.FOR;1 (56 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]DIMENS.EXT;1 copied to _$3$MUA6:[]DIMENS.EXT;1 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]DUMPHD.FOR;1 copied to _$3$MUA6:[]DUMPHD.FOR;1 (89 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ERRGT.EXT;1 copied to _$3$MUA6:[]ERRGT.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]FLNAMS.EXT;1 copied to _$3$MUA6:[]FLNAMS.EXT;1 (24 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]FSKIP1.FOR;1 copied to _$3$MUA6:[]FSKIP1.FOR;1 (119 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]GTCOEF.EXT;1 copied to _$3$MUA6:[]GTCOEF.EXT;1 (27 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]GTILDE.FOR;1 copied to _$3$MUA6:[]GTILDE.FOR;1 (117 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HDFMTS.EXT;1 copied to _$3$MUA6:[]HDFMTS.EXT;1 (12 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HDSTAV.EXT;1 copied to _$3$MUA6:[]HDSTAV.EXT;1 (53 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADBC.EXT;1 copied to _$3$MUA6:[]HEADBC.EXT;1 (55 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADBM.EXT;1 copied to _$3$MUA6:[]HEADBM.EXT;1 (101 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADBT.EXT;1 copied to _$3$MUA6:[]HEADBT.EXT;1 (67 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADCN.EXT;1 copied to _$3$MUA6:[]HEADCN.EXT;1 (70 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADIC.EXT;1 copied to _$3$MUA6:[]HEADIC.EXT;1 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HEADIN.EXT;1 copied to _$3$MUA6:[]HEADIN.EXT;1 (57 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HSTEP.FOR;1 copied to _$3$MUA6:[]HSTEP.FOR;1 (322 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]HSTEPS.EXT;1 copied to _$3$MUA6:[]HSTEPS.EXT;1 (23 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ICFILE.EXT;1 copied to _$3$MUA6:[]ICFILE.EXT;1 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ICPRCS.FOR;1 copied to _$3$MUA6:[]ICPRCS.FOR;1 (127 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]INDEX1.FOR;1 copied to _$3$MUA6:[]INDEX1.FOR;1 (43 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]INIRUN.FOR;1 copied to _$3$MUA6:[]INIRUN.FOR;1 (213 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]IOCL.FOR;1 copied to _$3$MUA6:[]IOCL.FOR;1 (23 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]JFILE2.FOR;1 copied to _$3$MUA6:[]JFILE2.FOR;1 (92 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]JFILE5.FOR;1 copied to _$3$MUA6:[]JFILE5.FOR;1 (96 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]JFILE6.FOR;1 copied to _$3$MUA6:[]JFILE6.FOR;1 (101 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]JULIAN.FOR;1 copied to _$3$MUA6:[]JULIAN.FOR;1 (34 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]JUNIT.FOR;1 copied to _$3$MUA6:[]JUNIT.FOR;1 (62 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]LGBMFL.EXT;1 copied to _$3$MUA6:[]LGBMFL.EXT;1 (29 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]LILGAM.FOR;1 copied to _$3$MUA6:[]LILGAM.FOR;1 (601 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]LILGSP.EXT;1 copied to _$3$MUA6:[]LILGSP.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]LUNITS.EXT;1 copied to _$3$MUA6:[]LUNITS.EXT;1 (28 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]LVNAME.EXT;1 copied to _$3$MUA6:[]LVNAME.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]NDXSPC.EXT;1 copied to _$3$MUA6:[]NDXSPC.EXT;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]NEWICS.FOR;1 copied to _$3$MUA6:[]NEWICS.FOR;1 (227 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]NROOTS.EXT;1 copied to _$3$MUA6:[]NROOTS.EXT;1 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPBCON.FOR;1 copied to _$3$MUA6:[]OPBCON.FOR;1 (105 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPBMAT.FOR;1 copied to _$3$MUA6:[]OPBMAT.FOR;1 (73 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPBTRK.FOR;1 copied to _$3$MUA6:[]OPBTRK.FOR;1 (63 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPCONC.FOR;1 copied to _$3$MUA6:[]OPCONC.FOR;1 (118 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPICON.FOR;1 copied to _$3$MUA6:[]OPICON.FOR;1 (107 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPSTAV.FOR;1 copied to _$3$MUA6:[]OPSTAV.FOR;1 (271 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]OPWRCN.FOR;1 copied to _$3$MUA6:[]OPWRCN.FOR;1 (184 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ORSPBC.FOR;1 copied to _$3$MUA6:[]ORSPBC.FOR;1 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ORSPBM.FOR;1 copied to _$3$MUA6:[]ORSPBM.FOR;1 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ORSPIC.FOR;1 copied to _$3$MUA6:[]ORSPIC.FOR;1 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POBCON.FOR;1 copied to _$3$MUA6:[]POBCON.FOR;1 (90 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POBTRK.FOR;1 copied to _$3$MUA6:[]POBTRK.FOR;1 (89 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POCONC.FOR;1 copied to _$3$MUA6:[]POCONC.FOR;1 (90 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POICON.FOR;1 copied to _$3$MUA6:[]POICON.FOR;1 (91 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POMXBM.FOR;1 copied to _$3$MUA6:[]POMXBM.FOR;1 (104 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]POSTAV.FOR;1 copied to _$3$MUA6:[]POSTAV.FOR;1 (76 records)
```

```
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]PQ1.FOR;1 copied to _$3$MUA6:[]PQ1.FOR;1 (203 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]PQCOEF.FOR;1 copied to _$3$MUA6:[]PQCOEF.FOR;1 (108 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]PRGSMY.FOR;1 copied to _$3$MUA6:[]PRGSMY.FOR;1 (528 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RATED.FOR;1 copied to _$3$MUA6:[]RATED.FOR;1 (108 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDBCON.FOR;1 copied to _$3$MUA6:[]RDBCON.FOR;1 (171 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDBMAT.FOR;1 copied to _$3$MUA6:[]RDBMAT.FOR;1 (170 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDBT.FOR;1 copied to _$3$MUA6:[]RDBT.FOR;1 (186 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDBTRK.FOR;1 copied to _$3$MUA6:[]RDBTRK.FOR;1 (148 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDCHAR.FOR;1 copied to _$3$MUA6:[]RDCHAR.FOR;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDCONC.FOR;1 copied to _$3$MUA6:[]RDCONC.FOR;1 (154 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDFILE.FOR;1 copied to _$3$MUA6:[]RDFILE.FOR;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDHDBM.FOR;1 copied to _$3$MUA6:[]RDHDBM.FOR;1 (154 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDICON.FOR;1 copied to _$3$MUA6:[]RDICON.FOR;1 (156 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDMXBM.FOR;1 copied to _$3$MUA6:[]RDMXBM.FOR;1 (183 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RDSTAV.FOR;1 copied to _$3$MUA6:[]RDSTAV.FOR;1 (121 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RKLEVS.EXT;1 copied to _$3$MUA6:[]RKLEVS.EXT;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ROWSCT.EXT;1 copied to _$3$MUA6:[]ROWSCT.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTCONS.EXT;1 copied to _$3$MUA6:[]RTCONS.EXT;1 (45 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTPHO.FOR;1 copied to _$3$MUA6:[]RTPHO.FOR;1 (112 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSET.FOR;1 copied to _$3$MUA6:[]RTSET.FOR;1 (134 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSHBC.EXT;1 copied to _$3$MUA6:[]RTSHBC.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSHBM.EXT;1 copied to _$3$MUA6:[]RTSHBM.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSHBT.EXT;1 copied to _$3$MUA6:[]RTSHBT.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSHCN.EXT;1 copied to _$3$MUA6:[]RTSHCN.EXT;1 (23 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RTSHIC.EXT;1 copied to _$3$MUA6:[]RTSHIC.EXT;1 (23 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RUNMGR.FOR;1 copied to _$3$MUA6:[]RUNMGR.FOR;1 (281 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]RUNTMS.EXT;1 copied to _$3$MUA6:[]RUNTMS.EXT;1 (19 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]SPNAME.EXT;1 copied to _$3$MUA6:[]SPNAME.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]STOPFL.EXT;1 copied to _$3$MUA6:[]STOPFL.EXT;1 (14 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]SUBID.EXT;1 copied to _$3$MUA6:[]SUBID.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TEXTPT.EXT;1 copied to _$3$MUA6:[]TEXTPT.EXT;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TILDE.EXT;1 copied to _$3$MUA6:[]TILDE.EXT;1 (21 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TIMER.FOR;1 copied to _$3$MUA6:[]TIMER.FOR;1 (121 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDBC.EXT;1 copied to _$3$MUA6:[]TSHDBC.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDBM.EXT;1 copied to _$3$MUA6:[]TSHDBM.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDBT.EXT;1 copied to _$3$MUA6:[]TSHDBT.EXT;1 (19 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDCN.EXT;1 copied to _$3$MUA6:[]TSHDCN.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDIC.EXT;1 copied to _$3$MUA6:[]TSHDIC.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDMD.EXT;1 copied to _$3$MUA6:[]TSHDMD.EXT;1 (20 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSHDSV.EXT;1 copied to _$3$MUA6:[]TSHDSV.EXT;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]TSTEPS.EXT;1 copied to _$3$MUA6:[]TSTEPS.EXT;1 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]UNITIO.EXT;1 copied to _$3$MUA6:[]UNITIO.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]WRCHAR.FOR;1 copied to _$3$MUA6:[]WRCHAR.FOR;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]WRCONC.FOR;1 copied to _$3$MUA6:[]WRCONC.FOR;1 (105 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]WRFILE.FOR;1 copied to _$3$MUA6:[]WRFILE.FOR;1 (25 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]WRSTAV.FOR;1 copied to _$3$MUA6:[]WRSTAV.FOR;1 (436 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.CORE]ZADVSL.EXT;1 copied to _$3$MUA6:[]ZADVSL.EXT;1 (15 records)
%COPY-S-NEWFILES, 126 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.PREPROC]
Directory $2$DUA58:[ROMLIB.PREPROC]

AAAREADME.TXT;1          3/3       16-OCT-1990 14:54:56.70
ARMERG.COM;1             5/6       11-JUN-1990 13:56:12.75
ARMERG.DFL;1             1/3       16-OCT-1990 12:55:42.62
ARMERG.FOR;1            14/15       3-APR-1989 14:36:31.57
```

BIDBUF.EXT;1	1/3	14-JUL-1988	11:53:02.94
BUOY_CRCT.DFL;1	1/3	16-OCT-1990	12:55:44.51
BUOY_CRCT.DOC;1	15/15	29-JAN-1990	13:28:05.48
BUOY_CRCT.FOR;1	3/3	6-DEC-1988	17:19:18.86
BUOY_INTP.DFL;1	1/3	16-OCT-1990	12:55:45.94
BUOY_INTP.DOC;1	19/21	30-JAN-1990	10:43:44.72
BUOY_INTP.FOR;1	40/42	8-JUN-1989	10:36:54.57
BUOY_PROCESSING.DOC;1	11/12	22-JUN-1990	09:32:44.48
BUOY_RFMT.DFL;1	1/3	16-OCT-1990	12:55:47.50
BUOY_RFMT.DOC;1	17/18	30-JAN-1990	15:11:57.14
BUOY_RFMT.FOR;1	5/6	7-OCT-1988	16:56:54.85
BUOY_STAT.DFL;1	1/3	16-OCT-1990	12:55:49.61
BUOY_STAT.DOC;1	13/15	7-FEB-1990	10:53:54.71
BUOY_STAT.FOR;1	20/21	23-NOV-1988	12:02:55.05
BUOY_WNDW.DFL;1	1/3	16-OCT-1990	12:55:50.91
BUOY_WNDW.DOC;1	20/21	26-JAN-1990	14:55:08.32
BUOY_WNDW.FOR;1	8/9	8-JUN-1989	07:52:32.37
CLIPIT.FOR;1	4/6	14-NOV-1984	09:33:46.66
CLIPIT_W.FOR;5	8/9	22-AUG-1988	08:54:38.54
COLORS.EXT;4	4/6	12-SEP-1988	10:44:43.47
COPYTAPE.DFL;1	1/3	16-OCT-1990	12:55:53.83
COPYTAPE.DOC;1	14/15	9-FEB-1990	08:31:22.12
COPYTAPE.FOR;1	3/3	14-OCT-1988	15:53:33.53
COUNT_STNPERHR.COM;1	1/3	16-MAR-1990	10:00:27.94
COUNT_STNPERHR.DFL;1	1/3	16-OCT-1990	12:55:55.07
COUNT_STNPERHR.DOC;1	13/15	9-FEB-1990	14:44:30.88
COUNT_STNPERHR.FOR;1	3/3	2-FEB-1989	11:55:50.42
CVCHEM.COM;1	1/3	25-SEP-1989	11:50:12.97
CVCHEM.DFL;1	1/3	16-OCT-1990	12:55:56.46
CVCHEM.DOC;1	29/30	25-SEP-1989	14:52:18.67
CVCHEM.FOR;1	7/9	25-SEP-1989	11:45:03.69
DEL.COM;1	3/3	2-AUG-1988	14:21:22.02
DEL.DFL;1	1/3	16-OCT-1990	12:55:57.72
DEL.FOR;1	8/9	12-JUN-1990	12:55:05.14
DEVICE.EXT;4	4/6	3-OCT-1989	09:45:48.87
DFLFILES.DAT;2	7/9	21-JUN-1990	14:25:11.17
DOCFILES.DAT;2	5/6	21-JUN-1990	14:25:05.93
DRAW3D.FOR;1	1/3	14-NOV-1984	09:33:47.21
FINDCT.DFL;1	1/3	16-OCT-1990	12:55:59.98
FINDCT.DOC;1	11/12	7-NOV-1989	16:28:25.28
FINDCT.FOR;1	2/3	27-MAR-1989	17:36:18.26
FINDPT.DFL;1	1/3	16-OCT-1990	12:56:01.50
FINDPT.DOC;1	11/12	6-NOV-1989	16:47:30.78
FINDPT.FOR;1	3/3	19-JUN-1989	10:50:59.51
FORFILES.DAT;3	4/6	21-JUN-1990	15:23:26.58
FORFILES_COMMENTS.DAT;4	7/9	22-JUN-1990	13:44:51.17
GEOPOL.FOR;1	13/15	17-JUL-1990	11:50:38.70
GEOPOL_ASCII.FOR;6	13/15	18-JUL-1990	13:06:24.77
GEOPOL_BIN.FOR;6	13/15	11-JUL-1990	09:23:57.05
GETHUE.FOR;8	31/33	11-JUL-1990	10:47:22.94
GETTDEV.FOR;8	15/15	4-APR-1991	12:11:33.05
HDGRAF2.FOR;5	5/6	13-JUL-1988	15:15:41.63
HODO3D.FOR;1	9/9	12-JUL-1988	15:22:30.90
HUES.EXT;2	2/3	5-SEP-1989	12:54:02.77
IHSHFT.FOR;1	3/3	6-FEB-1987	15:57:04.80

INIT3D.FOR;4	1/3	21-NOV-1984	14:39:51.46
INTPRM.EXT;1	6/6	28-JUL-1988	11:33:29.76
LEN.LIST;2	2/3	14-JUN-1990	15:24:46.48
LINE_C.DFL;1	1/3	16-OCT-1990	12:56:02.80
LINE_C.FOR;1	4/6	28-JAN-1987	15:47:31.76
LINE_CR.DFL;1	1/3	16-OCT-1990	12:58:36.71
LINE_CR.FOR;1	8/9	25-JUL-1986	13:01:25.33
LISTNC.FOR;1	4/6	12-JUL-1988	15:21:05.68
LLWBUF.EXT;2	1/3	6-JUL-1988	07:25:59.60
MAKOPY.FOR;1	2/3	12-JUL-1988	15:15:20.29
MASK.COM;1	2/3	18-MAY-1990	11:47:23.87
MASK.DFL;1	3/3	16-OCT-1990	12:56:06.60
MASK.FOR;1	29/30	5-APR-1989	10:14:43.20
MBEXTR.COM;1	2/3	9-NOV-1989	08:19:51.48
MBEXTR.DFL;1	1/3	16-OCT-1990	12:56:08.39
MBEXTR.DOC;1	14/15	30-AUG-1989	14:28:50.22
MBEXTR.FOR;1	8/9	8-SEP-1989	10:09:01.17
MBMERGE.COM;1	2/3	9-NOV-1989	08:14:07.81
MBMERGE.DFL;1	1/3	16-OCT-1990	12:56:10.22
MBMERGE.DOC;1	16/18	8-SEP-1989	10:04:43.21
MBMERGE.FOR;1	7/9	3-FEB-1989	16:15:51.77
MOVE3D.FOR;1	1/3	14-NOV-1984	09:33:48.90
NBIOMASS.COM;1	3/3	9-APR-1990	13:57:50.93
NBIOMASS.DFL;1	1/3	16-OCT-1990	12:56:11.88
NBIOMASS.SAS;1	32/33	22-SEP-1989	08:23:02.97
NUMTXT.FOR;1	13/15	12-JUL-1988	15:21:41.05
OBJLIB.OLB;2	78/78	14-NOV-1984	12:38:43.14
OFFTAPE.COM;1	2/3	26-JAN-1990	11:04:22.13
OFFTAPE.DFL;1	1/3	16-OCT-1990	12:56:13.35
OFFTAPE.DOC;1	13/15	20-FEB-1990	14:37:54.25
OFFTAPE.FOR;1	9/9	1-NOV-1988	16:55:02.85
OPENDEV.FOR;50	28/30	9-APR-1991	14:08:55.79
PARAMS.EXT;9	1/3	5-APR-1989	09:06:37.78
PFMFCOPY.COM;1	6/6	12-NOV-1987	08:15:14.08
PFMFCOPY.DFL;1	2/3	16-OCT-1990	12:56:15.55
PFMFCOPY.FOR;1	4/6	28-DEC-1987	11:40:30.14
PILLAR.FOR;1	3/3	14-NOV-1984	09:33:49.38
PILRHP.FOR;1	3/3	14-NOV-1984	10:35:45.28
PIXCEL.EXT;3	2/3	20-OCT-1989	12:01:24.84
PLOTHP.FOR;1	4/6	14-NOV-1984	10:35:46.12
PLOTTK.FOR;1	4/6	14-NOV-1984	10:35:46.81
PNT3D.FOR;1	1/3	21-NOV-1984	09:55:58.12
PREPROC.LIS;3	2/3	7-JUN-1990	12:25:26.72
PREPROCS.LIS;6	14/15	19-NOV-1990	14:56:57.75
PREPROCS_FOR.LIS;4	6/6	7-NOV-1990	13:42:48.76
PREPROC_SEARCH.COM;3	1/3	12-JUN-1990	16:40:41.11
PTEXTR.COM;1	2/3	11-JUN-1990	10:02:00.83
PTEXTR.DFL;1	2/3	16-OCT-1990	12:56:17.05
PTEXTR.DOC;1	33/33	9-OCT-1989	14:11:42.29
PTEXTR.FOR;1	9/9	27-JUL-1989	16:37:08.35
PTMERG.COM;1	2/3	11-JUN-1990	09:44:37.89
PTMERG.DFL;1	1/3	16-OCT-1990	12:56:18.52
PTMERG.DOC;1	15/15	5-SEP-1989	10:09:51.48
PTMERG.FOR;1	7/9	31-MAY-1989	15:30:27.23
QAINFL.CBK;9	1/3	6-MAR-1989	17:17:57.18

QAINFL2.CBK;1	1/3	11-MAY-1989	08:50:11.36
QAINPT.FOR;1	7/9	11-MAY-1989	08:51:36.06
QALIS.EXT;3	1/3	6-MAR-1989	17:18:14.88
QAOSTFL.CBK;4	1/3	7-MAR-1989	11:26:08.79
QAOUTP.COM;1	2/3	11-MAY-1989	09:00:32.47
QAOUTP.DFL;1	1/3	16-OCT-1990	12:56:20.27
QAOUTP.DOC;1	22/24	6-NOV-1989	14:14:41.08
QAOUTP.FOR;1	7/9	6-NOV-1989	14:12:15.98
QARAOB2.FOR;12	11/12	19-JUL-1988	10:37:26.29
QASCFL.CBK;1	1/3	13-OCT-1987	13:55:51.67
QASCFL2.CBK;2	1/3	27-DEC-1989	09:36:31.45
QASRCE.COM;1	2/3	14-OCT-1987	14:52:10.34
QASRCE.DFL;1	1/3	16-OCT-1990	12:56:22.27
QASRCE.DOC;1	23/24	3-JAN-1990	12:40:58.83
QASRCE.FOR;1	6/6	27-DEC-1989	09:33:57.30
QASTACK.COM;1	1/3	6-FEB-1990	09:02:53.42
QASTACK.DFL;1	1/3	16-OCT-1990	12:56:24.28
QASTACK.DOC;1	14/15	22-MAR-1990	11:02:54.17
QASTACK.FOR;1	16/18	23-JAN-1990	11:42:54.68
QASTFL.CBK;5	1/3	7-MAR-1989	11:31:14.35
QASTPT.FOR;1	6/6	17-JAN-1990	09:17:08.92
QASTRT.FOR;1	10/12	23-JAN-1990	11:41:34.52
QATOPIN.CBK;3	1/3	9-MAR-1989	11:15:20.80
QATOPOT.CBK;3	1/3	9-MAR-1989	11:15:32.20
RDATE.FOR;1	4/6	9-DEC-1988	10:32:15.57
RDBUOY.FOR;1	4/6	7-JUN-1989	07:30:47.13
RDFRPT.FOR;1	27/27	27-JUL-1989	16:23:35.97
RDPTE3.FOR;1	12/12	9-MAR-1989	08:34:55.74
RDSRF2.FOR;1	36/36	17-OCT-1988	14:26:14.15
RECBUF.EXT;3	2/3	14-JUL-1988	08:11:08.43
RETFAC.DFL;1	1/3	16-OCT-1990	12:56:25.72
RETFAC.FOR;1	25/27	9-JAN-1990	08:26:23.10
RKUPDTCB4-2.FOR;1	10/12	20-OCT-1988	09:55:17.74
ROMREG.COM;1	1/3	12-AUG-1989	13:34:08.76
ROMREG.DFL;1	1/3	16-OCT-1990	12:56:27.26
ROMREG.SAS;1	15/15	12-AUG-1989	13:34:11.18
RWND_CAN_CLCT.DFL;1	1/3	16-OCT-1990	12:56:29.40
RWND_CAN_CLCT.FOR;1	25/27	6-JUL-1989	15:24:24.31
RWND_END.DFL;1	1/3	16-OCT-1990	12:56:30.97
RWND_END.FOR;1	9/9	4-AUG-1988	14:34:30.10
RWND_PROCESSING.DOC;1	19/21	29-JUL-1988	10:51:57.24
RWND_RFMT.DFL;1	1/3	16-OCT-1990	12:56:32.35
RWND_RFMT.FOR;1	36/36	12-OCT-1988	14:09:50.69
RWND_US_CLCT.DFL;1	1/3	16-OCT-1990	12:56:34.06
RWND_US_CLCT.FOR;1	22/24	9-NOV-1988	15:22:10.12
RWND_V2.DFL;1	1/3	16-OCT-1990	16:03:30.44
RWND_V2.FOR;1	11/12	11-OCT-1988	10:12:47.58
RWND_WNDW.DFL;1	1/3	16-OCT-1990	12:56:38.29
RWND_WNDW.FOR;1	20/21	12-OCT-1988	13:27:24.80
SEANFL.EXT;7	1/3	24-FEB-1989	14:05:22.74
SETHUES.FOR;20	7/9	14-JAN-1991	12:47:32.89
SFCCAN_CLCT.COM;1	1/3	21-NOV-1989	16:17:35.41
SFCCAN_CLCT.DFL;1	1/3	16-OCT-1990	12:56:39.81
SFCCAN_CLCT.DOC;1	32/33	19-JAN-1990	16:17:08.48
SFCCAN_CLCT.FOR;1	40/42	18-JAN-1990	11:02:03.25

SFCCAN_WNDW.COM;1	2/3	27-NOV-1989	14:38:20.72
SFCCAN_WNDW.DFL;1	1/3	16-OCT-1990	12:56:41.28
SFCCAN_WNDW.DOC;1	28/30	22-JAN-1990	16:56:04.28
SFCCAN_WNDW.FOR;1	11/12	15-AUG-1988	11:10:26.70
SFCR_HRFILL.COM;1	1/3	21-FEB-1990	09:46:23.57
SFCR_HRFILL.DFL;1	1/3	16-OCT-1990	12:59:14.71
SFCR_HRFILL.DOC;1	25/27	21-FEB-1990	09:55:12.50
SFCR_HRFILL.FOR;1	6/6	10-MAR-1989	12:29:45.96
SFCUS_CLCT.COM;1	2/3	31-OCT-1989	09:32:59.53
SFCUS_CLCT.DFL;1	1/3	16-OCT-1990	12:56:44.21
SFCUS_CLCT.DOC;1	32/33	3-JAN-1990	15:28:19.87
SFCUS_CLCT.FOR;1	67/69	23-AUG-1989	12:58:18.25
SFCUS_CLD_INTP.COM;1	1/3	30-NOV-1989	10:07:29.77
SFCUS_CLD_INTP.DFL;1	1/3	16-OCT-1990	12:56:45.75
SFCUS_CLD_INTP.DOC;1	24/24	3-JAN-1990	15:23:19.30
SFCUS_CLD_INTP.FOR;1	20/21	10-OCT-1989	15:33:58.47
SFCUS_WNDW.COM;1	2/3	30-NOV-1989	08:26:33.45
SFCUS_WNDW.DFL;1	1/3	16-OCT-1990	12:56:47.71
SFCUS_WNDW.DOC;1	28/30	9-JAN-1990	09:11:47.52
SFCUS_WNDW.FOR;1	11/12	15-AUG-1988	11:12:38.21
SFC_PROCESSING.DOC;1	15/15	10-MAY-1990	15:13:34.10
SFC_RFMT.COM;1	1/3	30-NOV-1989	10:57:39.91
SFC_RFMT.DFL;1	1/3	16-OCT-1990	12:56:49.24
SFC_RFMT.DOC;1	23/24	3-JAN-1990	15:34:19.51
SFC_RFMT.FOR;1	6/6	15-AUG-1988	11:13:51.82
SFC_VRFY.COM;1	1/3	30-NOV-1989	13:46:48.61
SFC_VRFY.DFL;1	1/3	16-OCT-1990	12:56:50.88
SFC_VRFY.DOC;1	24/24	3-JAN-1990	15:35:16.71
SFC_VRFY.FOR;1	40/42	16-AUG-1988	14:36:09.20
SHOWMET.FOR;47	69/69	18-DEC-1990	13:59:20.08
SHOWMET.MAKE;1	5/6	3-MAY-1991	12:53:00.05
SHUTDEV.FOR;23	8/9	1-NOV-1990	11:51:06.92
SKEWT3.FOR;5	31/33	13-JUL-1988	14:07:33.29
SPCLIS.EXT;6	2/3	5-APR-1989	09:23:29.54
SRFILE.EXT;12	1/3	24-FEB-1989	14:04:59.70
SRTREC.FOR;1	12/12	6-APR-1989	10:08:25.06
STAT_RFMT.COM;1	1/3	8-NOV-1989	12:49:48.43
STAT_RFMT.DFL;1	1/3	16-OCT-1990	12:56:52.48
STAT_RFMT.DOC;1	17/18	7-FEB-1990	16:02:23.13
STAT_RFMT.FOR;1	4/6	9-DEC-1988	14:33:27.59
TEMPROC.COM;1	2/3	18-MAY-1990	11:48:49.59
TEMPROC.DFL;1	2/3	16-OCT-1990	12:56:54.10
TEMPROC.FOR;1	9/9	30-DEC-1988	10:53:30.35
TILPRM.EXT;17	4/6	18-MAY-1990	14:44:08.18
TMWBUF.EXT;1	1/3	9-JUL-1988	08:07:29.44
TOPEMI.COM;1	2/3	11-MAY-1989	09:52:02.09
TOPEMI.DFL;1	1/3	16-OCT-1990	12:56:55.63
TOPEMI.DOC;1	13/15	22-MAR-1990	13:22:54.83
TOPEMI.FOR;1	6/6	9-MAR-1989	18:11:48.18
TOPLIS.EXT;3	1/3	9-MAR-1989	11:15:04.47
TOPSRT.FOR;1	9/9	14-OCT-1987	15:53:34.71
TRANS3.FOR;1	7/9	14-NOV-1984	10:35:47.33
UGT.OLB;5	439/441	4-MAY-1988	08:38:01.95
VATAPE.FOR;1	8/9	2-JUN-1987	14:50:55.08
WINDOW.FOR;1	1/3	6-JUL-1988	07:41:51.74

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WINDOWAR.COM;1          5/6       11-JUN-1990 09:56:22.30
WINDOWAR.DFL;1          1/3       16-OCT-1990 12:56:57.19
WINDOWAR.FOR;1          5/6        3-FEB-1989 08:31:53.45
WINDOWMB.COM;1          4/6        8-NOV-1989 15:13:20.43
WINDOWMB.DFL;1          1/3       16-OCT-1990 12:56:59.17
WINDOWMB.DOC;1         18/18      14-SEP-1989 07:40:22.78
WINDOWMB.FOR;1          5/6       13-MAR-1989 09:47:12.19
WINDOWPT.COM;1          2/3       11-JUN-1990 08:15:52.19
WINDOWPT.DFL;1          1/3       16-OCT-1990 12:57:02.07
WINDOWPT.DOC;1         18/18       5-SEP-1989 10:04:07.46
WINDOWPT.FOR;1          5/6       30-AUG-1989 09:38:34.02
XTRACTLL.DFL;1          1/3       16-OCT-1990 12:57:04.01
XTRACTLL.DOC;1         17/18      26-JAN-1990 14:35:15.71
XTRACTLL.FOR;1          7/9       14-JUL-1988 08:16:08.38
YULIAN.FOR;1            3/3       17-JUN-1988 11:58:42.43
Total of 239 files, 2516/2841 blocks.
$ COPY / LOG MET58:[ROMLIB.PREPROC]*.*;* STAPE:
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]AAAREADME.TXT;1 copied to _$3$MUA6:[]AAAREADME.TXT;1 (30 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ARMERG.COM;1 copied to _$3$MUA6:[]ARMERG.COM;1 (62 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ARMERG.DFL;1 copied to _$3$MUA6:[]ARMERG.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ARMERG.FOR;1 copied to _$3$MUA6:[]ARMERG.FOR;1 (253 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BIDBUF.EXT;1 copied to _$3$MUA6:[]BIDBUF.EXT;1 (13 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_CRCT.DFL;1 copied to _$3$MUA6:[]BUOY_CRCT.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_CRCT.DOC;1 copied to _$3$MUA6:[]BUOY_CRCT.DOC;1 (192 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_CRCT.FOR;1 copied to _$3$MUA6:[]BUOY_CRCT.FOR;1 (52 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_INTP.DFL;1 copied to _$3$MUA6:[]BUOY_INTP.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_INTP.DOC;1 copied to _$3$MUA6:[]BUOY_INTP.DOC;1 (238 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_INTP.FOR;1 copied to _$3$MUA6:[]BUOY_INTP.FOR;1 (556 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_PROCESSING.DOC;1 copied to _$3$MUA6:[]BUOY_PROCESSING.DOC;1 (131 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_RFMT.DFL;1 copied to _$3$MUA6:[]BUOY_RFMT.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_RFMT.DOC;1 copied to _$3$MUA6:[]BUOY_RFMT.DOC;1 (213 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_RFMT.FOR;1 copied to _$3$MUA6:[]BUOY_RFMT.FOR;1 (91 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_STAT.DFL;1 copied to _$3$MUA6:[]BUOY_STAT.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_STAT.DOC;1 copied to _$3$MUA6:[]BUOY_STAT.DOC;1 (188 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_STAT.FOR;1 copied to _$3$MUA6:[]BUOY_STAT.FOR;1 (298 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_WNDW.DFL;1 copied to _$3$MUA6:[]BUOY_WNDW.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_WNDW.DOC;1 copied to _$3$MUA6:[]BUOY_WNDW.DOC;1 (244 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]BUOY_WNDW.FOR;1 copied to _$3$MUA6:[]BUOY_WNDW.FOR;1 (130 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CLIPIT.FOR;1 copied to _$3$MUA6:[]CLIPIT.FOR;1 (58 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CLIPIT_W.FOR;5 copied to _$3$MUA6:[]CLIPIT_W.FOR;5 (111 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COLORS.EXT;4 copied to _$3$MUA6:[]COLORS.EXT;4 (52 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COPYTAPE.DFL;1 copied to _$3$MUA6:[]COPYTAPE.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COPYTAPE.DOC;1 copied to _$3$MUA6:[]COPYTAPE.DOC;1 (199 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COPYTAPE.FOR;1 copied to _$3$MUA6:[]COPYTAPE.FOR;1 (49 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COUNT_STNPERHR.COM;1 copied to _$3$MUA6:[]COUNT_STNPERHR.COM;1 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COUNT_STNPERHR.DFL;1 copied to _$3$MUA6:[]COUNT_STNPERHR.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COUNT_STNPERHR.DOC;1 copied to _$3$MUA6:[]COUNT_STNPERHR.DOC;1 (184 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]COUNT_STNPERHR.FOR;1 copied to _$3$MUA6:[]COUNT_STNPERHR.FOR;1 (47 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CVCHEM.COM;1 copied to _$3$MUA6:[]CVCHEM.COM;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CVCHEM.DFL;1 copied to _$3$MUA6:[]CVCHEM.DFL;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CVCHEM.DOC;1 copied to _$3$MUA6:[]CVCHEM.DOC;1 (336 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]CVCHEM.FOR;1 copied to _$3$MUA6:[]CVCHEM.FOR;1 (110 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DEL.COM;1 copied to _$3$MUA6:[]DEL.COM;1 (41 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DEL.DFL;1 copied to _$3$MUA6:[]DEL.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DEL.FOR;1 copied to _$3$MUA6:[]DEL.FOR;1 (143 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DEVICE.EXT;4 copied to _$3$MUA6:[]DEVICE.EXT;4 (45 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DOCFILES.DAT;2 copied to _$3$MUA6:[]DOCFILES.DAT;2 (34 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]DRAW3D.FOR;1 copied to _$3$MUA6:[]DRAW3D.FOR;1 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDCT.DFL;1 copied to _$3$MUA6:[]FINDCT.DFL;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDCT.DOC;1 copied to _$3$MUA6:[]FINDCT.DOC;1 (174 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDCT.FOR;1 copied to _$3$MUA6:[]FINDCT.FOR;1 (40 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDPT.DFL;1 copied to _$3$MUA6:[]FINDPT.DFL;1 (8 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDPT.DOC;1 copied to _$3$MUA6:[]FINDPT.DOC;1 (174 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FINDPT.FOR;1 copied to _$3$MUA6:[]FINDPT.FOR;1 (48 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FORFILES.DAT;3 copied to _$3$MUA6:[]FORFILES.DAT;3 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]FORFILES_COMMENTS.DAT;4 copied to _$3$MUA6:[]FORFILES_COMMENTS.DAT;4 (90 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]GEOPOL_ASCII.FOR;6 copied to _$3$MUA6:[]GEOPOL_ASCII.FOR;6 (175 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]GEOPOL_BIN.FOR;6 copied to _$3$MUA6:[]GEOPOL_BIN.FOR;6 (183 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]GETHUE.FOR;8 copied to _$3$MUA6:[]GETHUE.FOR;8 (435 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]GETTDEV.FOR;8 copied to _$3$MUA6:[]GETTDEV.FOR;8 (222 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]HDGRAF2.FOR;5 copied to _$3$MUA6:[]HDGRAF2.FOR;5 (74 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]HODO3D.FOR;1 copied to _$3$MUA6:[]HODO3D.FOR;1 (179 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]HUES.EXT;2 copied to _$3$MUA6:[]HUES.EXT;2 (27 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]IHSHFT.FOR;1 copied to _$3$MUA6:[]IHSHFT.FOR;1 (54 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]INIT3D.FOR;4 copied to _$3$MUA6:[]INIT3D.FOR;4 (24 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]MAKOPY.FOR;1 copied to _$3$MUA6:[]MAKOPY.FOR;1 (28 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]MASK.COM;1 copied to _$3$MUA6:[]MASK.COM;1 (17 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]NBIOMASS.DFL;1 copied to _$3$MUA6:[]NBIOMASS.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]NBIOMASS.SAS;1 copied to _$3$MUA6:[]NBIOMASS.SAS;1 (277 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]NUMTXT.FOR;1 copied to _$3$MUA6:[]NUMTXT.FOR;1 (195 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]OBJLIB.OLB;2 copied to _$3$MUA6:[]OBJLIB.OLB;2 (78 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]OFFTAPE.COM;1 copied to _$3$MUA6:[]OFFTAPE.COM;1 (26 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]OFFTAPE.FOR;1 copied to _$3$MUA6:[]OFFTAPE.FOR;1 (181 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]PFMFCOPY.COM;1 copied to _$3$MUA6:[]PFMFCOPY.COM;1 (114 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]PFMFCOPY.DFL;1 copied to _$3$MUA6:[]PFMFCOPY.DFL;1 (21 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QALIS.EXT;3 copied to _$3$MUA6:[]QALIS.EXT;3 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QAOSTFL.CBK;4 copied to _$3$MUA6:[]QAOSTFL.CBK;4 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QAOUTP.COM;1 copied to _$3$MUA6:[]QAOUTP.COM;1 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QAOUTP.DFL;1 copied to _$3$MUA6:[]QAOUTP.DFL;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QAOUTP.DOC;1 copied to _$3$MUA6:[]QAOUTP.DOC;1 (259 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QAOUTP.FOR;1 copied to _$3$MUA6:[]QAOUTP.FOR;1 (118 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QARAOB2.FOR;12 copied to _$3$MUA6:[]QARAOB2.FOR;12 (188 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASCFL.CBK;1 copied to _$3$MUA6:[]QASCFL.CBK;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASCFL2.CBK;2 copied to _$3$MUA6:[]QASCFL2.CBK;2 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASRCE.COM;1 copied to _$3$MUA6:[]QASRCE.COM;1 (22 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASRCE.DFL;1 copied to _$3$MUA6:[]QASRCE.DFL;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASRCE.DOC;1 copied to _$3$MUA6:[]QASRCE.DOC;1 (266 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASRCE.FOR;1 copied to _$3$MUA6:[]QASRCE.FOR;1 (102 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTACK.COM;1 copied to _$3$MUA6:[]QASTACK.COM;1 (9 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTACK.DFL;1 copied to _$3$MUA6:[]QASTACK.DFL;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTACK.DOC;1 copied to _$3$MUA6:[]QASTACK.DOC;1 (194 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTACK.FOR;1 copied to _$3$MUA6:[]QASTACK.FOR;1 (255 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTFL.CBK;5 copied to _$3$MUA6:[]QASTFL.CBK;5 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTPT.FOR;1 copied to _$3$MUA6:[]QASTPT.FOR;1 (113 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QASTRT.FOR;1 copied to _$3$MUA6:[]QASTRT.FOR;1 (175 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QATOPIN.CBK;3 copied to _$3$MUA6:[]QATOPIN.CBK;3 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]QATOPOT.CBK;3 copied to _$3$MUA6:[]QATOPOT.CBK;3 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RDATE.FOR;1 copied to _$3$MUA6:[]RDATE.FOR;1 (70 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RDBUOY.FOR;1 copied to _$3$MUA6:[]RDBUOY.FOR;1 (64 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RDFRPT.FOR;1 copied to _$3$MUA6:[]RDFRPT.FOR;1 (396 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RDPTE3.FOR;1 copied to _$3$MUA6:[]RDPTE3.FOR;1 (210 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RDSRF2.FOR;1 copied to _$3$MUA6:[]RDSRF2.FOR;1 (527 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RECBUF.EXT;3 copied to _$3$MUA6:[]RECBUF.EXT;3 (15 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RETFAC.DFL;1 copied to _$3$MUA6:[]RETFAC.DFL;1 (5 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RETFAC.FOR;1 copied to _$3$MUA6:[]RETFAC.FOR;1 (498 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RKUPDTCB4-2.FOR;1 copied to _$3$MUA6:[]RKUPDTCB4-2.FOR;1 (119 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ROMREG.COM;1 copied to _$3$MUA6:[]ROMREG.COM;1 (16 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ROMREG.DFL;1 copied to _$3$MUA6:[]ROMREG.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]ROMREG.SAS;1 copied to _$3$MUA6:[]ROMREG.SAS;1 (206 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_CAN_CLCT.DFL;1 copied to _$3$MUA6:[]RWND_CAN_CLCT.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_CAN_CLCT.FOR;1 copied to _$3$MUA6:[]RWND_CAN_CLCT.FOR;1 (425 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_END.DFL;1 copied to _$3$MUA6:[]RWND_END.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_END.FOR;1 copied to _$3$MUA6:[]RWND_END.FOR;1 (129 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_PROCESSING.DOC;1 copied to _$3$MUA6:[]RWND_PROCESSING.DOC;1 (182 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_RFMT.DFL;1 copied to _$3$MUA6:[]RWND_RFMT.DFL;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_RFMT.FOR;1 copied to _$3$MUA6:[]RWND_RFMT.FOR;1 (542 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_US_CLCT.DFL;1 copied to _$3$MUA6:[]RWND_US_CLCT.DFL;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_US_CLCT.FOR;1 copied to _$3$MUA6:[]RWND_US_CLCT.FOR;1 (315 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_V2.DFL;1 copied to _$3$MUA6:[]RWND_V2.DFL;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_V2.FOR;1 copied to _$3$MUA6:[]RWND_V2.FOR;1 (181 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_WNDW.DFL;1 copied to _$3$MUA6:[]RWND_WNDW.DFL;1 (5 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]RWND_WNDW.FOR;1 copied to _$3$MUA6:[]RWND_WNDW.FOR;1 (318 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SEANFL.EXT;7 copied to _$3$MUA6:[]SEANFL.EXT;7 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SETHUES.FOR;20 copied to _$3$MUA6:[]SETHUES.FOR;20 (120 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_CLCT.COM;1 copied to _$3$MUA6:[]SFCCAN_CLCT.COM;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_CLCT.DFL;1 copied to _$3$MUA6:[]SFCCAN_CLCT.DFL;1 (5 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_CLCT.DOC;1 copied to _$3$MUA6:[]SFCCAN_CLCT.DOC;1 (334 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_CLCT.FOR;1 copied to _$3$MUA6:[]SFCCAN_CLCT.FOR;1 (648 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_WNDW.COM;1 copied to _$3$MUA6:[]SFCCAN_WNDW.COM;1 (12 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_WNDW.DFL;1 copied to _$3$MUA6:[]SFCCAN_WNDW.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_WNDW.DOC;1 copied to _$3$MUA6:[]SFCCAN_WNDW.DOC;1 (301 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCCAN_WNDW.FOR;1 copied to _$3$MUA6:[]SFCCAN_WNDW.FOR;1 (175 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCR_HRFILL.COM;1 copied to _$3$MUA6:[]SFCR_HRFILL.COM;1 (8 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCR_HRFILL.DFL;1 copied to _$3$MUA6:[]SFCR_HRFILL.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCR_HRFILL.DOC;1 copied to _$3$MUA6:[]SFCR_HRFILL.DOC;1 (277 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCR_HRFILL.FOR;1 copied to _$3$MUA6:[]SFCR_HRFILL.FOR;1 (98 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLCT.COM;1 copied to _$3$MUA6:[]SFCUS_CLCT.COM;1 (18 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLCT.DFL;1 copied to _$3$MUA6:[]SFCUS_CLCT.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLCT.DOC;1 copied to _$3$MUA6:[]SFCUS_CLCT.DOC;1 (337 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLCT.FOR;1 copied to _$3$MUA6:[]SFCUS_CLCT.FOR;1 (1099 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLD_INTP.COM;1 copied to _$3$MUA6:[]SFCUS_CLD_INTP.COM;1 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLD_INTP.DFL;1 copied to _$3$MUA6:[]SFCUS_CLD_INTP.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLD_INTP.DOC;1 copied to _$3$MUA6:[]SFCUS_CLD_INTP.DOC;1 (266 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_CLD_INTP.FOR;1 copied to _$3$MUA6:[]SFCUS_CLD_INTP.FOR;1 (330 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_WNDW.COM;1 copied to _$3$MUA6:[]SFCUS_WNDW.COM;1 (12 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_WNDW.DFL;1 copied to _$3$MUA6:[]SFCUS_WNDW.DFL;1 (4 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_WNDW.DOC;1 copied to _$3$MUA6:[]SFCUS_WNDW.DOC;1 (304 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFCUS_WNDW.FOR;1 copied to _$3$MUA6:[]SFCUS_WNDW.FOR;1 (183 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_PROCESSING.DOC;1 copied to _$3$MUA6:[]SFC_PROCESSING.DOC;1 (141 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_RFMT.COM;1 copied to _$3$MUA6:[]SFC_RFMT.COM;1 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_RFMT.DFL;1 copied to _$3$MUA6:[]SFC_RFMT.DFL;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_RFMT.DOC;1 copied to _$3$MUA6:[]SFC_RFMT.DOC;1 (264 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_RFMT.FOR;1 copied to _$3$MUA6:[]SFC_RFMT.FOR;1 (110 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_VRFY.COM;1 copied to _$3$MUA6:[]SFC_VRFY.COM;1 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_VRFY.DFL;1 copied to _$3$MUA6:[]SFC_VRFY.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_VRFY.DOC;1 copied to _$3$MUA6:[]SFC_VRFY.DOC;1 (272 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SFC_VRFY.FOR;1 copied to _$3$MUA6:[]SFC_VRFY.FOR;1 (643 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SHOWMET.FOR;47 copied to _$3$MUA6:[]SHOWMET.FOR;47 (957 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SHOWMET.MAKE;1 copied to _$3$MUA6:[]SHOWMET.MAKE;1 (92 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SHUTDEV.FOR;23 copied to _$3$MUA6:[]SHUTDEV.FOR;23 (97 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SKEWT3.FOR;5 copied to _$3$MUA6:[]SKEWT3.FOR;5 (374 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SPCLIS.EXT;6 copied to _$3$MUA6:[]SPCLIS.EXT;6 (21 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SRFILE.EXT;12 copied to _$3$MUA6:[]SRFILE.EXT;12 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]SRTREC.FOR;1 copied to _$3$MUA6:[]SRTREC.FOR;1 (221 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]STAT_RFMT.COM;1 copied to _$3$MUA6:[]STAT_RFMT.COM;1 (6 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]STAT_RFMT.DFL;1 copied to _$3$MUA6:[]STAT_RFMT.DFL;1 (1 record)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]STAT_RFMT.DOC;1 copied to _$3$MUA6:[]STAT_RFMT.DOC;1 (224 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]STAT_RFMT.FOR;1 copied to _$3$MUA6:[]STAT_RFMT.FOR;1 (64 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TEMPROC.COM;1 copied to _$3$MUA6:[]TEMPROC.COM;1 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TEMPROC.DFL;1 copied to _$3$MUA6:[]TEMPROC.DFL;1 (24 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TEMPROC.FOR;1 copied to _$3$MUA6:[]TEMPROC.FOR;1 (175 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TILPRM.EXT;17 copied to _$3$MUA6:[]TILPRM.EXT;17 (59 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TMWBUF.EXT;1 copied to _$3$MUA6:[]TMWBUF.EXT;1 (8 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPEMI.COM;1 copied to _$3$MUA6:[]TOPEMI.COM;1 (24 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPEMI.DFL;1 copied to _$3$MUA6:[]TOPEMI.DFL;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPEMI.DOC;1 copied to _$3$MUA6:[]TOPEMI.DOC;1 (192 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPEMI.FOR;1 copied to _$3$MUA6:[]TOPEMI.FOR;1 (102 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPLIS.EXT;3 copied to _$3$MUA6:[]TOPLIS.EXT;3 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TOPSRT.FOR;1 copied to _$3$MUA6:[]TOPSRT.FOR;1 (164 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]TRANS3.FOR;1 copied to _$3$MUA6:[]TRANS3.FOR;1 (128 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]UGT.OLB;5 copied to _$3$MUA6:[]UGT.OLB;5 (439 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]VATAPE.FOR;1 copied to _$3$MUA6:[]VATAPE.FOR;1 (137 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOW.FOR;1 copied to _$3$MUA6:[]WINDOW.FOR;1 (19 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWAR.COM;1 copied to _$3$MUA6:[]WINDOWAR.COM;1 (80 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWAR.DFL;1 copied to _$3$MUA6:[]WINDOWAR.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWAR.FOR;1 copied to _$3$MUA6:[]WINDOWAR.FOR;1 (87 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWMB.COM;1 copied to _$3$MUA6:[]WINDOWMB.COM;1 (62 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWMB.DFL;1 copied to _$3$MUA6:[]WINDOWMB.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWMB.DOC;1 copied to _$3$MUA6:[]WINDOWMB.DOC;1 (246 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWMB.FOR;1 copied to _$3$MUA6:[]WINDOWMB.FOR;1 (87 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWPT.COM;1 copied to _$3$MUA6:[]WINDOWPT.COM;1 (36 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWPT.DFL;1 copied to _$3$MUA6:[]WINDOWPT.DFL;1 (2 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWPT.DOC;1 copied to _$3$MUA6:[]WINDOWPT.DOC;1 (231 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]WINDOWPT.FOR;1 copied to _$3$MUA6:[]WINDOWPT.FOR;1 (87 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]XTRACTLL.DFL;1 copied to _$3$MUA6:[]XTRACTLL.DFL;1 (7 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]XTRACTLL.DOC;1 copied to _$3$MUA6:[]XTRACTLL.DOC;1 (238 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]XTRACTLL.FOR;1 copied to _$3$MUA6:[]XTRACTLL.FOR;1 (127 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PREPROC]YULIAN.FOR;1 copied to _$3$MUA6:[]YULIAN.FOR;1 (47 records)
%COPY-S-NEWFILES, 239 files created
$ DIRECTORY / SIZE = ALL / DATE = CREATED MET58:[ROMLIB.PROCES]
Directory $2$DUA58:[ROMLIB.PROCES]

ABGCHK.EXT;1          1/3      16-MAR-1988 11:18:29.62
ABGUTS.EXT;1         23/24     26-JUN-1987 11:54:56.24
ABTERM.FOR;1          2/3      27-SEP-1988 14:05:43.24
ABTERM5.FOR;1         1/3      15-JUL-1988 11:44:26.72
ADJFAC.EXT;1          2/3       4-NOV-1988 10:35:50.75
ADPFMF.FOR;1          3/3      26-APR-1989 14:32:42.72
ALBALF.FOR;1          7/9      27-SEP-1988 14:05:44.69
ALLFLX.FOR;1         10/12     19-JAN-1989 13:43:07.38
ALLOC.FOR;1           9/9       5-APR-1989 12:31:35.82
ALTSOL.FOR;1          5/6       5-APR-1989 12:31:47.72
APPROX.FOR;1         15/15      4-AUG-1988 12:45:13.36
ARCEST.FOR;1          4/6      25-JAN-1989 10:24:40.83
AREAC.FOR;1           2/3       3-NOV-1988 13:37:14.32
ARESEL.FOR;1         10/12     25-JAN-1989 15:24:39.88
ARSHFT.FOR;1          6/6       5-DEC-1988 15:15:42.53
```

AVGWAT.FOR;1	5/6	6-APR-1989	15:31:36.90
BARS.FOR;1	17/18	7-APR-1989	13:57:58.34
BASEV.EXT;1	1/3	21-JUN-1988	08:41:40.16
BASEVA.FOR;1	7/9	7-APR-1989	13:58:51.06
BCON.EXT;1	2/3	21-JUN-1988	08:47:49.17
BLKBC.FOR;1	3/6	22-AUG-1989	11:09:42.76
BLKBMT.FOR;1	9/9	28-JUL-1989	14:53:23.27
BLKBTR.FOR;1	2/3	31-JUL-1989	12:01:39.96
BLKCLN.FOR;1	5/6	8-NOV-1988	15:09:26.83
BLKIC.FOR;1	4/6	22-AUG-1989	11:04:22.56
BLKIMT.FOR;1	6/6	5-APR-1989	15:25:19.48
BLKMOB.FOR;1	5/6	31-JUL-1990	08:40:39.86
BM1BUF.EXT;1	1/3	24-AUG-1988	08:21:03.51
BM1VAR.EXT;1	3/3	28-OCT-1988	11:32:35.71
BM2BUF.EXT;1	1/3	24-AUG-1988	08:21:52.23
BM2VAR.EXT;1	2/3	24-AUG-1988	08:22:06.15
BMCOEF.FOR;1	10/12	31-OCT-1988	07:59:58.09
BMLUNS.EXT;1	2/3	28-JUL-1989	14:50:08.90
BMMFLS.EXT;1	2/3	6-APR-1989	08:35:54.96
BMSPEC.EXT;1	2/3	30-MAY-1988	12:31:19.42
BMTPRM.EXT;1	2/3	2-DEC-1988	11:06:38.73
BOYANT.FOR;1	11/12	23-AUG-1988	12:15:08.47
BQ3LAM.FOR;1	13/15	1-NOV-1988	15:39:40.00
BQ3PHI.FOR;1	13/15	1-NOV-1988	15:32:23.95
BTLUNS.EXT;1	1/3	31-JUL-1989	12:03:06.43
BTMFLS.EXT;1	2/3	5-APR-1989	12:58:59.74
BTRKBF.EXT;1	1/3	21-AUG-1988	11:08:25.12
BTRKVR.EXT;1	2/3	21-AUG-1988	11:09:04.47
BTRPRM.EXT;1	2/3	18-MAY-1988	08:56:33.32
BUODAT.EXT;1	1/3	6-APR-1989	09:12:58.31
BUOGRD.EXT;1	1/3	2-DEC-1988	08:33:29.35
BUOPRM.EXT;1	1/3	23-NOV-1988	08:12:30.07
BUOYPR.FOR;1	13/15	17-JAN-1990	10:34:56.69
CD.EXT;1	1/3	13-MAR-1986	15:40:15.61
CELHTS.EXT;1	1/3	15-SEP-1988	12:42:56.76
CHECK.FOR;1	12/12	5-APR-1989	12:31:56.42
CLDATN.FOR;1	25/27	11-OCT-1989	08:10:56.75
CLDCVR.EXT;1	1/3	26-JUL-1988	15:30:59.80
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CLDMOD.FOR;1	27/27	5-APR-1989	11:34:41.93
CLDPAR.FOR;1	5/6	5-APR-1989	11:49:09.80
CLDRAD.FOR;1	6/6	10-APR-1989	10:34:12.15
CLOCK.FOR;1	6/6	12-JUL-1988	14:48:43.99
CMPAUX.FOR;1	7/9	5-APR-1989	12:32:02.90
CMSA.EXT;1	1/3	30-JUL-1990	13:53:39.00
CNTRL.EXT;1	2/3	3-NOV-1988	13:39:39.65
CNTRLPT.EXT;1	2/3	27-SEP-1989	09:19:45.32
CNVBUF.EXT;1	2/3	5-APR-1989	12:18:14.23
COLDGR.FOR;1	8/9	7-APR-1989	13:59:08.01
CONDIF.FOR;1	4/6	3-NOV-1988	17:44:38.92
CONVRG.FOR;1	18/18	5-APR-1989	12:32:10.39
CONWIN.FOR;1	3/3	3-NOV-1988	17:44:52.68
CORF.EXT;1	1/3	23-JUN-1988	13:36:11.04
CORFOR.FOR;1	3/3	7-APR-1989	13:59:17.21

CORRECT.FOR;1	35/36	20-JUL-1989	10:05:51.96
COUPLE.FOR;1	6/6	26-JUL-1988	15:46:00.20
CPCONF.FOR;1	23/24	5-APR-1989	12:32:16.31
CPGRAD.FOR;1	6/6	5-APR-1989	12:32:21.10
CPULOG.FOR;1	3/3	31-JUL-1988	14:23:24.24
CRTEL8.FOR;1	6/6	10-APR-1989	10:27:50.28
CRTELV.FOR;1	6/6	27-NOV-1988	12:34:11.52
CTREFF.FOR;1	27/36	1-AUG-1990	14:48:15.70
CUBMIN.FOR;1	8/9	5-APR-1989	12:17:35.67
CUFLUX.FOR;1	27/27	19-JAN-1989	13:43:30.70
CUSET.FOR;1	5/6	27-APR-1989	09:47:58.02
DATHR.FOR;1	3/3	2-NOV-1988	08:55:04.03
DAY.FOR;1	3/3	2-NOV-1988	09:04:43.23
DAYHR.EXT;1	1/3	21-JUN-1987	11:32:34.23
DELTAT.FOR;1	1/3	27-SEP-1988	14:05:56.08
DEN.FOR;1	32/33	14-SEP-1988	18:49:39.64
DESCENT.EXT;1	4/6	5-APR-1989	12:18:14.86
DIFLAM.FOR;1	4/6	2-NOV-1988	09:09:33.15
DIFPHI.FOR;1	4/6	3-NOV-1988	13:43:45.58
DIFTRB.FOR;1	11/12	19-JAN-1989	15:31:45.51
DIVMAT.EXT;1	3/3	5-APR-1989	12:18:15.74
DIVRG.FOR;1	7/9	5-APR-1989	12:32:38.55
DLNLAM.FOR;1	4/6	2-NOV-1988	09:18:42.68
DLNPHI.FOR;1	4/6	2-NOV-1988	09:22:36.92
DPCD.FOR;1	7/9	7-APR-1989	17:27:26.01
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DVGGRD.FOR;1	10/12	2-JUN-1989	12:44:10.20
DVGPARMS.EXT;1	3/3	5-APR-1989	12:18:16.89
DVMCLC.FOR;1	7/9	5-APR-1989	12:33:07.58
EMISAR.EXT;1	1/3	24-JAN-1989	13:17:14.76
EMISP.EXT;1	1/3	6-FEB-1989	11:43:25.28
EMISPAR.EXT;1	2/3	7-APR-1989	11:32:07.84
EMISVR.EXT;1	1/3	24-AUG-1988	08:22:31.89
ENDPTS.FOR;1	18/18	16-JAN-1990	11:02:00.75
ENDRAD.EXT;1	2/3	15-JUL-1988	10:04:38.00
ENDSFC.EXT;1	2/3	1-JUL-1988	16:14:57.00
ERF.FOR;1	4/6	25-OCT-1988	15:02:14.27
ETAVS.EXT;1	1/3	23-JUN-1988	16:04:04.21
EXPCLC.FOR;1	4/6	5-APR-1989	12:33:15.72
EXTEND.FOR;1	6/6	7-APR-1989	13:59:38.13
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FILE19.EXT;1	1/3	23-AUG-1988	11:49:59.18
FILEID.EXT;1	1/3	15-NOV-1988	08:15:22.21
FILES.EXT;1	2/3	3-NOV-1988	16:49:02.54
FILES.FOR;1	22/24	5-APR-1989	12:33:22.71
FILLER.FOR;1	8/9	3-FEB-1989	15:39:11.11
FILLIN.FOR;1	9/9	8-APR-1989	14:08:53.88
FINLPT.FOR;1	25/27	5-APR-1989	12:33:29.35
FLOGIC.EXT;1	2/3	1-JUL-1988	16:04:21.00
FLOMOD.FOR;1	31/33	7-APR-1989	13:59:45.58
FLXEIN.FOR;1	3/3	11-OCT-1989	08:11:35.71
FLXPRM.EXT;1	2/3	26-JUL-1988	17:24:14.29
FLXRAD.FOR;1	7/9	10-APR-1989	10:32:42.16
FRAME.FOR;1	25/27	7-APR-1989	13:59:51.16

GAMOVS.FOR;1	2/3	27-NOV-1988	12:34:12.62
GCALC.FOR;1	13/15	5-APR-1989	12:33:36.42
GENCLC.FOR;1	7/9	5-APR-1989	12:33:40.07
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GM2MOD.FOR;1	4/6	26-JUL-1988	16:22:48.81
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GRADX6.FOR;1	4/6	7-APR-1989	13:59:59.09
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GRBUOY.FOR;1	5/6	17-JAN-1990	10:38:09.47
GRID.EXT;1	1/3	15-SEP-1988	12:23:27.50
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GRID6.EXT;1	1/3	23-AUG-1988	11:53:38.11
GRIDD.EXT;1	1/3	19-JAN-1989	13:28:35.73
GRIDEF.EXT;1	2/3	31-OCT-1988	14:24:18.23
GRIDGN.FOR;1	8/9	6-APR-1989	09:14:25.04
H1HOZ.FOR;1	9/9	7-APR-1989	14:00:05.41
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HASH1.EXT;1	1/3	10-APR-1989	16:58:52.24
HASHT.EXT;1	2/3	8-JUN-1988	16:32:10.77
HEADIM.EXT;1	8/9	28-OCT-1988	12:45:46.03
HESS.FOR;1	19/21	5-APR-1989	12:33:51.64
HOURLY.EXT;1	2/3	12-JUL-1988	10:41:50.00
HRFILE.EXT;1	1/3	14-NOV-1988	17:09:58.43
IFILES.EXT;1	5/6	16-SEP-1988	11:48:57.45
IMFILE.EXT;1	3/3	29-OCT-1988	12:20:38.18
IMLUNS.EXT;1	2/3	5-APR-1989	15:04:02.99
IMMFLS.EXT;1	2/3	5-APR-1989	15:04:53.31
IMTIME.EXT;1	2/3	26-MAY-1988	07:23:37.28
IMTPRM.EXT;1	2/3	3-NOV-1988	09:32:41.54
INDATA.EXT;1	3/3	30-JUL-1988	13:13:32.73
INITPT.FOR;1	10/12	5-APR-1989	12:33:55.97
INPRES.EXT;1	10/12	31-OCT-1988	15:04:29.99
INPUTS.EXT;1	1/3	31-OCT-1988	15:05:04.75
INTERN.EXT;1	1/3	14-JUN-1988	17:58:01.13
INTPRM.EXT;1	6/6	28-JUL-1988	11:33:29.76
INTRNL.EXT;1	3/3	19-JAN-1989	13:41:12.23
INTRPD.FOR;1	9/9	5-APR-1989	12:54:48.24
INTRPM.FOR;1	12/12	10-APR-1989	10:37:54.00
INTRPS.FOR;1	9/9	5-APR-1989	15:22:49.82
ISDATE.EXT;1	1/3	14-NOV-1988	18:04:29.61
ISLAND.FOR;1	3/3	2-DEC-1988	10:54:01.74
LAKE.EXT;1	2/3	1-JUL-1988	11:59:34.37
LAKE.FOR;1	11/12	6-JUL-1988	15:12:45.39
LAVRG.FOR;1	11/12	5-APR-1989	15:14:30.01
LCLVAL.FOR;1	4/6	23-AUG-1988	12:17:01.25
LFCNLV.EXT;1	1/3	23-AUG-1988	11:56:34.25
LINMIN.FOR;1	30/30	5-APR-1989	12:34:10.40
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LISTBT.FOR;1	4/6	5-APR-1989	09:45:24.69
LISTIM.FOR;1	7/9	5-APR-1989	15:00:32.06
LNDUSE.EXT;1	1/3	26-JUL-1988	15:33:16.19
LNRHVO.FOR;1	2/3	2-NOV-1988	09:26:02.02
LOTIME.FOR;1	3/3	3-JAN-1989	18:19:07.50

MATRIX.EXT;1	8/9	5-APR-1989	12:18:18.51
MBAR25.FOR;1	14/15	28-JUL-1988	15:12:42.00
MBSHFT.FOR;1	6/6	13-JAN-1989	12:17:50.57
MEAN.FOR;1	10/12	5-APR-1989	12:34:15.93
METBUF.EXT;1	1/3	10-APR-1989	10:38:18.47
METDAT.EXT;1	4/6	19-JAN-1989	15:27:32.41
METPRM.EXT;1	3/3	26-APR-1989	13:37:57.28
METVAR.EXT;1	2/3	1-MAR-1989	18:39:12.36
METVRS.EXT;1	3/3	10-APR-1989	10:37:24.40
MFOUT.EXT;1	2/3	26-OCT-1988	09:06:11.25
MINMAX.FOR;1	8/9	7-APR-1989	14:00:15.56
MINMX2.FOR;1	5/6	7-APR-1989	14:02:40.21
MOBPRM.EXT;1	2/3	11-JAN-1990	10:19:51.53
MODTIM.EXT;1	2/3	1-JUL-1988	14:55:27.00
NOXLIS.EXT;1	1/3	1-NOV-1988	08:41:24.32
OFFNDX.FOR;1	2/3	7-APR-1989	18:25:36.86
OPIMET.FOR;1	5/6	3-JAN-1989	18:18:24.15
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OPWRIC.FOR;1	10/12	22-AUG-1989	11:03:10.97
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OUTPT5.EXT;1	1/3	19-JAN-1989	13:16:49.88
OUTPUT.EXT;1	3/3	30-JUN-1988	11:15:42.00
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P02G.DFL;1	2/3	12-JUN-1990	12:10:14.70
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P03G.DFL;1	3/3	12-JUN-1990	12:10:16.02
P03G.FOR;1	56/57	13-JUL-1989	13:08:53.91
P03G.LNK;1	7/9	8-JAN-1991	00:00:00.00
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P05G.DFL;1	4/6	12-JUN-1990	12:10:18.06
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P10G.DFL;1	3/3	12-JUN-1990	12:10:23.06
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P15G.COM;1	3/3	12-JUN-1990	08:34:29.33
P15G.CPR;1	1/3	11-JUN-1990	08:12:06.63
P15G.DFL;1	2/3	12-JUN-1990	12:10:26.73
P15G.FOR;1	28/30	31-OCT-1988	14:23:01.86
P15G.LNK;1	6/6	8-JAN-1991	00:00:00.00
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P17G.DFL;1	2/3	12-JUN-1990	12:10:29.07
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P17G.LNK;1	5/6	8-JAN-1991	00:00:00.00
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P19G.CPR;1	1/3	11-JUN-1990	08:12:10.93

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P19G.LNK;1	6/6	8-JAN-1991	00:00:00.00
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P21G.COM;1	2/3	12-JUN-1990	08:35:47.59
P21G.CPR;1	1/3	11-JUN-1990	14:56:54.03
P21G.DFL;1	2/3	12-JUN-1990	12:10:31.86
P21G.FOR;1	14/15	8-NOV-1988	15:09:48.43
P21G.LNK;1	3/3	8-JAN-1991	00:00:00.00
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P22G.DFL;1	2/3	12-JUN-1990	12:10:33.22
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P23G.FOR;1	24/24	2-DEC-1988	09:41:43.73
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P24G.FOR;1	25/27	30-NOV-1988	10:51:48.41
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P25G.LNK;1	5/6	8-JAN-1991	00:00:00.00
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P27G.FOR;1	37/39	13-OCT-1989	11:03:47.33
P27G.LNK;1	7/9	8-JAN-1991	00:00:00.00
P29G.COM;1	5/6	12-JUN-1990	08:34:41.16
P29G.CPR;1	2/3	11-JUN-1990	09:37:31.24
P29G.DFL;1	3/3	12-JUN-1990	12:10:38.83
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P29G.FOR;1	26/27	4-NOV-1988	16:13:29.10
P29G.LNK;1	8/9	8-JAN-1991	00:00:00.00
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P31G.COM;1	2/3	12-JUN-1990	08:34:42.12
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P31G.DFL;1	1/3	12-JUN-1990	12:10:39.85
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P32G.CPR;1	1/3	11-JUN-1990	08:15:42.13
P32G.DFL;1	2/3	12-JUN-1990	12:10:40.89
P32G.FOR;1	19/21	19-JAN-1989	15:32:10.08

P32G.LNK;1	6/6	8-JAN-1991	00:00:00.00
P33G.COM;1	3/3	12-JUN-1990	08:34:44.12
P33G.CPR;1	1/3	11-JUN-1990	08:15:43.40
P33G.DFL;1	3/3	12-JUN-1990	12:10:41.79
P33G.FOR;1	33/33	11-MAY-1989	09:37:37.52
P33G.LNK;1	7/9	8-JAN-1991	00:00:00.00
P34G.COM;1	4/6	12-JUN-1990	08:34:45.17
P34G.CPR;1	2/3	11-JUN-1990	08:15:44.59
P34G.DFL;1	1/3	12-JUN-1990	12:10:42.74
P34G.FOR;1	24/24	6-APR-1989	16:51:46.35
P34G.LNK;1	3/3	8-JAN-1991	00:00:00.00
P38G.COM;1	2/3	12-JUN-1990	08:34:46.29
P38G.CPR;1	2/12	19-JUL-1990	14:19:31.42
P38G.DFL;1	3/3	12-JUN-1990	12:10:43.62
P38G.FOR;1	10/12	24-AUG-1989	10:18:20.73
P38G.LNK;1	7/9	8-JAN-1991	00:00:00.00
P39G.COM;1	5/6	12-JUN-1990	08:34:47.24
P39G.CPR;1	2/12	19-JUL-1990	14:19:28.45
P39G.DFL;1	4/6	12-JUN-1990	12:10:44.87
P39G.FOR;1	12/12	5-APR-1989	15:06:39.86
P39G.LNK;1	9/9	8-JAN-1991	00:00:00.00
P40G.COM;1	2/3	12-JUN-1990	08:34:12.04
P40G.CPR;1	2/12	19-JUL-1990	14:19:30.29
P40G.DFL;1	4/6	12-JUN-1990	12:10:45.96
P40G.FOR;1	9/9	28-JUL-1989	15:35:49.14
P40G.LNK;1	9/9	8-JAN-1991	00:00:00.00
P41G.FOR;1	15/15	11-OCT-1989	15:26:19.91
PARAM.EXT;1	1/3	27-SEP-1988	11:10:50.52
PARAMS.FOR;1	9/9	30-JUL-1988	13:22:51.47
PARM11.EXT;1	22/24	5-APR-1989	12:30:46.33
PARM22.EXT;1	1/3	7-NOV-1988	10:28:26.03
PARM24.EXT;1	1/3	7-NOV-1988	16:59:32.21
PARM3.EXT;1	4/6	28-APR-1989	13:52:42.98
PARM4.EXT;1	7/9	19-APR-1989	14:02:34.99
PARM7.EXT;1	13/15	7-APR-1989	14:06:38.23
PBLMIX.FOR;1	11/12	5-APR-1989	11:42:01.74
PERTV.EXT;1	1/3	21-JUN-1988	08:09:46.85
PF1.EXT;1	3/3	27-JUN-1988	14:21:35.69
PF11.EXT;1	1/3	16-SEP-1988	12:19:11.54
PF19.EXT;1	1/3	15-SEP-1988	12:23:18.49
PF42.EXT;1	1/3	16-SEP-1988	11:12:02.13
PF56.EXT;1	1/3	16-SEP-1988	11:12:00.91
PF6.EXT;1	3/3	26-JUL-1988	15:30:31.99
PFILE6.EXT;1	3/3	31-OCT-1988	15:06:17.26
PFMFIN.EXT;1	5/6	25-OCT-1988	15:15:38.28
POIMET.FOR;1	5/6	6-APR-1989	08:29:34.45
POLY.FOR;1	5/6	2-NOV-1988	09:32:32.10
PONSEL.FOR;1	11/12	12-JUN-1989	14:07:33.22
POW.FOR;1	5/6	5-APR-1989	12:34:44.27
PRES.EXT;1	1/3	25-JUN-1988	11:06:17.80
PRIMES.FOR;1	6/6	7-APR-1989	14:03:37.23
PRNTGRD.FOR;1	6/6	11-MAY-1989	07:57:08.46
PROCES.EXT;1	11/12	19-JAN-1989	15:42:59.20
PROCMB.FOR;1	52/60	30-JUL-1990	15:32:54.29
PROFIL.EXT;1	1/3	23-AUG-1988	11:59:02.31

PROFIL.FOR;1	9/9	5-APR-1989	11:54:22.15
PROJEC.FOR;1	16/18	5-APR-1989	12:34:50.89
PSHIFT.FOR;1	3/3	30-JUL-1988	13:30:20.91
PSIM.FOR;1	2/3	27-NOV-1988	12:34:21.34
PTOZ.FOR;1	2/3	27-SEP-1988	14:06:12.38
PTSHFT.FOR;1	5/6	6-APR-1989	16:50:59.00
QFIELD.FOR;1	5/6	19-JAN-1989	13:13:09.37
QFLUX.EXT;1	1/3	23-JUN-1988	14:55:45.76
QFLUX.FOR;1	6/6	27-NOV-1988	12:34:22.57
QFLUX8.FOR;1	5/6	10-APR-1989	10:33:24.50
QFORM.FOR;1	2/3	27-SEP-1988	10:19:04.59
QHIST.EXT;1	1/3	23-AUG-1988	12:00:24.54
QMULUS.EXT;1	1/3	23-AUG-1988	12:29:57.73
RADII.EXT;1	3/3	5-APR-1989	12:18:20.49
RADLW8.FOR;1	3/3	10-APR-1989	10:22:58.63
RADLWV.FOR;1	2/3	27-NOV-1988	12:34:23.80
RADPFL.FOR;1	10/12	27-SEP-1988	14:06:17.56
RADRAG.FOR;1	11/12	7-APR-1989	14:03:45.43
RADTIM.FOR;1	7/9	26-JUL-1988	17:19:47.02
RADVAR.EXT;1	2/3	26-JUL-1988	16:59:51.91
RAW.EXT;1	8/9	5-APR-1989	12:18:21.41
RAWSND.EXT;1	1/3	1-JUL-1988	15:17:34.00
RBCLIP.FOR;1	4/6	26-OCT-1988	09:53:58.15
RDCONV.FOR;1	27/27	3-NOV-1988	16:48:43.01
RDDIFF.FOR;1	6/6	5-APR-1989	09:46:47.72
RDEMIS.FOR;1	6/6	6-APR-1989	08:30:13.73
RDHTS.FOR;1	18/18	5-APR-1989	12:34:58.02
RDIM.FOR;1	11/12	6-APR-1989	08:30:40.44
RDIMET.FOR;1	8/9	9-DEC-1988	15:09:20.72
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RDPFMF.FOR;1	5/6	26-APR-1989	14:27:36.84
RDPLOT.FOR;1	7/9	5-APR-1989	12:17:57.68
RDPRM2.FOR;1	7/9	25-JUL-1988	14:14:20.59
RDPTCS.FOR;1	7/9	9-OCT-1989	00:00:00.00
RDSAPT.FOR;1	11/12	6-APR-1989	10:13:32.06
RDSPC.FOR;1	6/6	5-APR-1989	15:11:59.66
RDSRFM.FOR;1	15/15	27-NOV-1988	12:34:25.14
RDSTAK.FOR;1	12/12	17-NOV-1988	17:58:08.29
RDTFAC.FOR;1	26/27	19-JAN-1990	11:10:38.87
RDWIND.FOR;1	7/9	5-APR-1989	09:47:52.94
RDWNDM.FOR;1	12/12	27-NOV-1988	12:34:26.71
READIN11.FOR;1	10/12	5-APR-1989	12:35:10.99
REFRSH.FOR;1	11/12	5-APR-1989	12:35:16.78
REPORT.FOR;1	10/12	5-APR-1989	12:35:22.46
RESIST.EXT;1	2/3	1-MAR-1989	09:29:07.74
RLEVEL.FOR;1	3/3	30-JUL-1988	13:22:13.06
RST.FOR;1	29/30	3-MAR-1989	15:08:55.79
RTIMOD.FOR;1	120/120	9-APR-1990	11:07:19.07
RTSHIM.EXT;1	2/3	21-APR-1988	12:43:28.83
RWND25.FOR;1	7/9	6-JAN-1989	11:54:24.51
SATEMP.FOR;1	3/3	26-APR-1989	13:12:42.35
SEGSUB.FOR;1	5/6	26-OCT-1988	09:51:52.73
SETBCS.FOR;1	30/30	7-APR-1989	14:03:58.58
SETCLK.FOR;1	4/6	26-APR-1989	13:09:45.66
SETUP.FOR;1	6/6	19-APR-1989	14:03:11.62

SETUP11.FOR;1	16/18	5-APR-1989	12:35:29.98
SETUP7.FOR;1	12/12	7-APR-1989	14:04:05.46
SFCHRS.FOR;1	14/15	16-AUG-1988	13:41:44.62
SFCLEV.FOR;1	9/9	4-AUG-1988	15:11:03.09
SFCMET.EXT;1	1/3	23-AUG-1988	12:29:40.29
SFCMET.FOR;1	5/6	23-AUG-1988	12:22:34.26
SFCMT8.EXT;1	1/3	10-APR-1989	10:23:41.02
SIGMAT.FOR;1	8/9	7-APR-1989	14:04:15.59
SLMAT.FOR;1	18/18	5-APR-1989	12:35:38.64
SLPRES.FOR;1	8/9	7-APR-1989	14:04:21.86
SMOOTH.FOR;1	5/6	7-APR-1989	14:04:29.83
SMUTHR.FOR;1	8/9	3-FEB-1989	15:38:41.39
SOLENG.FOR;1	12/12	20-JUL-1989	10:45:38.79
SOLGRP.EXT;1	3/3	31-OCT-1988	09:43:41.45
SOLPRM.EXT;1	10/12	26-JUN-1987	11:53:52.14
SOLVDH.FOR;1	30/30	7-APR-1989	14:04:59.06
SOLVER.FOR;1	31/33	7-APR-1989	14:05:18.34
SOLVUV.FOR;1	71/72	7-APR-1989	14:05:49.12
SORTAI.FOR;1	3/3	1-JUL-1988	12:34:33.69
SORTAR.FOR;1	3/3	1-JUL-1988	12:34:35.13
SPCBUF.EXT;1	1/3	23-AUG-1988	09:06:53.35
SPCEXP.FOR;1	6/6	29-OCT-1988	12:30:43.32
SPCFAC.EXT;1	3/3	9-JAN-1990	12:55:47.71
SPCLIS.EXT;1	3/3	6-APR-1989	13:10:05.36
SPCVAR.EXT;1	1/3	23-AUG-1988	09:07:11.42
SRFILE.EXT;1	1/3	14-NOV-1988	17:11:53.34
SRTREC.FOR;1	12/12	22-NOV-1988	14:06:20.58
STABLE.FOR;1	6/6	2-DEC-1988	10:51:24.64
STATNS.EXT;1	4/6	5-APR-1989	12:18:22.27
STAWAT.FOR;1	9/9	8-DEC-1988	13:28:28.06
STBVAR.EXT;1	1/3	5-DEC-1988	08:13:38.68
STINFO.FOR;1	4/6	12-APR-1989	10:11:31.24
STKDAT.EXT;1	2/3	15-NOV-1988	08:16:20.58
STKDAT2.EXT;1	2/3	24-JAN-1989	10:04:04.06
STKDATA.EXT;1	2/3	24-JAN-1989	09:56:07.56
STKHSH.FOR;1	7/9	10-APR-1989	16:59:15.76
STKMRG.FOR;1	5/6	28-MAR-1989	17:20:06.74
STUNST.EXT;1	3/3	26-JUL-1988	17:24:19.94
SURDAT.EXT;1	4/6	19-JAN-1989	15:38:17.41
SURMET.EXT;1	4/6	19-JAN-1989	15:22:27.77
SWAPEM.FOR;1	4/6	24-JAN-1989	13:21:02.96
SWAPSTK.FOR;1	4/6	12-JUN-1989	14:08:19.38
TDPGRD.FOR;1	3/3	23-AUG-1988	12:23:29.54
TIMEBM.FOR;1	6/6	22-JUN-1989	08:32:38.76
TIMEBT.FOR;1	5/6	5-APR-1989	09:48:50.19
TIMEIM.FOR;1	5/6	5-APR-1989	15:01:19.01
TMPRAL.FOR;1	3/3	19-JAN-1989	13:13:40.37
TOPSET.FOR;1	1/3	19-JAN-1989	13:14:15.35
TRCONC.EXT;1	1/3	1-NOV-1988	13:07:04.35
TRNSEM.FOR;1	8/9	6-APR-1989	08:29:08.45
TSCALE.FOR;1	3/3	6-APR-1989	15:32:10.40
TSHDIM.EXT;1	2/3	25-MAY-1988	11:34:00.36
TSHIFT.FOR;1	4/6	23-AUG-1988	12:26:43.84
TSMUTH.FOR;1	4/6	19-JAN-1989	13:14:40.13
TSTFN.FOR;1	9/9	5-APR-1989	12:35:43.15

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U1.EXT;1                  1/3       27-FEB-1989 10:40:40.45
UAGRID.EXT;1              1/3       23-AUG-1988 12:07:56.43
UNITNOS.EXT;1             5/6        5-APR-1989 12:18:23.21
UNSTBL.FOR;1              8/9        5-DEC-1988 11:18:01.27
UNSWAT.FOR;1              9/9        2-DEC-1988 08:32:05.97
UV11.FOR;1               26/27      11-APR-1989 10:53:28.05
VERMET.FOR;1              9/9        9-APR-1989 13:23:15.75
VOCLIS.EXT;1              2/3       28-NOV-1988 00:00:00.00
VOLCAL.FOR;1              2/3        2-NOV-1988 09:35:10.93
VOLFLX.FOR;1             31/33      19-JAN-1989 13:44:24.59
VPROFL.FOR;1             12/12      23-AUG-1988 12:28:35.55
VRSPBM.FOR;1              4/6        6-APR-1989 08:25:24.79
VRSPIM.FOR;1              4/6        5-APR-1989 15:03:21.88
WATGRD.EXT;1              1/3       26-JUL-1988 15:35:30.05
WEIGHT.FOR;1              5/6       27-NOV-1988 12:34:36.90
WEIGHT11.FOR;1            6/6        5-APR-1989 12:35:55.74
WGHTFN.EXT;1              2/3        6-APR-1989 15:24:17.39
WHICH1.FOR;1              3/3       26-JUL-1988 17:27:06.41
WNDFIX.FOR;1              5/6       18-JAN-1989 10:48:44.14
WRBC.FOR;1               10/12      22-AUG-1989 11:08:41.89
WRBMAT.FOR;1             11/12      24-AUG-1989 10:50:35.65
WRBTRK.FOR;1              6/6       31-JUL-1989 12:54:13.17
WRHDBM.FOR;1             17/18      28-JUL-1989 15:36:20.90
WRHDBT.FOR;1             10/12      27-JUL-1989 17:33:26.82
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WRIC.FOR;1                9/9       22-AUG-1989 11:02:52.57
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WRPLOT.FOR;1              8/9        5-APR-1989 12:18:05.16
WRTOBS.FOR;1              8/9       11-APR-1989 09:53:44.01
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ZO.EXT;1                  1/3       26-JUL-1988 15:35:53.55
ZEN.FOR;1                24/24        8-SEP-1989 13:23:25.57
ZGUTS.EXT;1               3/3       30-MAY-1987 10:29:46.04
ZONEIT.FOR;1              3/3       19-APR-1989 14:03:25.30
ZT.EXT;1                  1/3       22-JUN-1988 15:09:54.75
ZTHAT.EXT;1               1/3       22-JUN-1988 00:00:00.00
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P07G.LNK;1 copied to _$3$MUA6:[]P07G.LNK;1 (114 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P10G.COM;1 copied to _$3$MUA6:[]P10G.COM;1 (39 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P16G.CPR;1 copied to _$3$MUA6:[]P16G.CPR;1 (3 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P29G.DFL;1 copied to _$3$MUA6:[]P29G.DFL;1 (36 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P31G.DFL;1 copied to _$3$MUA6:[]P31G.DFL;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P31G.FOR;1 copied to _$3$MUA6:[]P31G.FOR;1 (112 records)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]P33G.CPR;1 copied to _$3$MUA6:[]P33G.CPR;1 (1 record)
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%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]U1.EXT;1 copied to _$3$MUA6:[]U1.EXT;1 (5 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]UAGRID.EXT;1 copied to _$3$MUA6:[]UAGRID.EXT;1 (10 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]UNITNOS.EXT;1 copied to _$3$MUA6:[]UNITNOS.EXT;1 (76 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]UNSTBL.FOR;1 copied to _$3$MUA6:[]UNSTBL.FOR;1 (133 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]UNSWAT.FOR;1 copied to _$3$MUA6:[]UNSWAT.FOR;1 (133 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]UV11.FOR;1 copied to _$3$MUA6:[]UV11.FOR;1 (413 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VERMET.FOR;1 copied to _$3$MUA6:[]VERMET.FOR;1 (131 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VOCLIS.EXT;1 copied to _$3$MUA6:[]VOCLIS.EXT;1 (21 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VOLCAL.FOR;1 copied to _$3$MUA6:[]VOLCAL.FOR;1 (42 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VOLFLX.FOR;1 copied to _$3$MUA6:[]VOLFLX.FOR;1 (418 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VPROFL.FOR;1 copied to _$3$MUA6:[]VPROFL.FOR;1 (197 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VRSPBM.FOR;1 copied to _$3$MUA6:[]VRSPBM.FOR;1 (61 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]VRSPIM.FOR;1 copied to _$3$MUA6:[]VRSPIM.FOR;1 (58 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WATGRD.EXT;1 copied to _$3$MUA6:[]WATGRD.EXT;1 (11 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WEIGHT.FOR;1 copied to _$3$MUA6:[]WEIGHT.FOR;1 (73 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WEIGHT11.FOR;1 copied to _$3$MUA6:[]WEIGHT11.FOR;1 (112 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WGHTFN.EXT;1 copied to _$3$MUA6:[]WGHTFN.EXT;1 (16 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WHICH1.FOR;1 copied to _$3$MUA6:[]WHICH1.FOR;1 (60 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WNDFIX.FOR;1 copied to _$3$MUA6:[]WNDFIX.FOR;1 (104 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRBC.FOR;1 copied to _$3$MUA6:[]WRBC.FOR;1 (188 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRBMAT.FOR;1 copied to _$3$MUA6:[]WRBMAT.FOR;1 (173 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRBTRK.FOR;1 copied to _$3$MUA6:[]WRBTRK.FOR;1 (95 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRHDBM.FOR;1 copied to _$3$MUA6:[]WRHDBM.FOR;1 (231 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRHDBT.FOR;1 copied to _$3$MUA6:[]WRHDBT.FOR;1 (135 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRHDIM.FOR;1 copied to _$3$MUA6:[]WRHDIM.FOR;1 (218 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRIC.FOR;1 copied to _$3$MUA6:[]WRIC.FOR;1 (149 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRIMET.FOR;1 copied to _$3$MUA6:[]WRIMET.FOR;1 (117 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRPLOT.FOR;1 copied to _$3$MUA6:[]WRPLOT.FOR;1 (140 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]WRTOBS.FOR;1 copied to _$3$MUA6:[]WRTOBS.FOR;1 (154 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]XVCCLC.FOR;1 copied to _$3$MUA6:[]XVCCLC.FOR;1 (88 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZO.EXT;1 copied to _$3$MUA6:[]ZO.EXT;1 (3 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZEN.FOR;1 copied to _$3$MUA6:[]ZEN.FOR;1 (417 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZGUTS.EXT;1 copied to _$3$MUA6:[]ZGUTS.EXT;1 (41 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZONEIT.FOR;1 copied to _$3$MUA6:[]ZONEIT.FOR;1 (47 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZT.EXT;1 copied to _$3$MUA6:[]ZT.EXT;1 (17 records)
%COPY-S-COPIED, $2$DUA58:[ROMLIB.PROCES]ZTHAT.EXT;1 copied to _$3$MUA6:[]ZTHAT.EXT;1 (11 records)
%COPY-S-NEWFILES, 544 files created
$ !
$ SHOW DEV / FULL  STAPE
Magtape $3$MUA6: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    0    Operations completed              17828
    Owner process        "BATCH_695"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        20200E12    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size                2048
    Volume label            "102322"    Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status             Process    Mount count                           1
    ACP process name      "MUA6CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
```

```
$ MOUNT / NOWRITE STAPE 102322
%MOUNT-I-MOUNTED, 102322 mounted on _$3$MUA6: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]
Directory _$3$MUA6:[]

ADATE.FOR;1              1/1       23-MAY-1989 00:00:00.00
ADVSFL.EXT;1             1/1        7-NOV-1988 00:00:00.00
ASORT.FOR;1              1/1        5-SEP-1989 00:00:00.00
BCFILE.EXT;1             1/1       14-MAR-1988 00:00:00.00
BCPRCS.FOR;1             2/2       23-MAY-1989 00:00:00.00
BGBCFL.EXT;1             1/1       14-MAR-1988 00:00:00.00
BGBMFL.EXT;1             1/1       14-MAR-1988 00:00:00.00
BGBTFL.EXT;1             1/1        1-NOV-1988 00:00:00.00
BGGUTS.EXT;1             8/8       14-MAR-1988 00:00:00.00
BGICCN.EXT;1             1/1       14-MAR-1988 00:00:00.00
BIGGAM.FOR;1             7/7        6-SEP-1989 00:00:00.00
BLKMOD.FOR;1             4/4       22-AUG-1989 00:00:00.00
BMCOEF.EXT;1             1/1       14-MAR-1988 00:00:00.00
BMFILE.EXT;1             1/1        9-NOV-1988 00:00:00.00
BMPRCS.FOR;1             3/3       23-MAY-1989 00:00:00.00
BTFILE.EXT;1             1/1        7-NOV-1988 00:00:00.00
BTPRCS.FOR;1             2/2       23-MAY-1989 00:00:00.00
CELLM.FOR;1              2/2       19-AUG-1989 00:00:00.00
CHEMIN.EXT;1             1/1        7-NOV-1988 00:00:00.00
CHEMSW.EXT;1             1/1       14-MAR-1988 00:00:00.00
CLOCK1.FOR;1             2/2       23-MAY-1989 00:00:00.00
CLOCK2.FOR;1             2/2       23-MAY-1989 00:00:00.00
CNFILE.EXT;1             1/1       14-MAR-1988 00:00:00.00
CNPRCS.FOR;1             2/2       23-MAY-1989 00:00:00.00
CONFAC.EXT;1             1/1       14-MAR-1988 00:00:00.00
CPUTIM.FOR;1             1/1       11-SEP-1989 00:00:00.00
CSPHRX.EXT;1            35/35      14-MAR-1988 00:00:00.00
DATTIM.FOR;1             1/1       23-MAY-1989 00:00:00.00
DIMENS.EXT;1             1/1       29-SEP-1988 00:00:00.00
DUMPHD.FOR;1             2/2       19-AUG-1989 00:00:00.00
ERRGT.EXT;1              1/1       14-MAR-1988 00:00:00.00
FLNAMS.EXT;1             1/1        8-MAY-1988 00:00:00.00
FSK1P1.FOR;1             2/2       23-MAY-1989 00:00:00.00
GTCOEF.EXT;1             1/1       14-MAR-1988 00:00:00.00
GTILDE.FOR;1             2/2       23-MAY-1989 00:00:00.00
HDFMTS.EXT;1             1/1       29-NOV-1988 00:00:00.00
HDSTAV.EXT;1             2/2       14-MAR-1988 00:00:00.00
HEADBC.EXT;1             2/2       14-MAR-1988 00:00:00.00
HEADBM.EXT;1             3/3       21-JUN-1989 00:00:00.00
HEADBT.EXT;1             2/2       14-MAR-1988 00:00:00.00
HEADCN.EXT;1             2/2       14-MAR-1988 00:00:00.00
HEADIC.EXT;1             2/2       14-MAR-1988 00:00:00.00
HEADIN.EXT;1             2/2       14-MAR-1988 00:00:00.00
HSTEP.FOR;1              6/6       23-MAY-1989 00:00:00.00
HSTEPS.EXT;1             1/1       14-MAR-1988 00:00:00.00
ICFILE.EXT;1             1/1       14-MAR-1988 00:00:00.00
ICPRCS.FOR;1             2/2       23-MAY-1989 00:00:00.00
INDEX1.FOR;1             1/1       23-MAY-1989 00:00:00.00
INIRUN.FOR;1             4/4       28-AUG-1989 00:00:00.00
IOCL.FOR;1               1/1       23-MAY-1989 00:00:00.00
```

JFILE2.FOR;1	2/2	19-AUG-1989 00:00:00.00
JFILE5.FOR;1	2/2	17-AUG-1989 00:00:00.00
JFILE6.FOR;1	2/2	17-AUG-1989 00:00:00.00
JULIAN.FOR;1	1/1	23-MAY-1989 00:00:00.00
JUNIT.FOR;1	1/1	23-MAY-1989 00:00:00.00
LGBMFL.EXT;1	1/1	10-NOV-1988 00:00:00.00
LILGAM.FOR;1	11/11	22-AUG-1989 00:00:00.00
LILGSP.EXT;1	1/1	14-MAR-1988 00:00:00.00
LUNITS.EXT;1	1/1	6-JUN-1988 00:00:00.00
LVNAME.EXT;1	1/1	14-MAR-1988 00:00:00.00
NDXSPC.EXT;1	1/1	14-MAR-1988 00:00:00.00
NEWICS.FOR;1	4/4	15-AUG-1989 00:00:00.00
NROOTS.EXT;1	1/1	14-MAR-1988 00:00:00.00
OPBCON.FOR;1	2/2	19-AUG-1989 00:00:00.00
OPBMAT.FOR;1	2/2	23-MAY-1989 00:00:00.00
OPBTRK.FOR;1	2/2	23-MAY-1989 00:00:00.00
OPCONC.FOR;1	3/3	23-MAY-1989 00:00:00.00
OPICON.FOR;1	2/2	23-MAY-1989 00:00:00.00
OPSTAV.FOR;1	5/5	23-MAY-1989 00:00:00.00
OPWRCN.FOR;1	4/4	23-MAY-1989 00:00:00.00
ORSPBC.FOR;1	1/1	23-MAY-1989 00:00:00.00
ORSPBM.FOR;1	1/1	23-MAY-1989 00:00:00.00
ORSPIC.FOR;1	1/1	23-MAY-1989 00:00:00.00
POBCON.FOR;1	2/2	23-MAY-1989 00:00:00.00
POBTRK.FOR;1	2/2	23-MAY-1989 00:00:00.00
POCONC.FOR;1	2/2	23-MAY-1989 00:00:00.00
POICON.FOR;1	2/2	23-MAY-1989 00:00:00.00
POMXBM.FOR;1	2/2	23-MAY-1989 00:00:00.00
POSTAV.FOR;1	2/2	15-AUG-1989 00:00:00.00
PQ1.FOR;1	5/5	22-AUG-1989 00:00:00.00
PQCOEF.FOR;1	3/3	23-MAY-1989 00:00:00.00
PRGSMY.FOR;1	7/7	5-SEP-1989 00:00:00.00
RATED.FOR;1	3/3	23-MAY-1989 00:00:00.00
RDBCON.FOR;1	4/4	22-AUG-1989 00:00:00.00
RDBMAT.FOR;1	4/4	22-AUG-1989 00:00:00.00
RDBT.FOR;1	4/4	17-AUG-1989 00:00:00.00
RDBTRK.FOR;1	3/3	22-AUG-1989 00:00:00.00
RDCHAR.FOR;1	1/1	23-MAY-1989 00:00:00.00
RDCONC.FOR;1	3/3	22-AUG-1989 00:00:00.00
RDFILE.FOR;1	1/1	23-MAY-1989 00:00:00.00
RDHDBM.FOR;1	3/3	19-AUG-1989 00:00:00.00
RDICON.FOR;1	3/3	22-AUG-1989 00:00:00.00
RDMXBM.FOR;1	3/3	17-AUG-1989 00:00:00.00
RDSTAV.FOR;1	3/3	23-MAY-1989 00:00:00.00
RKLEVS.EXT;1	1/1	14-MAR-1988 00:00:00.00
ROWSCT.EXT;1	1/1	14-MAR-1988 00:00:00.00
RTCONS.EXT;1	2/2	15-AUG-1989 00:00:00.00
RTPHO.FOR;1	2/2	23-MAY-1989 00:00:00.00
RTSET.FOR;1	3/3	23-MAY-1989 00:00:00.00
RTSHBC.EXT;1	1/1	14-MAR-1988 00:00:00.00
RTSHBM.EXT;1	1/1	14-MAR-1988 00:00:00.00
RTSHBT.EXT;1	1/1	14-MAR-1988 00:00:00.00
RTSHCN.EXT;1	1/1	14-MAR-1988 00:00:00.00

RTSHIC.EXT;1	1/1	14-MAR-1988	00:00:00.00
RUNMGR.FOR;1	5/5	22-AUG-1989	00:00:00.00
RUNTMS.EXT;1	1/1	6-SEP-1989	00:00:00.00
SPNAME.EXT;1	1/1	14-MAR-1988	00:00:00.00
STOPFL.EXT;1	1/1	14-MAR-1988	00:00:00.00
SUBID.EXT;1	1/1	6-JUN-1988	00:00:00.00
TEXTPT.EXT;1	1/1	19-AUG-1989	00:00:00.00
TILDE.EXT;1	1/1	14-MAR-1988	00:00:00.00
TIMER.FOR;1	2/2	6-SEP-1989	00:00:00.00
TSHDBC.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDBM.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDBT.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDCN.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDIC.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDMD.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSHDSV.EXT;1	1/1	14-MAR-1988	00:00:00.00
TSTEPS.EXT;1	2/2	19-AUG-1989	00:00:00.00
UNITIO.EXT;1	1/1	14-MAR-1988	00:00:00.00
WRCHAR.FOR;1	1/1	23-MAY-1989	00:00:00.00
WRCONC.FOR;1	2/2	22-AUG-1989	00:00:00.00
WRFILE.FOR;1	1/1	23-MAY-1989	00:00:00.00
WRSTAV.FOR;1	8/8	23-MAY-1989	00:00:00.00
ZADVSL.EXT;1	1/1	14-MAR-1988	00:00:00.00
AAAREADME.TXT;1	1/1	16-OCT-1990	00:00:00.00
ARMERG.COM;1	2/2	11-JUN-1990	00:00:00.00
ARMERG.DFL;1	1/1	16-OCT-1990	00:00:00.00
ARMERG.FOR;1	4/4	3-APR-1989	00:00:00.00
BIDBUF.EXT;1	1/1	14-JUL-1988	00:00:00.00
BUOY_CRCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
BUOY_CRCT.DOC;1	4/4	29-JAN-1990	00:00:00.00
BUOY_CRCT.FOR;1	1/1	6-DEC-1988	00:00:00.00
BUOY_INTP.DFL;1	1/1	16-OCT-1990	00:00:00.00
BUOY_INTP.DOC;1	5/5	30-JAN-1990	00:00:00.00
BUOY_INTP.FOR;1	11/11	8-JUN-1989	00:00:00.00
BUOY_PROCESSING.DOC;1	3/3	22-JUN-1990	00:00:00.00
BUOY_RFMT.DFL;1	1/1	16-OCT-1990	00:00:00.00
BUOY_RFMT.DOC;1	5/5	30-JAN-1990	00:00:00.00
BUOY_RFMT.FOR;1	2/2	7-OCT-1988	00:00:00.00
BUOY_STAT.DFL;1	1/1	16-OCT-1990	00:00:00.00
BUOY_STAT.DOC;1	4/4	7-FEB-1990	00:00:00.00
BUOY_STAT.FOR;1	6/6	23-NOV-1988	00:00:00.00
BUOY_WNDW.DFL;1	1/1	16-OCT-1990	00:00:00.00
BUOY_WNDW.DOC;1	6/6	26-JAN-1990	00:00:00.00
BUOY_WNDW.FOR;1	3/3	8-JUN-1989	00:00:00.00
CLIPIT.FOR;1	1/1	14-NOV-1984	00:00:00.00
CLIPIT_W.FOR;5	2/2	22-AUG-1988	00:00:00.00
COLORS.EXT;4	1/1	12-SEP-1988	00:00:00.00
COPYTAPE.DFL;1	1/1	16-OCT-1990	00:00:00.00
COPYTAPE.DOC;1	4/4	9-FEB-1990	00:00:00.00
COPYTAPE.FOR;1	1/1	14-OCT-1988	00:00:00.00
COUNT_STNPERHR.COM;1	1/1	16-MAR-1990	00:00:00.00
COUNT_STNPERHR.DFL;1	1/1	16-OCT-1990	00:00:00.00
COUNT_STNPERHR.DOC;1	4/4	9-FEB-1990	00:00:00.00
COUNT_STNPERHR.FOR;1	1/1	2-FEB-1989	00:00:00.00
CVCHEM.COM;1	1/1	25-SEP-1989	00:00:00.00

CVCHEM.DFL;1	1/1	16-OCT-1990	00:00:00.00
CVCHEM.DOC;1	8/8	25-SEP-1989	00:00:00.00
CVCHEM.FOR;1	2/2	25-SEP-1989	00:00:00.00
DEL.COM;1	1/1	2-AUG-1988	00:00:00.00
DEL.DFL;1	1/1	16-OCT-1990	00:00:00.00
DEL.FOR;1	2/2	12-JUN-1990	00:00:00.00
DEVICE.EXT;4	1/1	3-OCT-1989	00:00:00.00
DFLFILES.DAT;2	2/2	21-JUN-1990	00:00:00.00
DOCFILES.DAT;2	2/2	21-JUN-1990	00:00:00.00
DRAW3D.FOR;1	1/1	14-NOV-1984	00:00:00.00
FINDCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
FINDCT.DOC;1	3/3	7-NOV-1989	00:00:00.00
FINDCT.FOR;1	1/1	27-MAR-1989	00:00:00.00
FINDPT.DFL;1	1/1	16-OCT-1990	00:00:00.00
FINDPT.DOC;1	3/3	6-NOV-1989	00:00:00.00
FINDPT.FOR;1	1/1	19-JUN-1989	00:00:00.00
FORFILES.DAT;3	1/1	21-JUN-1990	00:00:00.00
FORFILES_COMMENTS.DAT;4	2/2	22-JUN-1990	00:00:00.00
GEOPOL.FOR;1	4/4	17-JUL-1990	00:00:00.00
GEOPOL_ASCII.FOR;6	4/4	18-JUL-1990	00:00:00.00
GEOPOL_BIN.FOR;6	4/4	11-JUL-1990	00:00:00.00
GETHUE.FOR;8	9/9	11-JUL-1990	00:00:00.00
GETTDEV.FOR;8	4/4	4-APR-1991	00:00:00.00
HDGRAF2.FOR;5	2/2	13-JUL-1988	00:00:00.00
HODO3D.FOR;1	3/3	12-JUL-1988	00:00:00.00
HUES.EXT;2	1/1	5-SEP-1989	00:00:00.00
IHSHFT.FOR;1	1/1	6-FEB-1987	00:00:00.00
INIT3D.FOR;4	1/1	21-NOV-1984	00:00:00.00
INTPRM.EXT;1	2/2	28-JUL-1988	00:00:00.00
LEN.LIST;2	1/1	14-JUN-1990	00:00:00.00
LINE_C.DFL;1	1/1	16-OCT-1990	00:00:00.00
LINE_C.FOR;1	1/1	28-JAN-1987	00:00:00.00
LINE_CR.DFL;1	1/1	16-OCT-1990	00:00:00.00
LINE_CR.FOR;1	3/3	25-JUL-1986	00:00:00.00
LISTNC.FOR;1	1/1	12-JUL-1988	00:00:00.00
LLWBUF.EXT;2	1/1	6-JUL-1988	00:00:00.00
MAKOPY.FOR;1	1/1	12-JUL-1988	00:00:00.00
MASK.COM;1	1/1	18-MAY-1990	00:00:00.00
MASK.DFL;1	1/1	16-OCT-1990	00:00:00.00
MASK.FOR;1	8/8	5-APR-1989	00:00:00.00
MBEXTR.COM;1	1/1	9-NOV-1989	00:00:00.00
MBEXTR.DFL;1	1/1	16-OCT-1990	00:00:00.00
MBEXTR.DOC;1	4/4	30-AUG-1989	00:00:00.00
MBEXTR.FOR;1	3/3	8-SEP-1989	00:00:00.00
MBMERGE.COM;1	1/1	9-NOV-1989	00:00:00.00
MBMERGE.DFL;1	1/1	16-OCT-1990	00:00:00.00
MBMERGE.DOC;1	5/5	8-SEP-1989	00:00:00.00
MBMERGE.FOR;1	2/2	3-FEB-1989	00:00:00.00
MOVE3D.FOR;1	1/1	14-NOV-1984	00:00:00.00
NBIOMASS.COM;1	1/1	9-APR-1990	00:00:00.00
NBIOMASS.DFL;1	1/1	16-OCT-1990	00:00:00.00
NBIOMASS.SAS;1	9/9	22-SEP-1989	00:00:00.00
NUMTXT.FOR;1	4/4	12-JUL-1988	00:00:00.00
OBJLIB.OLB;2	20/20	14-NOV-1984	00:00:00.00
OFFTAPE.COM;1	1/1	26-JAN-1990	00:00:00.00

OFFTAPE.DFL;1	1/1	16-OCT-1990	00:00:00.00
OFFTAPE.DOC;1	4/4	20-FEB-1990	00:00:00.00
OFFTAPE.FOR;1	3/3	1-NOV-1988	00:00:00.00
OPENDEV.FOR;50	8/8	9-APR-1991	00:00:00.00
PARAMS.EXT;9	1/1	5-APR-1989	00:00:00.00
PFMFCOPY.COM;1	2/2	12-NOV-1987	00:00:00.00
PFMFCOPY.DFL;1	1/1	16-OCT-1990	00:00:00.00
PFMFCOPY.FOR;1	1/1	28-DEC-1987	00:00:00.00
PILLAR.FOR;1	1/1	14-NOV-1984	00:00:00.00
PILRHP.FOR;1	1/1	14-NOV-1984	00:00:00.00
PIXCEL.EXT;3	1/1	20-OCT-1989	00:00:00.00
PLOTHP.FOR;1	1/1	14-NOV-1984	00:00:00.00
PLOTTK.FOR;1	1/1	14-NOV-1984	00:00:00.00
PNT3D.FOR;1	1/1	21-NOV-1984	00:00:00.00
PREPROC.LIS;3	1/1	7-JUN-1990	00:00:00.00
PREPROCS.LIS;6	4/4	19-NOV-1990	00:00:00.00
PREPROCS_FOR.LIS;4	2/2	7-NOV-1990	00:00:00.00
PREPROC_SEARCH.COM;3	1/1	12-JUN-1990	00:00:00.00
PTEXTR.COM;1	1/1	11-JUN-1990	00:00:00.00
PTEXTR.DFL;1	1/1	16-OCT-1990	00:00:00.00
PTEXTR.DOC;1	9/9	9-OCT-1989	00:00:00.00
PTEXTR.FOR;1	3/3	27-JUL-1989	00:00:00.00
PTMERG.COM;1	1/1	11-JUN-1990	00:00:00.00
PTMERG.DFL;1	1/1	16-OCT-1990	00:00:00.00
PTMERG.DOC;1	4/4	5-SEP-1989	00:00:00.00
PTMERG.FOR;1	2/2	31-MAY-1989	00:00:00.00
QAINFL.CBK;9	1/1	6-MAR-1989	00:00:00.00
QAINFL2.CBK;1	1/1	11-MAY-1989	00:00:00.00
QAINPT.FOR;1	2/2	11-MAY-1989	00:00:00.00
QALIS.EXT;3	1/1	6-MAR-1989	00:00:00.00
QAOSTFL.CBK;4	1/1	7-MAR-1989	00:00:00.00
QAOUTP.COM;1	1/1	11-MAY-1989	00:00:00.00
QAOUTP.DFL;1	1/1	16-OCT-1990	00:00:00.00
QAOUTP.DOC;1	6/6	6-NOV-1989	00:00:00.00
QAOUTP.FOR;1	2/2	6-NOV-1989	00:00:00.00
QARAOB2.FOR;12	3/3	19-JUL-1988	00:00:00.00
QASCFL.CBK;1	1/1	13-OCT-1987	00:00:00.00
QASCFL2.CBK;2	1/1	27-DEC-1989	00:00:00.00
QASRCE.COM;1	1/1	14-OCT-1987	00:00:00.00
QASRCE.DFL;1	1/1	16-OCT-1990	00:00:00.00
QASRCE.DOC;1	6/6	3-JAN-1990	00:00:00.00
QASRCE.FOR;1	2/2	27-DEC-1989	00:00:00.00
QASTACK.COM;1	1/1	6-FEB-1990	00:00:00.00
QASTACK.DFL;1	1/1	16-OCT-1990	00:00:00.00
QASTACK.DOC;1	4/4	22-MAR-1990	00:00:00.00
QASTACK.FOR;1	5/5	23-JAN-1990	00:00:00.00
QASTFL.CBK;5	1/1	7-MAR-1989	00:00:00.00
QASTPT.FOR;1	2/2	17-JAN-1990	00:00:00.00
QASTRT.FOR;1	3/3	23-JAN-1990	00:00:00.00
QATOPIN.CBK;3	1/1	9-MAR-1989	00:00:00.00
QATOPOT.CBK;3	1/1	9-MAR-1989	00:00:00.00
RDATE.FOR;1	1/1	9-DEC-1988	00:00:00.00
RDBUOY.FOR;1	1/1	7-JUN-1989	00:00:00.00
RDFRPT.FOR;1	7/7	27-JUL-1989	00:00:00.00
RDPTE3.FOR;1	4/4	9-MAR-1989	00:00:00.00

RDSRF2.FOR;1	10/10	17-OCT-1988	00:00:00.00
RECBUF.EXT;3	1/1	14-JUL-1988	00:00:00.00
RETFAC.DFL;1	1/1	16-OCT-1990	00:00:00.00
RETFAC.FOR;1	7/7	9-JAN-1990	00:00:00.00
RKUPDTCB4-2.FOR;1	3/3	20-OCT-1988	00:00:00.00
ROMREG.COM;1	1/1	12-AUG-1989	00:00:00.00
ROMREG.DFL;1	1/1	16-OCT-1990	00:00:00.00
ROMREG.SAS;1	4/4	12-AUG-1989	00:00:00.00
RWND_CAN_CLCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_CAN_CLCT.FOR;1	7/7	6-JUL-1989	00:00:00.00
RWND_END.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_END.FOR;1	3/3	4-AUG-1988	00:00:00.00
RWND_PROCESSING.DOC;1	5/5	29-JUL-1988	00:00:00.00
RWND_RFMT.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_RFMT.FOR;1	10/10	12-OCT-1988	00:00:00.00
RWND_US_CLCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_US_CLCT.FOR;1	6/6	9-NOV-1988	00:00:00.00
RWND_V2.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_V2.FOR;1	3/3	11-OCT-1988	00:00:00.00
RWND_WNDW.DFL;1	1/1	16-OCT-1990	00:00:00.00
RWND_WNDW.FOR;1	6/6	12-OCT-1988	00:00:00.00
SEANFL.EXT;7	1/1	24-FEB-1989	00:00:00.00
SETHUES.FOR;20	2/2	14-JAN-1991	00:00:00.00
SFCCAN_CLCT.COM;1	1/1	21-NOV-1989	00:00:00.00
SFCCAN_CLCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCCAN_CLCT.DOC;1	9/9	19-JAN-1990	00:00:00.00
SFCCAN_CLCT.FOR;1	11/11	18-JAN-1990	00:00:00.00
SFCCAN_WNDW.COM;1	1/1	27-NOV-1989	00:00:00.00
SFCCAN_WNDW.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCCAN_WNDW.DOC;1	8/8	22-JAN-1990	00:00:00.00
SFCCAN_WNDW.FOR;1	3/3	15-AUG-1988	00:00:00.00
SFCR_HRFILL.COM;1	1/1	21-FEB-1990	00:00:00.00
SFCR_HRFILL.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCR_HRFILL.DOC;1	7/7	21-FEB-1990	00:00:00.00
SFCR_HRFILL.FOR;1	2/2	10-MAR-1989	00:00:00.00
SFCUS_CLCT.COM;1	1/1	31-OCT-1989	00:00:00.00
SFCUS_CLCT.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCUS_CLCT.DOC;1	9/9	3-JAN-1990	00:00:00.00
SFCUS_CLCT.FOR;1	18/18	23-AUG-1989	00:00:00.00
SFCUS_CLD_INTP.COM;1	1/1	30-NOV-1989	00:00:00.00
SFCUS_CLD_INTP.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCUS_CLD_INTP.DOC;1	7/7	3-JAN-1990	00:00:00.00
SFCUS_CLD_INTP.FOR;1	6/6	10-OCT-1989	00:00:00.00
SFCUS_WNDW.COM;1	1/1	30-NOV-1989	00:00:00.00
SFCUS_WNDW.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFCUS_WNDW.DOC;1	8/8	9-JAN-1990	00:00:00.00
SFCUS_WNDW.FOR;1	3/3	15-AUG-1988	00:00:00.00
SFC_PROCESSING.DOC;1	4/4	10-MAY-1990	00:00:00.00
SFC_RFMT.COM;1	1/1	30-NOV-1989	00:00:00.00
SFC_RFMT.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFC_RFMT.DOC;1	6/6	3-JAN-1990	00:00:00.00
SFC_RFMT.FOR;1	2/2	15-AUG-1988	00:00:00.00
SFC_VRFY.COM;1	1/1	30-NOV-1989	00:00:00.00
SFC_VRFY.DFL;1	1/1	16-OCT-1990	00:00:00.00
SFC_VRFY.DOC;1	7/7	3-JAN-1990	00:00:00.00

SFC_VRFY.FOR;1	11/11	16-AUG-1988	00:00:00.00
SHOWMET.FOR;47	19/19	18-DEC-1990	00:00:00.00
SHOWMET.MAKE;1	2/2	3-MAY-1991	00:00:00.00
SHUTDEV.FOR;23	2/2	1-NOV-1990	00:00:00.00
SKEWT3.FOR;5	9/9	13-JUL-1988	00:00:00.00
SPCLIS.EXT;6	1/1	5-APR-1989	00:00:00.00
SRFILE.EXT;12	1/1	24-FEB-1989	00:00:00.00
SRTREC.FOR;1	4/4	6-APR-1989	00:00:00.00
STAT_RFMT.COM;1	1/1	8-NOV-1989	00:00:00.00
STAT_RFMT.DFL;1	1/1	16-OCT-1990	00:00:00.00
STAT_RFMT.DOC;1	5/5	7-FEB-1990	00:00:00.00
STAT_RFMT.FOR;1	1/1	9-DEC-1988	00:00:00.00
TEMPROC.COM;1	1/1	18-MAY-1990	00:00:00.00
TEMPROC.DFL;1	1/1	16-OCT-1990	00:00:00.00
TEMPROC.FOR;1	3/3	30-DEC-1988	00:00:00.00
TILPRM.EXT;17	1/1	18-MAY-1990	00:00:00.00
TMWBUF.EXT;1	1/1	9-JUL-1988	00:00:00.00
TOPEMI.COM;1	1/1	11-MAY-1989	00:00:00.00
TOPEMI.DFL;1	1/1	16-OCT-1990	00:00:00.00
TOPEMI.DOC;1	4/4	22-MAR-1990	00:00:00.00
TOPEMI.FOR;1	2/2	9-MAR-1989	00:00:00.00
TOPLIS.EXT;3	1/1	9-MAR-1989	00:00:00.00
TOPSRT.FOR;1	3/3	14-OCT-1987	00:00:00.00
TRANS3.FOR;1	2/2	14-NOV-1984	00:00:00.00
UGT.OLB;5	110/110	4-MAY-1988	00:00:00.00
VATAPE.FOR;1	2/2	2-JUN-1987	00:00:00.00
WINDOW.FOR;1	1/1	6-JUL-1988	00:00:00.00
WINDOWAR.COM;1	2/2	11-JUN-1990	00:00:00.00
WINDOWAR.DFL;1	1/1	16-OCT-1990	00:00:00.00
WINDOWAR.FOR;1	2/2	3-FEB-1989	00:00:00.00
WINDOWMB.COM;1	1/1	8-NOV-1989	00:00:00.00
WINDOWMB.DFL;1	1/1	16-OCT-1990	00:00:00.00
WINDOWMB.DOC;1	5/5	14-SEP-1989	00:00:00.00
WINDOWMB.FOR;1	2/2	13-MAR-1989	00:00:00.00
WINDOWPT.COM;1	1/1	11-JUN-1990	00:00:00.00
WINDOWPT.DFL;1	1/1	16-OCT-1990	00:00:00.00
WINDOWPT.DOC;1	5/5	5-SEP-1989	00:00:00.00
WINDOWPT.FOR;1	2/2	30-AUG-1989	00:00:00.00
XTRACTLL.DFL;1	1/1	16-OCT-1990	00:00:00.00
XTRACTLL.DOC;1	5/5	26-JAN-1990	00:00:00.00
XTRACTLL.FOR;1	2/2	14-JUL-1988	00:00:00.00
YULIAN.FOR;1	1/1	17-JUN-1988	00:00:00.00
ABGCHK.EXT;1	1/1	16-MAR-1988	00:00:00.00
ABGUTS.EXT;1	7/7	26-JUN-1987	00:00:00.00
ABTERM.FOR;1	1/1	27-SEP-1988	00:00:00.00
ABTERM5.FOR;1	1/1	15-JUL-1988	00:00:00.00
ADJFAC.EXT;1	1/1	4-NOV-1988	00:00:00.00
ADPFMF.FOR;1	1/1	26-APR-1989	00:00:00.00
ALBALF.FOR;1	2/2	27-SEP-1988	00:00:00.00
ALLFLX.FOR;1	3/3	19-JAN-1989	00:00:00.00
ALLOC.FOR;1	3/3	5-APR-1989	00:00:00.00
ALTSOL.FOR;1	2/2	5-APR-1989	00:00:00.00
APPROX.FOR;1	4/4	4-AUG-1988	00:00:00.00
ARCEST.FOR;1	2/2	25-JAN-1989	00:00:00.00
AREAC.FOR;1	1/1	3-NOV-1988	00:00:00.00

ARESEL.FOR;1	3/3	25-JAN-1989	00:00:00.00
ARSHFT.FOR;1	2/2	5-DEC-1988	00:00:00.00
AVGWAT.FOR;1	2/2	6-APR-1989	00:00:00.00
BARS.FOR;1	5/5	7-APR-1989	00:00:00.00
BASEV.EXT;1	1/1	21-JUN-1988	00:00:00.00
BASEVA.FOR;1	2/2	7-APR-1989	00:00:00.00
BCON.EXT;1	1/1	21-JUN-1988	00:00:00.00
BLKBC.FOR;1	1/1	22-AUG-1989	00:00:00.00
BLKBMT.FOR;1	3/3	28-JUL-1989	00:00:00.00
BLKBTR.FOR;1	1/1	31-JUL-1989	00:00:00.00
BLKCLN.FOR;1	2/2	8-NOV-1988	00:00:00.00
BLKIC.FOR;1	1/1	22-AUG-1989	00:00:00.00
BLKIMT.FOR;1	2/2	5-APR-1989	00:00:00.00
BLKMOB.FOR;1	2/2	31-JUL-1990	00:00:00.00
BM1BUF.EXT;1	1/1	24-AUG-1988	00:00:00.00
BM1VAR.EXT;1	1/1	28-OCT-1988	00:00:00.00
BM2BUF.EXT;1	1/1	24-AUG-1988	00:00:00.00
BM2VAR.EXT;1	1/1	24-AUG-1988	00:00:00.00
BMCOEF.FOR;1	3/3	31-OCT-1988	00:00:00.00
BMLUNS.EXT;1	1/1	28-JUL-1989	00:00:00.00
BMMFLS.EXT;1	1/1	6-APR-1989	00:00:00.00
BMSPEC.EXT;1	1/1	30-MAY-1988	00:00:00.00
BMTPRM.EXT;1	1/1	2-DEC-1988	00:00:00.00
BOYANT.FOR;1	3/3	23-AUG-1988	00:00:00.00
BQ3LAM.FOR;1	4/4	1-NOV-1988	00:00:00.00
BQ3PHI.FOR;1	4/4	1-NOV-1988	00:00:00.00
BTLUNS.EXT;1	1/1	31-JUL-1989	00:00:00.00
BTMFLS.EXT;1	1/1	5-APR-1989	00:00:00.00
BTRKBF.EXT;1	1/1	21-AUG-1988	00:00:00.00
BTRKVR.EXT;1	1/1	21-AUG-1988	00:00:00.00
BTRPRM.EXT;1	1/1	18-MAY-1988	00:00:00.00
BUODAT.EXT;1	1/1	6-APR-1989	00:00:00.00
BUOGRD.EXT;1	1/1	2-DEC-1988	00:00:00.00
BUOPRM.EXT;1	1/1	23-NOV-1988	00:00:00.00
BUOYPR.FOR;1	4/4	17-JAN-1990	00:00:00.00
CD.EXT;1	1/1	13-MAR-1986	00:00:00.00
CELHTS.EXT;1	1/1	15-SEP-1988	00:00:00.00
CHECK.FOR;1	4/4	5-APR-1989	00:00:00.00
CLDATN.FOR;1	7/7	11-OCT-1989	00:00:00.00
CLDCVR.EXT;1	1/1	26-JUL-1988	00:00:00.00
CLDFN.FOR;1	1/1	27-NOV-1988	00:00:00.00
CLDFN8.FOR;1	1/1	10-APR-1989	00:00:00.00
CLDMOD.FOR;1	7/7	5-APR-1989	00:00:00.00
CLDPAR.FOR;1	2/2	5-APR-1989	00:00:00.00
CLDRAD.FOR;1	2/2	10-APR-1989	00:00:00.00
CLOCK.FOR;1	2/2	12-JUL-1988	00:00:00.00
CMPAUX.FOR;1	2/2	5-APR-1989	00:00:00.00
CMSA.EXT;1	1/1	30-JUL-1990	00:00:00.00
CNTRL.EXT;1	1/1	3-NOV-1988	00:00:00.00
CNTRLPT.EXT;1	1/1	27-SEP-1989	00:00:00.00
CNVBUF.EXT;1	1/1	5-APR-1989	00:00:00.00
COLDGR.FOR;1	3/3	7-APR-1989	00:00:00.00
CONDIF.FOR;1	1/1	3-NOV-1988	00:00:00.00
CONVRG.FOR;1	5/5	5-APR-1989	00:00:00.00
CONWIN.FOR;1	1/1	3-NOV-1988	00:00:00.00

CORF.EXT;1	1/1	23-JUN-1988	00:00:00.00
CORFOR.FOR;1	1/1	7-APR-1989	00:00:00.00
CORRECT.FOR;1	10/10	20-JUL-1989	00:00:00.00
COUPLE.FOR;1	2/2	26-JUL-1988	00:00:00.00
CPCONF.FOR;1	7/7	5-APR-1989	00:00:00.00
CPGRAD.FOR;1	2/2	5-APR-1989	00:00:00.00
CPULOG.FOR;1	1/1	31-JUL-1988	00:00:00.00
CRTEL8.FOR;1	2/2	10-APR-1989	00:00:00.00
CRTELV.FOR;1	2/2	27-NOV-1988	00:00:00.00
CTREFF.FOR;1	8/8	1-AUG-1990	00:00:00.00
CUBMIN.FOR;1	3/3	5-APR-1989	00:00:00.00
CUFLUX.FOR;1	8/8	19-JAN-1989	00:00:00.00
CUSET.FOR;1	2/2	27-APR-1989	00:00:00.00
DATHR.FOR;1	1/1	2-NOV-1988	00:00:00.00
DAY.FOR;1	1/1	2-NOV-1988	00:00:00.00
DAYHR.EXT;1	1/1	21-JUN-1987	00:00:00.00
DELTAT.FOR;1	1/1	27-SEP-1988	00:00:00.00
DEN.FOR;1	9/9	14-SEP-1988	00:00:00.00
DESCENT.EXT;1	2/2	5-APR-1989	00:00:00.00
DIFLAM.FOR;1	1/1	2-NOV-1988	00:00:00.00
DIFPHI.FOR;1	1/1	3-NOV-1988	00:00:00.00
DIFTRB.FOR;1	3/3	19-JAN-1989	00:00:00.00
DIVMAT.EXT;1	1/1	5-APR-1989	00:00:00.00
DIVRG.FOR;1	2/2	5-APR-1989	00:00:00.00
DLNLAM.FOR;1	1/1	2-NOV-1988	00:00:00.00
DLNPHI.FOR;1	1/1	2-NOV-1988	00:00:00.00
DPCD.FOR;1	2/2	7-APR-1989	00:00:00.00
DSLMAT.FOR;1	6/6	5-APR-1989	00:00:00.00
DVGCLC.FOR;1	2/2	5-APR-1989	00:00:00.00
DVGGRD.FOR;1	3/3	2-JUN-1989	00:00:00.00
DVGPARMS.EXT;1	1/1	5-APR-1989	00:00:00.00
DVMCLC.FOR;1	2/2	5-APR-1989	00:00:00.00
EMISAR.EXT;1	1/1	24-JAN-1989	00:00:00.00
EMISP.EXT;1	1/1	6-FEB-1989	00:00:00.00
EMISPAR.EXT;1	1/1	7-APR-1989	00:00:00.00
EMISVR.EXT;1	1/1	24-AUG-1988	00:00:00.00
ENDPTS.FOR;1	5/5	16-JAN-1990	00:00:00.00
ENDRAD.EXT;1	1/1	15-JUL-1988	00:00:00.00
ENDSFC.EXT;1	1/1	1-JUL-1988	00:00:00.00
ERF.FOR;1	1/1	25-OCT-1988	00:00:00.00
ETAVS.EXT;1	1/1	23-JUN-1988	00:00:00.00
EXPCLC.FOR;1	1/1	5-APR-1989	00:00:00.00
EXTEND.FOR;1	2/2	7-APR-1989	00:00:00.00
FILE11.EXT;1	1/1	23-AUG-1988	00:00:00.00
FILE19.EXT;1	1/1	23-AUG-1988	00:00:00.00
FILEID.EXT;1	1/1	15-NOV-1988	00:00:00.00
FILES.EXT;1	1/1	3-NOV-1988	00:00:00.00
FILES.FOR;1	6/6	5-APR-1989	00:00:00.00
FILLER.FOR;1	3/3	3-FEB-1989	00:00:00.00
FILLIN.FOR;1	3/3	8-APR-1989	00:00:00.00
FINLPT.FOR;1	7/7	5-APR-1989	00:00:00.00
FLOGIC.EXT;1	1/1	1-JUL-1988	00:00:00.00
FLOMOD.FOR;1	9/9	7-APR-1989	00:00:00.00
FLXEIN.FOR;1	1/1	11-OCT-1989	00:00:00.00
FLXPRM.EXT;1	1/1	26-JUL-1988	00:00:00.00

FLXRAD.FOR;1	2/2	10-APR-1989	00:00:00.00
FRAME.FOR;1	7/7	7-APR-1989	00:00:00.00
GAMOVS.FOR;1	1/1	27-NOV-1988	00:00:00.00
GCALC.FOR;1	4/4	5-APR-1989	00:00:00.00
GENCLC.FOR;1	2/2	5-APR-1989	00:00:00.00
GENTRY.EXT;1	1/1	5-APR-1989	00:00:00.00
GM2MOD.FOR;1	1/1	26-JUL-1988	00:00:00.00
GMOVS8.FOR;1	1/1	10-APR-1989	00:00:00.00
GRADX6.FOR;1	2/2	7-APR-1989	00:00:00.00
GRBRNS.FOR;1	2/2	27-NOV-1988	00:00:00.00
GRBUOY.FOR;1	2/2	17-JAN-1990	00:00:00.00
GRID.EXT;1	1/1	15-SEP-1988	00:00:00.00
GRID1.EXT;1	1/1	23-AUG-1988	00:00:00.00
GRID6.EXT;1	1/1	23-AUG-1988	00:00:00.00
GRIDD.EXT;1	1/1	19-JAN-1989	00:00:00.00
GRIDEF.EXT;1	1/1	31-OCT-1988	00:00:00.00
GRIDGN.FOR;1	2/2	6-APR-1989	00:00:00.00
H1HOZ.FOR;1	3/3	7-APR-1989	00:00:00.00
HASH.FOR;1	2/2	12-APR-1989	00:00:00.00
HASH1.EXT;1	1/1	10-APR-1989	00:00:00.00
HASHT.EXT;1	1/1	8-JUN-1988	00:00:00.00
HEADIM.EXT;1	3/3	28-OCT-1988	00:00:00.00
HESS.FOR;1	6/6	5-APR-1989	00:00:00.00
HOURLY.EXT;1	1/1	12-JUL-1988	00:00:00.00
HRFILE.EXT;1	1/1	14-NOV-1988	00:00:00.00
IFILES.EXT;1	2/2	16-SEP-1988	00:00:00.00
IMFILE.EXT;1	1/1	29-OCT-1988	00:00:00.00
IMLUNS.EXT;1	1/1	5-APR-1989	00:00:00.00
IMMFLS.EXT;1	1/1	5-APR-1989	00:00:00.00
IMTIME.EXT;1	1/1	26-MAY-1988	00:00:00.00
IMTPRM.EXT;1	1/1	3-NOV-1988	00:00:00.00
INDATA.EXT;1	1/1	30-JUL-1988	00:00:00.00
INITPT.FOR;1	3/3	5-APR-1989	00:00:00.00
INPRES.EXT;1	3/3	31-OCT-1988	00:00:00.00
INPUTS.EXT;1	1/1	31-OCT-1988	00:00:00.00
INTERN.EXT;1	1/1	14-JUN-1988	00:00:00.00
INTPRM.EXT;1	2/2	28-JUL-1988	00:00:00.00
INTRNL.EXT;1	1/1	19-JAN-1989	00:00:00.00
INTRPD.FOR;1	3/3	5-APR-1989	00:00:00.00
INTRPM.FOR;1	4/4	10-APR-1989	00:00:00.00
INTRPS.FOR;1	3/3	5-APR-1989	00:00:00.00
ISDATE.EXT;1	1/1	14-NOV-1988	00:00:00.00
ISLAND.FOR;1	1/1	2-DEC-1988	00:00:00.00
LAKE.EXT;1	1/1	1-JUL-1988	00:00:00.00
LAKE.FOR;1	3/3	6-JUL-1988	00:00:00.00
LAVRG.FOR;1	3/3	5-APR-1989	00:00:00.00
LCLVAL.FOR;1	2/2	23-AUG-1988	00:00:00.00
LFCNLV.EXT;1	1/1	23-AUG-1988	00:00:00.00
LINMIN.FOR;1	8/8	5-APR-1989	00:00:00.00
LISTBM.FOR;1	4/4	6-APR-1989	00:00:00.00
LISTBT.FOR;1	1/1	5-APR-1989	00:00:00.00
LISTIM.FOR;1	2/2	5-APR-1989	00:00:00.00
LNDUSE.EXT;1	1/1	26-JUL-1988	00:00:00.00
LNRHVO.FOR;1	1/1	2-NOV-1988	00:00:00.00
LOTIME.FOR;1	1/1	3-JAN-1989	00:00:00.00

MATRIX.EXT;1	2/2	5-APR-1989 00:00:00.00
MBAR25.FOR;1	4/4	28-JUL-1988 00:00:00.00
MBSHFT.FOR;1	2/2	13-JAN-1989 00:00:00.00
MEAN.FOR;1	3/3	5-APR-1989 00:00:00.00
METBUF.EXT;1	1/1	10-APR-1989 00:00:00.00
METDAT.EXT;1	1/1	19-JAN-1989 00:00:00.00
METPRM.EXT;1	1/1	26-APR-1989 00:00:00.00
METVAR.EXT;1	1/1	1-MAR-1989 00:00:00.00
METVRS.EXT;1	1/1	10-APR-1989 00:00:00.00
MFOUT.EXT;1	1/1	26-OCT-1988 00:00:00.00
MINMAX.FOR;1	3/3	7-APR-1989 00:00:00.00
MINMX2.FOR;1	2/2	7-APR-1989 00:00:00.00
MOBPRM.EXT;1	1/1	11-JAN-1990 00:00:00.00
MODTIM.EXT;1	1/1	1-JUL-1988 00:00:00.00
NOXLIS.EXT;1	1/1	1-NOV-1988 00:00:00.00
OFFNDX.FOR;1	1/1	7-APR-1989 00:00:00.00
OPIMET.FOR;1	2/2	3-JAN-1989 00:00:00.00
OPWRBC.FOR;1	3/3	22-AUG-1989 00:00:00.00
OPWRIC.FOR;1	3/3	22-AUG-1989 00:00:00.00
OUTDAT.EXT;1	3/3	30-JUL-1988 00:00:00.00
OUTPT5.EXT;1	1/1	19-JAN-1989 00:00:00.00
OUTPUT.EXT;1	1/1	30-JUN-1988 00:00:00.00
P01G.COM;1	1/1	12-JUN-1990 00:00:00.00
P01G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P01G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P01G.FOR;1	2/2	16-AUG-1988 00:00:00.00
P01G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P02G.COM;1	1/1	12-JUN-1990 00:00:00.00
P02G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P02G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P02G.FOR;1	3/3	22-AUG-1989 00:00:00.00
P02G.LNK;1	1/1	9-JAN-1991 00:00:00.00
P03G.COM;1	1/1	12-JUN-1990 00:00:00.00
P03G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P03G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P03G.FOR;1	15/15	13-JUL-1989 00:00:00.00
P03G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P04G.COM;1	1/1	16-JAN-1991 00:00:00.00
P04G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P04G.DFL;1	2/2	12-JUN-1990 00:00:00.00
P04G.FOR;1	6/6	17-JAN-1990 00:00:00.00
P04G.LNK;1	4/4	8-JAN-1991 00:00:00.00
P05G.COM;1	1/1	12-JUN-1990 00:00:00.00
P05G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P05G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P05G.FOR;1	4/4	19-JAN-1989 00:00:00.00
P05G.LNK;1	3/3	8-JAN-1991 00:00:00.00
P06G.COM;1	1/1	12-JUN-1990 00:00:00.00
P06G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P06G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P06G.FOR;1	7/7	6-JUL-1988 00:00:00.00
P06G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P07G.COM;1	1/1	12-JUN-1990 00:00:00.00
P07G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P07G.DFL;1	2/2	12-JUN-1990 00:00:00.00

P07G.FOR;1	5/5	7-APR-1989	00:00:00.00
P07G.LNK;1	3/3	8-JAN-1991	00:00:00.00
P08G.COM;1	1/1	12-JUN-1990	00:00:00.00
P08G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P08G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P08G.FOR;1	5/5	9-APR-1990	00:00:00.00
P08G.LNK;1	3/3	8-JAN-1991	00:00:00.00
P09G.COM;1	1/1	12-JUN-1990	00:00:00.00
P09G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P09G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P09G.FOR;1	2/2	27-SEP-1988	00:00:00.00
P09G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P10G.COM;1	1/1	12-JUN-1990	00:00:00.00
P10G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P10G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P10G.FOR;1	7/7	30-MAY-1989	00:00:00.00
P10G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P11G.COM;1	1/1	12-JUN-1990	00:00:00.00
P11G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P11G.DFL;1	2/2	12-JUN-1990	00:00:00.00
P11G.FOR;1	9/9	11-APR-1989	00:00:00.00
P11G.LNK;1	4/4	8-JAN-1991	00:00:00.00
P12G.COM;1	2/2	12-JUN-1990	00:00:00.00
P12G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P12G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P12G.FOR;1	6/6	19-JAN-1989	00:00:00.00
P12G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P13G.COM;1	1/1	12-JUN-1990	00:00:00.00
P13G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P13G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P13G.FOR;1	2/2	26-OCT-1988	00:00:00.00
P13G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P14G.COM;1	1/1	12-JUN-1990	00:00:00.00
P14G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P14G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P14G.FOR;1	6/6	12-JUN-1989	00:00:00.00
P14G.LNK;1	3/3	8-JAN-1991	00:00:00.00
P15G.COM;1	1/1	12-JUN-1990	00:00:00.00
P15G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P15G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P15G.FOR;1	8/8	31-OCT-1988	00:00:00.00
P15G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P16G.COM;1	1/1	12-JUN-1990	00:00:00.00
P16G.CPR;1	1/1	10-MAY-1990	00:00:00.00
P16G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P16G.FOR;1	5/5	16-JAN-1990	00:00:00.00
P16G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P17G.COM;1	1/1	12-JUN-1990	00:00:00.00
P17G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P17G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P17G.FOR;1	3/3	13-APR-1989	00:00:00.00
P17G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P18.FOR;1	4/4	5-APR-1989	00:00:00.00
P19G.COM;1	1/1	12-JUN-1990	00:00:00.00
P19G.CPR;1	1/1	11-JUN-1990	00:00:00.00

P19G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P19G.FOR;1	3/3	15-AUG-1988	00:00:00.00
P19G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P20.FOR;1	4/4	5-APR-1989	00:00:00.00
P21G.COM;1	1/1	12-JUN-1990	00:00:00.00
P21G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P21G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P21G.FOR;1	4/4	8-NOV-1988	00:00:00.00
P21G.LNK;1	1/1	8-JAN-1991	00:00:00.00
P22G.COM;1	1/1	12-JUN-1990	00:00:00.00
P22G.CPR;1	1/1	12-JUN-1990	00:00:00.00
P22G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P22G.FOR;1	5/5	22-AUG-1989	00:00:00.00
P22G.LNK;1	2/2	10-JAN-1991	00:00:00.00
P23G.COM;1	1/1	12-JUN-1990	00:00:00.00
P23G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P23G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P23G.FOR;1	7/7	2-DEC-1988	00:00:00.00
P23G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P24G.COM;1	1/1	12-JUN-1990	00:00:00.00
P24G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P24G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P24G.FOR;1	7/7	30-NOV-1988	00:00:00.00
P24G.LNK;1	1/1	8-JAN-1991	00:00:00.00
P25G.COM;1	1/1	12-JUN-1990	00:00:00.00
P25G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P25G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P25G.FOR;1	4/4	23-NOV-1988	00:00:00.00
P25G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P26G.COM;1	1/1	12-JUN-1990	00:00:00.00
P26G.CPR;1	1/1	29-AUG-1990	00:00:00.00
P26G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P26G.FOR;1	4/4	31-JUL-1990	00:00:00.00
P26G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P27G.COM;1	1/1	12-JUN-1990	00:00:00.00
P27G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P27G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P27G.FOR;1	10/10	13-OCT-1989	00:00:00.00
P27G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P29G.COM;1	2/2	12-JUN-1990	00:00:00.00
P29G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P29G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P29G.DOC;1	1/1	22-JUN-1987	00:00:00.00
P29G.FOR;1	7/7	4-NOV-1988	00:00:00.00
P29G.LNK;1	2/2	8-JAN-1991	00:00:00.00
P29PRM.EXT;1	1/1	21-JUN-1987	00:00:00.00
P31G.COM;1	1/1	12-JUN-1990	00:00:00.00
P31G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P31G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P31G.FOR;1	2/2	28-NOV-1988	00:00:00.00
P31G.LNK;1	1/1	8-JAN-1991	00:00:00.00
P32G.COM;1	1/1	12-JUN-1990	00:00:00.00
P32G.CPR;1	1/1	11-JUN-1990	00:00:00.00
P32G.DFL;1	1/1	12-JUN-1990	00:00:00.00
P32G.FOR;1	5/5	19-JAN-1989	00:00:00.00

P32G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P33G.COM;1	1/1	12-JUN-1990 00:00:00.00
P33G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P33G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P33G.FOR;1	9/9	11-MAY-1989 00:00:00.00
P33G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P34G.COM;1	1/1	12-JUN-1990 00:00:00.00
P34G.CPR;1	1/1	11-JUN-1990 00:00:00.00
P34G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P34G.FOR;1	7/7	6-APR-1989 00:00:00.00
P34G.LNK;1	1/1	8-JAN-1991 00:00:00.00
P38G.COM;1	1/1	12-JUN-1990 00:00:00.00
P38G.CPR;1	1/1	19-JUL-1990 00:00:00.00
P38G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P38G.FOR;1	3/3	24-AUG-1989 00:00:00.00
P38G.LNK;1	2/2	8-JAN-1991 00:00:00.00
P39G.COM;1	2/2	12-JUN-1990 00:00:00.00
P39G.CPR;1	1/1	19-JUL-1990 00:00:00.00
P39G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P39G.FOR;1	4/4	5-APR-1989 00:00:00.00
P39G.LNK;1	3/3	8-JAN-1991 00:00:00.00
P40G.COM;1	1/1	12-JUN-1990 00:00:00.00
P40G.CPR;1	1/1	19-JUL-1990 00:00:00.00
P40G.DFL;1	1/1	12-JUN-1990 00:00:00.00
P40G.FOR;1	3/3	28-JUL-1989 00:00:00.00
P40G.LNK;1	3/3	8-JAN-1991 00:00:00.00
P41G.FOR;1	4/4	11-OCT-1989 00:00:00.00
PARAM.EXT;1	1/1	27-SEP-1988 00:00:00.00
PARAMS.FOR;1	3/3	30-JUL-1988 00:00:00.00
PARM11.EXT;1	6/6	5-APR-1989 00:00:00.00
PARM22.EXT;1	1/1	7-NOV-1988 00:00:00.00
PARM24.EXT;1	1/1	7-NOV-1988 00:00:00.00
PARM3.EXT;1	1/1	28-APR-1989 00:00:00.00
PARM4.EXT;1	2/2	19-APR-1989 00:00:00.00
PARM7.EXT;1	4/4	7-APR-1989 00:00:00.00
PBLMIX.FOR;1	3/3	5-APR-1989 00:00:00.00
PERTV.EXT;1	1/1	21-JUN-1988 00:00:00.00
PF1.EXT;1	1/1	27-JUN-1988 00:00:00.00
PF11.EXT;1	1/1	16-SEP-1988 00:00:00.00
PF19.EXT;1	1/1	15-SEP-1988 00:00:00.00
PF42.EXT;1	1/1	16-SEP-1988 00:00:00.00
PF56.EXT;1	1/1	16-SEP-1988 00:00:00.00
PF6.EXT;1	1/1	26-JUL-1988 00:00:00.00
PFILE6.EXT;1	1/1	31-OCT-1988 00:00:00.00
PFMFIN.EXT;1	2/2	25-OCT-1988 00:00:00.00
POIMET.FOR;1	2/2	6-APR-1989 00:00:00.00
POLY.FOR;1	2/2	2-NOV-1988 00:00:00.00
PONSEL.FOR;1	3/3	12-JUN-1989 00:00:00.00
POW.FOR;1	2/2	5-APR-1989 00:00:00.00
PRES.EXT;1	1/1	25-JUN-1988 00:00:00.00
PRIMES.FOR;1	2/2	7-APR-1989 00:00:00.00
PRNTGRD.FOR;1	2/2	11-MAY-1989 00:00:00.00
PROCES.EXT;1	3/3	19-JAN-1989 00:00:00.00
PROCMB.FOR;1	14/14	30-JUL-1990 00:00:00.00
PROFIL.EXT;1	1/1	23-AUG-1988 00:00:00.00

PROFIL.FOR;1	3/3	5-APR-1989	00:00:00.00
PROJEC.FOR;1	5/5	5-APR-1989	00:00:00.00
PSHIFT.FOR;1	1/1	30-JUL-1988	00:00:00.00
PSIM.FOR;1	1/1	27-NOV-1988	00:00:00.00
PTOZ.FOR;1	1/1	27-SEP-1988	00:00:00.00
PTSHFT.FOR;1	2/2	6-APR-1989	00:00:00.00
QFIELD.FOR;1	2/2	19-JAN-1989	00:00:00.00
QFLUX.EXT;1	1/1	23-JUN-1988	00:00:00.00
QFLUX.FOR;1	2/2	27-NOV-1988	00:00:00.00
QFLUX8.FOR;1	2/2	10-APR-1989	00:00:00.00
QFORM.FOR;1	1/1	27-SEP-1988	00:00:00.00
QHIST.EXT;1	1/1	23-AUG-1988	00:00:00.00
QMULUS.EXT;1	1/1	23-AUG-1988	00:00:00.00
RADII.EXT;1	1/1	5-APR-1989	00:00:00.00
RADLW8.FOR;1	1/1	10-APR-1989	00:00:00.00
RADLWV.FOR;1	1/1	27-NOV-1988	00:00:00.00
RADPFL.FOR;1	3/3	27-SEP-1988	00:00:00.00
RADRAG.FOR;1	3/3	7-APR-1989	00:00:00.00
RADTIM.FOR;1	2/2	26-JUL-1988	00:00:00.00
RADVAR.EXT;1	1/1	26-JUL-1988	00:00:00.00
RAW.EXT;1	2/2	5-APR-1989	00:00:00.00
RAWSND.EXT;1	1/1	1-JUL-1988	00:00:00.00
RBCLIP.FOR;1	1/1	26-OCT-1988	00:00:00.00
RDCONV.FOR;1	7/7	3-NOV-1988	00:00:00.00
RDDIFF.FOR;1	2/2	5-APR-1989	00:00:00.00
RDEMIS.FOR;1	2/2	6-APR-1989	00:00:00.00
RDHTS.FOR;1	5/5	5-APR-1989	00:00:00.00
RDIM.FOR;1	3/3	6-APR-1989	00:00:00.00
RDIMET.FOR;1	2/2	9-DEC-1988	00:00:00.00
RDMET.FOR;1	2/2	5-APR-1989	00:00:00.00
RDPFMF.FOR;1	2/2	26-APR-1989	00:00:00.00
RDPLOT.FOR;1	2/2	5-APR-1989	00:00:00.00
RDPRM2.FOR;1	2/2	25-JUL-1988	00:00:00.00
RDPTCS.FOR;1	2/2	9-OCT-1989	00:00:00.00
RDSAPT.FOR;1	3/3	6-APR-1989	00:00:00.00
RDSPC.FOR;1	2/2	5-APR-1989	00:00:00.00
RDSRFM.FOR;1	4/4	27-NOV-1988	00:00:00.00
RDSTAK.FOR;1	4/4	17-NOV-1988	00:00:00.00
RDTFAC.FOR;1	7/7	19-JAN-1990	00:00:00.00
RDWIND.FOR;1	2/2	5-APR-1989	00:00:00.00
RDWNDM.FOR;1	3/3	27-NOV-1988	00:00:00.00
READIN11.FOR;1	3/3	5-APR-1989	00:00:00.00
REFRSH.FOR;1	3/3	5-APR-1989	00:00:00.00
REPORT.FOR;1	3/3	5-APR-1989	00:00:00.00
RESIST.EXT;1	1/1	1-MAR-1989	00:00:00.00
RLEVEL.FOR;1	1/1	30-JUL-1988	00:00:00.00
RST.FOR;1	8/8	3-MAR-1989	00:00:00.00
RTIMOD.FOR;1	32/32	9-APR-1990	00:00:00.00
RTSHIM.EXT;1	1/1	21-APR-1988	00:00:00.00
RWND25.FOR;1	2/2	6-JAN-1989	00:00:00.00
SATEMP.FOR;1	1/1	26-APR-1989	00:00:00.00
SEGSUB.FOR;1	2/2	26-OCT-1988	00:00:00.00
SETBCS.FOR;1	9/9	7-APR-1989	00:00:00.00
SETCLK.FOR;1	1/1	26-APR-1989	00:00:00.00
SETUP.FOR;1	2/2	19-APR-1989	00:00:00.00

SETUP11.FOR;1	4/4	5-APR-1989	00:00:00.00
SETUP7.FOR;1	4/4	7-APR-1989	00:00:00.00
SFCHRS.FOR;1	4/4	16-AUG-1988	00:00:00.00
SFCLEV.FOR;1	3/3	4-AUG-1988	00:00:00.00
SFCMET.EXT;1	1/1	23-AUG-1988	00:00:00.00
SFCMET.FOR;1	2/2	23-AUG-1988	00:00:00.00
SFCMT8.EXT;1	1/1	10-APR-1989	00:00:00.00
SIGMAT.FOR;1	3/3	7-APR-1989	00:00:00.00
SLMAT.FOR;1	5/5	5-APR-1989	00:00:00.00
SLPRES.FOR;1	3/3	7-APR-1989	00:00:00.00
SMOOTH.FOR;1	2/2	7-APR-1989	00:00:00.00
SMUTHR.FOR;1	3/3	3-FEB-1989	00:00:00.00
SOLENG.FOR;1	3/3	20-JUL-1989	00:00:00.00
SOLGRP.EXT;1	1/1	31-OCT-1988	00:00:00.00
SOLPRM.EXT;1	3/3	26-JUN-1987	00:00:00.00
SOLVDH.FOR;1	8/8	7-APR-1989	00:00:00.00
SOLVER.FOR;1	9/9	7-APR-1989	00:00:00.00
SOLVUV.FOR;1	19/19	7-APR-1989	00:00:00.00
SORTAI.FOR;1	1/1	1-JUL-1988	00:00:00.00
SORTAR.FOR;1	1/1	1-JUL-1988	00:00:00.00
SPCBUF.EXT;1	1/1	23-AUG-1988	00:00:00.00
SPCEXP.FOR;1	2/2	29-OCT-1988	00:00:00.00
SPCFAC.EXT;1	1/1	9-JAN-1990	00:00:00.00
SPCLIS.EXT;1	1/1	6-APR-1989	00:00:00.00
SPCVAR.EXT;1	1/1	23-AUG-1988	00:00:00.00
SRFILE.EXT;1	1/1	14-NOV-1988	00:00:00.00
SRTREC.FOR;1	4/4	22-NOV-1988	00:00:00.00
STABLE.FOR;1	2/2	2-DEC-1988	00:00:00.00
STATNS.EXT;1	2/2	5-APR-1989	00:00:00.00
STAWAT.FOR;1	3/3	8-DEC-1988	00:00:00.00
STBVAR.EXT;1	1/1	5-DEC-1988	00:00:00.00
STINFO.FOR;1	1/1	12-APR-1989	00:00:00.00
STKDAT.EXT;1	1/1	15-NOV-1988	00:00:00.00
STKDAT2.EXT;1	1/1	24-JAN-1989	00:00:00.00
STKDATA.EXT;1	1/1	24-JAN-1989	00:00:00.00
STKHSH.FOR;1	2/2	10-APR-1989	00:00:00.00
STKMRG.FOR;1	2/2	28-MAR-1989	00:00:00.00
STUNST.EXT;1	1/1	26-JUL-1988	00:00:00.00
SURDAT.EXT;1	1/1	19-JAN-1989	00:00:00.00
SURMET.EXT;1	1/1	19-JAN-1989	00:00:00.00
SWAPEM.FOR;1	2/2	24-JAN-1989	00:00:00.00
SWAPSTK.FOR;1	1/1	12-JUN-1989	00:00:00.00
TDPGRD.FOR;1	1/1	23-AUG-1988	00:00:00.00
TIMEBM.FOR;1	2/2	22-JUN-1989	00:00:00.00
TIMEBT.FOR;1	2/2	5-APR-1989	00:00:00.00
TIMEIM.FOR;1	2/2	5-APR-1989	00:00:00.00
TMPRAL.FOR;1	1/1	19-JAN-1989	00:00:00.00
TOPSET.FOR;1	1/1	19-JAN-1989	00:00:00.00
TRCONC.EXT;1	1/1	1-NOV-1988	00:00:00.00
TRNSEM.FOR;1	2/2	6-APR-1989	00:00:00.00
TSCALE.FOR;1	1/1	6-APR-1989	00:00:00.00
TSHDIM.EXT;1	1/1	25-MAY-1988	00:00:00.00
TSHIFT.FOR;1	1/1	23-AUG-1988	00:00:00.00
TSMUTH.FOR;1	1/1	19-JAN-1989	00:00:00.00
TSTFN.FOR;1	3/3	5-APR-1989	00:00:00.00

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U1.EXT;1                    1/1        27-FEB-1989 00:00:00.00
UAGRID.EXT;1                1/1        23-AUG-1988 00:00:00.00
UNITNOS.EXT;1               2/2         5-APR-1989 00:00:00.00
UNSTBL.FOR;1                2/2         5-DEC-1988 00:00:00.00
UNSWAT.FOR;1                3/3         2-DEC-1988 00:00:00.00
UV11.FOR;1                  7/7        11-APR-1989 00:00:00.00
VERMET.FOR;1                3/3         9-APR-1989 00:00:00.00
VOCLIS.EXT;1                1/1        28-NOV-1988 00:00:00.00
VOLCAL.FOR;1                1/1         2-NOV-1988 00:00:00.00
VOLFLX.FOR;1                9/9        19-JAN-1989 00:00:00.00
VPROFL.FOR;1                4/4        23-AUG-1988 00:00:00.00
VRSPBM.FOR;1                2/2         6-APR-1989 00:00:00.00
VRSPIM.FOR;1                1/1         5-APR-1989 00:00:00.00
WATGRD.EXT;1                1/1        26-JUL-1988 00:00:00.00
WEIGHT.FOR;1                2/2        27-NOV-1988 00:00:00.00
WEIGHT11.FOR;1              2/2         5-APR-1989 00:00:00.00
WGHTFN.EXT;1                1/1         6-APR-1989 00:00:00.00
WHICH1.FOR;1                1/1        26-JUL-1988 00:00:00.00
WNDFIX.FOR;1                2/2        18-JAN-1989 00:00:00.00
WRBC.FOR;1                  3/3        22-AUG-1989 00:00:00.00
WRBMAT.FOR;1                3/3        24-AUG-1989 00:00:00.00
WRBTRK.FOR;1                2/2        31-JUL-1989 00:00:00.00
WRHDBM.FOR;1                5/5        28-JUL-1989 00:00:00.00
WRHDBT.FOR;1                3/3        27-JUL-1989 00:00:00.00
WRHDIM.FOR;1                4/4         5-APR-1989 00:00:00.00
WRIC.FOR;1                  3/3        22-AUG-1989 00:00:00.00
WRIMET.FOR;1                2/2         5-APR-1989 00:00:00.00
WRPLOT.FOR;1                3/3         5-APR-1989 00:00:00.00
WRTOBS.FOR;1                3/3        11-APR-1989 00:00:00.00
XVCCLC.FOR;1                2/2         5-APR-1989 00:00:00.00
ZO.EXT;1                    1/1        26-JUL-1988 00:00:00.00
ZEN.FOR;1                   7/7         8-SEP-1989 00:00:00.00
ZGUTS.EXT;1                 1/1        30-MAY-1987 00:00:00.00
ZONEIT.FOR;1                1/1        19-APR-1989 00:00:00.00
ZT.EXT;1                    1/1        22-JUN-1988 00:00:00.00
ZTHAT.EXT;1                 1/1        22-JUN-1988 00:00:00.00
Total of 909 files, 2309/2309 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 102322
$ EXIT
  YOJ          job terminated at  7-MAY-1991 12:47:27.56
  Accounting information:
  Buffered I/O count:          8537      Peak working set size:   579
  Direct I/O count:            5917      Peak page file size:    4716
  Page faults:                 3038      Mounted volumes:           2
  Charged CPU time:     0 00:01:07.20    Elapsed time:     0 00:14:37.53
```

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        HYDRA's boot time was    26-JAN-1991 13:17:38.82
*********************************************************************
*                        CURRENT NEWS ALERTS                        *
*===================================================================*
* 01/30/91: DTF NOT FUNCTIONING-IBM CHANNEL PROBLEM  - SEE NEWS ALERT2 *
* 01/30/91: PROBLEM ACCESSING IBM USING SYMBOLS      - SEE NEWS ALERT1 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

$ ! RSMRP1VX
$ ! RUNSTREAM IS IN [WAY.TAPES.UTIL]ROM21_LOAD.COM
$ SET VERIFY
$ STORAGE ALLOCATE/QUANITY=1/NOTE="" 9TRACK

  Volume:      099804              Owner:      HYDRA::WAY
  Format:      BACKUP              Brand:
  Allocated:   31-JAN-1991 09:12   Scratch:    14-FEB-1991 09:12
  Purchased:    7-AUG-1987 12:01   Cleaned:    19-NOV-1990 16:01
  Media type:  9TRACK              Length:       2400
  Mounts:           0              UIC:        [NEROP1VX,WAY]
  Location:    VAXTM1              Protection: S:RW,O:RW,G:R,W:
  Notes:
  Offsite:                         Onsite:
  IO Errors:        0              Flag:       ALLOCATED
  Next volume: *none*              Previous:   *none*
  Pool:                            Rec len: 0  Block factor: 0
  Initialized: 31-JAN-1991 09:12   Density:    6250
  Slot number:
  Side:                            Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT/MEDIA=9TRACK/DENSITY=6250     STAPE  099804
%DCL-I-ALLOC, _$3$MUA8: allocated
$ STORAGE LOAD/WRITE_ENABLE                    STAPE  "099804"
%SLS-I-OPRNOTIF, operator notified (31-JAN-1991 09:12:49)
$ !
$ INITIALIZE/DENSITY=6250 STAPE 099804
$ MOUNT/WRITE/DENSITY=6250  STAPE  099804
%MOUNT-I-MOUNTED, 099804 mounted on _$3$MUA8: (HSC003)
$ !
$ SHOW  DEV/FULL  STAPE

Magtape $3$MUA8: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.

    Error count                    69    Operations completed            37741
    Owner process          "BATCH_858"   Owner UIC                [NEROP1VX,WAY]
    Owner process ID          20800A98   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2     Default buffer size              2048
```

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    Volume label            "099804"    Relative volume no.                0
    Record size                   0     Transaction count                  1
    Mount status            Process     Mount count                        1
    ACP process name      "MUA2CACP"
    Density                    6250     Format                       Normal-11

  Volume status:  beginning-of-tape, subject to mount verification, odd parity.

$ !
$ COPY/LOG MET15:[ROMNET1.RAWDATA]B*.*,C*.*,E*.*,L*.*,O*.*,RAT*.*,RAW*.*, -
RWN*.*,SRFC*.*,SUR*.*,T*.* STAPE:
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]BUOY_AVGALL.DAT;8 copied to _$3$MUA8:[]BUOY_AVGALL.DAT;8 (1102 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]BUOY_MAYAUG88.DAT;1 copied to _$3$MUA8:[]BUOY_MAYAUG88.DAT;1 (138975 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]CLEANAIR.DAT;1 copied to _$3$MUA8:[]CLEANAIR.DAT;1 (220 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]CLEANBCS.DAT;1 copied to _$3$MUA8:[]CLEANBCS.DAT;1 (220 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]EQBC_RNET88.DAT;1 copied to _$3$MUA8:[]EQBC_RNET88.DAT;1 (7950 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]LAKESURELEV.DAT;3 copied to _$3$MUA8:[]LAKESURELEV.DAT;3 (23 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]LINES1.DAT;1 copied to _$3$MUA8:[]LINES1.DAT;1 (326250 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]LNDUSE1.DAT;1 copied to _$3$MUA8:[]LNDUSE1.DAT;1 (26108 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]OZONE88.DAT;3 copied to _$3$MUA8:[]OZONE88.DAT;3 (77 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]RATECB4-2.DAT;1 copied to _$3$MUA8:[]RATECB4-2.DAT;1 (112 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]RAWSTA.DAT;3 copied to _$3$MUA8:[]RAWSTA.DAT;3 (164 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]RWND_JUL88.DAT;2 copied to _$3$MUA8:[]RWND_JUL88.DAT;2 (129650 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]SRFC_JUL88.DAT;1 copied to _$3$MUA8:[]SRFC_JUL88.DAT;1 (247445 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]SURELEV_WBAN.DAT;1 copied to _$3$MUA8:[]SURELEV_WBAN.DAT;1 (521 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.RAWDATA]TOPOG1.DAT;1 copied to _$3$MUA8:[]TOPOG1.DAT;1 (7416 records)
%COPY-S-NEWFILES, 15 files created
$ DISM/NOUNLOAD STAPE
$ MOUNT/NOWRITE STAPE 099804
%MOUNT-I-MOUNTED, 099804 mounted on _$3$MUA8: (HSC003)
$ DIR STAPE:[000000...]
Directory _$3$MUA8:[]
BUOY_AVGALL.DAT;8   BUOY_MAYAUG88.DAT;1 CLEANAIR.DAT;1      CLEANBCS.DAT;1
EQBC_RNET88.DAT;1   LAKESURELEV.DAT;3   LINES1.DAT;1        LNDUSE1.DAT;1
OZONE88.DAT;3       RATECB4-2.DAT;1     RAWSTA.DAT;3        RWND_JUL88.DAT;2
SRFC_JUL88.DAT;1    SURELEV_WBAN.DAT;1  TOPOG1.DAT;1
Total of 15 files.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "DISTRIBUTION TAPE IS ", SLS$RELNUM
DISTRIBUTION TAPE IS 099804
  WAY          job terminated at 31-JAN-1991 09:39:00.09
  Accounting information:
  Buffered I/O count:          443      Peak working set size:   565
  Direct I/O count:          34997      Peak page file size:    4481
  Page faults:                1938      Mounted volumes:           2
  Charged CPU time:     0 00:02:52.68   Elapsed time:     0 00:27:00.05
```

```
       HYDRA's boot time was    26-JAN-1991 13:17:38.82
*********************************************************************
*                        CURRENT NEWS ALERTS                        *
*===================================================================*
* 01/30/91: DTF NOT FUNCTIONING-IBM CHANNEL PROBLEM  - SEE NEWS ALERT2 *
* 01/30/91: PROBLEM ACCESSING IBM USING SYMBOLS      - SEE NEWS ALERT1 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************
$ ! RSMRP1VX
$ ! RUNSTREAM IS IN [WAY.TAPES.UTIL]ROM21_LOAD.COM
$ SET VERIFY
$ STORAGE ALLOCATE/QUANITY=1/NOTE="" 9TRACK
  Volume:       100594              Owner:       HYDRA::WAY
  Format:       BACKUP              Brand:       RECERTIFIED TAPE
  Allocated:    31-JAN-1991 10:50   Scratch:     14-FEB-1991 10:50
  Purchased:    28-MAR-1988 16:52   Cleaned:      2-NOV-1990 14:53
  Media type:   9TRACK              Length:        2400
  Mounts:            1              UIC:         [NEROP1VX,WAY]
  Location:     VAXTM1              Protection:  S:RW,O:RW,G:R,W:
  Notes:
  Offsite:                          Onsite:
  IO Errors:         0              Flag:        ALLOCATED
  Next volume: *none*               Previous:    *none*
  Pool:                             Rec len: 0   Block factor: 0
  Initialized: 31-JAN-1991 10:50    Density:     6250
  Slot number:
  Side:                             Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT/MEDIA=9TRACK/DENSITY=6250     STAPE  100594
%DCL-I-ALLOC, _$3$MUA1: allocated
$ STORAGE LOAD/WRITE_ENABLE                    STAPE  "100594"
%SLS-I-OPRNOTIF, operator notified (31-JAN-1991 10:50:45)
$ !
$ INITIALIZE/DENSITY=6250 STAPE 100594
$ MOUNT/WRITE/DENSITY=6250  STAPE  100594
%MOUNT-I-MOUNTED, 100594 mounted on _$3$MUA1: (HSC003)
$ !
$ SHOW  DEV/FULL  STAPE
Magtape $3$MUA1: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    7    Operations completed            127727
    Owner process        "BATCH_965"    Owner UIC                [NEROP1VX,WAY]
    Owner process ID        20800ACD    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size               2048
    Volume label            "100594"    Relative volume no.                  0
    Record size                    0    Transaction count                    1
    Mount status             Process    Mount count                          1
    ACP process name      "MUA1CACP"
    Density                     6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
```

```
$ !
$ COPY/LOG MET15:[ROMNET1.D00000]*.* STAPE:
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF118X.DAT;1 copied to _$3$MUA1:[]PF118X.DAT;1 (11 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF119X.DAT;1 copied to _$3$MUA1:[]PF119X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF135X.DAT;1 copied to _$3$MUA1:[]PF135X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF140X.DAT;1 copied to _$3$MUA1:[]PF140X.DAT;1 (11 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF143X.DAT;1 copied to _$3$MUA1:[]PF143X.DAT;1 (1 record)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF155X.DAT;1 copied to _$3$MUA1:[]PF155X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF164X.DAT;1 copied to _$3$MUA1:[]PF164X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF165X.DAT;1 copied to _$3$MUA1:[]PF165X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF166X.DAT;1 copied to _$3$MUA1:[]PF166X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D00000]PF195X.DAT;1 copied to _$3$MUA1:[]PF195X.DAT;1 (2 records)
%COPY-S-NEWFILES, 10 files created
$ COPY/LOG MET15:[ROMNET1.D88183]*.* STAPE:
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88183]PF192X.DAT;1 copied to _$3$MUA1:[]PF192X.DAT;1 (63 records)
$ COPY/LOG MET15:[ROMNET1.D88184]P*.*,W*.* STAPE:
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]P04PRTFLX.DAT;1 copied to _$3$MUA1:[]P04PRTFLX.DAT;1 (2472 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF101X.DAT;1 copied to _$3$MUA1:[]PF101X.DAT;1 (217 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF102X.DAT;1 copied to _$3$MUA1:[]PF102X.DAT;1 (361 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF103X.DAT;1 copied to _$3$MUA1:[]PF103X.DAT;1 (217 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF104X.DAT;1 copied to _$3$MUA1:[]PF104X.DAT;1 (217 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF106X.DAT;1 copied to _$3$MUA1:[]PF106X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF107X.DAT;1 copied to _$3$MUA1:[]PF107X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF108X.DAT;1 copied to _$3$MUA1:[]PF108X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF109X.DAT;1 copied to _$3$MUA1:[]PF109X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF110X.DAT;1 copied to _$3$MUA1:[]PF110X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF111X.DAT;1 copied to _$3$MUA1:[]PF111X.DAT;1 (361 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF112X.DAT;1 copied to _$3$MUA1:[]PF112X.DAT;1 (69 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF113X.DAT;1 copied to _$3$MUA1:[]PF113X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF114X.DAT;1 copied to _$3$MUA1:[]PF114X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF115X.DAT;1 copied to _$3$MUA1:[]PF115X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF117X.DAT;1 copied to _$3$MUA1:[]PF117X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF125X.DAT;1 copied to _$3$MUA1:[]PF125X.DAT;1 (69 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF127X.DAT;1 copied to _$3$MUA1:[]PF127X.DAT;1 (139 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF128X.DAT;1 copied to _$3$MUA1:[]PF128X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF129X.DAT;1 copied to _$3$MUA1:[]PF129X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF130X.DAT;1 copied to _$3$MUA1:[]PF130X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF131X.DAT;1 copied to _$3$MUA1:[]PF131X.DAT;1 (289 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF132X.DAT;1 copied to _$3$MUA1:[]PF132X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF133X.DAT;1 copied to _$3$MUA1:[]PF133X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF137X.DAT;1 copied to _$3$MUA1:[]PF137X.DAT;1 (79 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF138X.DAT;1 copied to _$3$MUA1:[]PF138X.DAT;1 (79 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF139X.DAT;1 copied to _$3$MUA1:[]PF139X.DAT;1 (79 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF141X.DAT;1 copied to _$3$MUA1:[]PF141X.DAT;1 (2 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF142X.DAT;1 copied to _$3$MUA1:[]PF142X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF145X.DAT;1 copied to _$3$MUA1:[]PF145X.DAT;1 (1153 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF148X.DAT;1 copied to _$3$MUA1:[]PF148X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF150X.DAT;1 copied to _$3$MUA1:[]PF150X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF151X.DAT;1 copied to _$3$MUA1:[]PF151X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF152X.DAT;1 copied to _$3$MUA1:[]PF152X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF153X.DAT;1 copied to _$3$MUA1:[]PF153X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF156X.DAT;1 copied to _$3$MUA1:[]PF156X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF157X.DAT;1 copied to _$3$MUA1:[]PF157X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF160X.DAT;1 copied to _$3$MUA1:[]PF160X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF161X.DAT;1 copied to _$3$MUA1:[]PF161X.DAT;1 (73 records)
```

```
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF167X.DAT;1 copied to _$3$MUA1:[]PF167X.DAT;1 (1153 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF168X.DAT;1 copied to _$3$MUA1:[]PF168X.DAT;1 (5 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF169X.DAT;1 copied to _$3$MUA1:[]PF169X.DAT;1 (5 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF170X.DAT;1 copied to _$3$MUA1:[]PF170X.DAT;1 (5 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF171X.DAT;1 copied to _$3$MUA1:[]PF171X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF172X.DAT;1 copied to _$3$MUA1:[]PF172X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF173X.DAT;1 copied to _$3$MUA1:[]PF173X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF174X.DAT;1 copied to _$3$MUA1:[]PF174X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF175X.DAT;1 copied to _$3$MUA1:[]PF175X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF176X.DAT;1 copied to _$3$MUA1:[]PF176X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF177X.DAT;1 copied to _$3$MUA1:[]PF177X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF178X.DAT;1 copied to _$3$MUA1:[]PF178X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF179X.DAT;1 copied to _$3$MUA1:[]PF179X.DAT;1 (3 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF191X.DAT;1 copied to _$3$MUA1:[]PF191X.DAT;1 (41 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PF193X.DAT;1 copied to _$3$MUA1:[]PF193X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]PTE3X.DAT;1 copied to _$3$MUA1:[]PTE3X.DAT;1 (63289 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]WNDOB1X.DAT;1 copied to _$3$MUA1:[]WNDOB1X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]WNDOB2X.DAT;1 copied to _$3$MUA1:[]WNDOB2X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]WNDOB3X.DAT;1 copied to _$3$MUA1:[]WNDOB3X.DAT;1 (73 records)
%COPY-S-NEWFILES, 58 files created
$ DISM/NOUNLOAD STAPE
$ MOUNT/NOWRITE STAPE 100594
%MOUNT-I-MOUNTED, 100594 mounted on _$3$MUA1: (HSC003)
$ DIR STAPE:[000000...]
Directory _$3$MUA1:[]
PF118X.DAT;1        PF119X.DAT;1        PF135X.DAT;1        PF140X.DAT;1
PF143X.DAT;1        PF155X.DAT;1        PF164X.DAT;1        PF165X.DAT;1
PF166X.DAT;1        PF195X.DAT;1        PF192X.DAT;1        P04PRTFLX.DAT;1
PF101X.DAT;1        PF102X.DAT;1        PF103X.DAT;1        PF104X.DAT;1
PF106X.DAT;1        PF107X.DAT;1        PF108X.DAT;1        PF109X.DAT;1
PF110X.DAT;1        PF111X.DAT;1        PF112X.DAT;1        PF113X.DAT;1
PF114X.DAT;1        PF115X.DAT;1        PF117X.DAT;1        PF125X.DAT;1
PF127X.DAT;1        PF128X.DAT;1        PF129X.DAT;1        PF130X.DAT;1
PF131X.DAT;1        PF132X.DAT;1        PF133X.DAT;1        PF137X.DAT;1
PF138X.DAT;1        PF139X.DAT;1        PF141X.DAT;1        PF142X.DAT;1
PF145X.DAT;1        PF148X.DAT;1        PF150X.DAT;1        PF151X.DAT;1
PF152X.DAT;1        PF153X.DAT;1        PF156X.DAT;1        PF157X.DAT;1
PF160X.DAT;1        PF161X.DAT;1        PF167X.DAT;1        PF168X.DAT;1
PF169X.DAT;1        PF170X.DAT;1        PF171X.DAT;1        PF172X.DAT;1
PF173X.DAT;1        PF174X.DAT;1        PF175X.DAT;1        PF176X.DAT;1
PF177X.DAT;1        PF178X.DAT;1        PF179X.DAT;1        PF191X.DAT;1
PF193X.DAT;1        PTE3X.DAT;1         WNDOB1X.DAT;1       WNDOB2X.DAT;1
WNDOB3X.DAT;1
Total of 69 files.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "DISTRIBUTION TAPE IS ", SLS$RELNUM
DISTRIBUTION TAPE IS 100594
  WAY          job terminated at 31-JAN-1991 11:03:12.52
  Accounting information:
  Buffered I/O count:          817      Peak working set size:   586
  Direct I/O count:          13754      Peak page file size:    4481
  Page faults:                2484      Mounted volumes:           2
  Charged CPU time:     0 00:00:47.75   Elapsed time:     0 00:12:39.61
```

5. Tape Volume 103259

Description: PFMF 2

```
       HYDRA's boot time was    26-JAN-1991 13:17:38.82
*************************************************************************
*                          CURRENT NEWS ALERTS                          *
*=======================================================================*
* 01/30/91: DTF NOT FUNCTIONING-IBM CHANNEL PROBLEM  - SEE NEWS ALERT2 *
* 01/30/91: PROBLEM ACCESSING IBM USING SYMBOLS      - SEE NEWS ALERT1 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************


$ ! RSMRP1VX
$ ! RUNSTREAM IS IN [WAY.TAPES.UTIL]ROM21_LOAD.COM
$ SET VERIFY
$ STORAGE ALLOCATE/QUANITY=1/NOTE="" 9TRACK

  Volume:      103259                Owner:      HYDRA::WAY
  Format:      BACKUP                Brand:
  Allocated:   30-JAN-1991 15:50     Scratch:    13-FEB-1991 15:50
  Purchased:   23-JUL-1990 21:19     Cleaned:    23-JUL-1990 21:19
  Media type:  9TRACK                Length:       2400
  Mounts:          13                UIC:        [NEROP1VX,WAY]
  Location:    VAXTM1                Protection: S:RW,O:RW,G:R,W:
  Notes:
  Offsite:                           Onsite:
  IO Errors:        0                Flag:       ALLOCATED
  Next volume: *none*                Previous:   *none*
  Pool:                              Rec len: 0  Block factor: 0
  Initialized: 30-JAN-1991 15:50     Density:    6250
  Slot number:
  Side:                              Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT/MEDIA=9TRACK/DENSITY=6250     STAPE  103259
%DCL-I-ALLOC, _$3$MUA2: allocated
$ STORAGE LOAD/WRITE_ENABLE                    STAPE  "103259"
%SLS-I-OPRNOTIF, operator notified (30-JAN-1991 15:51:23)
$ !
$ INITIALIZE/DENSITY=6250 STAPE 103259
$ MOUNT/WRITE/DENSITY=6250  STAPE  103259
%MOUNT-I-MOUNTED, 103259 mounted on _$3$MUA2: (HSC003)
$ !
$ SHOW  DEV/FULL  STAPE

Magtape $3$MUA2: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.

    Error count                    11    Operations completed            132233
    Owner process         "BATCH_493"    Owner UIC                [NEROP1VX,WAY]
    Owner process ID         208008FD    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size               2048
```

```
  Volume label          "103259"   Relative volume no.              0
  Record size                0     Transaction count                1
  Mount status           Process   Mount count                      1
  ACP process name     "MUA8CACP"
  Density                 6250     Format                     Normal-11

 Volume status:  beginning-of-tape, subject to mount verification, odd parity.

$ !
$ COPY/LOG MET15:[ROMNET1.D88184]F*.*,M*.* STAPE:
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]FT1X.DAT;1 copied to _$3$MUA2:[]FT1X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]FT2X.DAT;1 copied to _$3$MUA2:[]FT2X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]FT3X.DAT;1 copied to _$3$MUA2:[]FT3X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF103X.DAT;1 copied to _$3$MUA2:[]MF103X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF104X.DAT;1 copied to _$3$MUA2:[]MF104X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF105X.DAT;1 copied to _$3$MUA2:[]MF105X.DAT;1 (145 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF106X.DAT;1 copied to _$3$MUA2:[]MF106X.DAT;1 (289 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF107X.DAT;1 copied to _$3$MUA2:[]MF107X.DAT;1 (289 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF108X.DAT;1 copied to _$3$MUA2:[]MF108X.DAT;1 (289 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF109X.DAT;1 copied to _$3$MUA2:[]MF109X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF110X.DAT;1 copied to _$3$MUA2:[]MF110X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF111X.DAT;1 copied to _$3$MUA2:[]MF111X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF112X.DAT;1 copied to _$3$MUA2:[]MF112X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF113X.DAT;1 copied to _$3$MUA2:[]MF113X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF129X.DAT;1 copied to _$3$MUA2:[]MF129X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF132X.DAT;1 copied to _$3$MUA2:[]MF132X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF133X.DAT;1 copied to _$3$MUA2:[]MF133X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF134X.DAT;1 copied to _$3$MUA2:[]MF134X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF135X.DAT;1 copied to _$3$MUA2:[]MF135X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF136X.DAT;1 copied to _$3$MUA2:[]MF136X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF137X.DAT;1 copied to _$3$MUA2:[]MF137X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF138X.DAT;1 copied to _$3$MUA2:[]MF138X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF139X.DAT;1 copied to _$3$MUA2:[]MF139X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF140X.DAT;1 copied to _$3$MUA2:[]MF140X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF146X.DAT;1 copied to _$3$MUA2:[]MF146X.DAT;1 (721 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF147X.DAT;1 copied to _$3$MUA2:[]MF147X.DAT;1 (865 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF151X.DAT;1 copied to _$3$MUA2:[]MF151X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF152X.DAT;1 copied to _$3$MUA2:[]MF152X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF153X.DAT;1 copied to _$3$MUA2:[]MF153X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF154X.DAT;1 copied to _$3$MUA2:[]MF154X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF155X.DAT;1 copied to _$3$MUA2:[]MF155X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF156X.DAT;1 copied to _$3$MUA2:[]MF156X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF157X.DAT;1 copied to _$3$MUA2:[]MF157X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF160X.DAT;1 copied to _$3$MUA2:[]MF160X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF161X.DAT;1 copied to _$3$MUA2:[]MF161X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF162X.DAT;1 copied to _$3$MUA2:[]MF162X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF163X.DAT;1 copied to _$3$MUA2:[]MF163X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF164X.DAT;1 copied to _$3$MUA2:[]MF164X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF165X.DAT;1 copied to _$3$MUA2:[]MF165X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF166X.DAT;1 copied to _$3$MUA2:[]MF166X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF167X.DAT;1 copied to _$3$MUA2:[]MF167X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF174X.DAT;1 copied to _$3$MUA2:[]MF174X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF175X.DAT;1 copied to _$3$MUA2:[]MF175X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA15:[ROMNET1.D88184]MF176X.DAT;1 copied to _$3$MUA2:[]MF176X.DAT;1 (73 records)
%COPY-S-NEWFILES, 44 files created
```

```
$ DISM/NOUNLOAD STAPE
$ MOUNT/NOWRITE STAPE 103259
%MOUNT-I-MOUNTED, 103259 mounted on _$3$MUA2: (HSC003)
$ DIR STAPE:[000000...]

Directory _$3$MUA2:[]

FT1X.DAT;1          FT2X.DAT;1          FT3X.DAT;1          MF103X.DAT;1
MF104X.DAT;1        MF105X.DAT;1        MF106X.DAT;1        MF107X.DAT;1
MF108X.DAT;1        MF109X.DAT;1        MF110X.DAT;1        MF111X.DAT;1
MF112X.DAT;1        MF113X.DAT;1        MF129X.DAT;1        MF132X.DAT;1
MF133X.DAT;1        MF134X.DAT;1        MF135X.DAT;1        MF136X.DAT;1
MF137X.DAT;1        MF138X.DAT;1        MF139X.DAT;1        MF140X.DAT;1
MF146X.DAT;1        MF147X.DAT;1        MF151X.DAT;1        MF152X.DAT;1
MF153X.DAT;1        MF154X.DAT;1        MF155X.DAT;1        MF156X.DAT;1
MF157X.DAT;1        MF160X.DAT;1        MF161X.DAT;1        MF162X.DAT;1
MF163X.DAT;1        MF164X.DAT;1        MF165X.DAT;1        MF166X.DAT;1
MF167X.DAT;1        MF174X.DAT;1        MF175X.DAT;1        MF176X.DAT;1
Total of 44 files.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "DISTRIBUTION TAPE IS ", SLS$RELNUM
DISTRIBUTION TAPE IS 103259
  WAY          job terminated at 30-JAN-1991 16:02:47.45
  Accounting information:
  Buffered I/O count:          633      Peak working set size:   586
  Direct I/O count:           8131      Peak page file size:    4481
  Page faults:                2045      Mounted volumes:           2
  Charged CPU time:     0 00:00:20.43   Elapsed time:     0 00:13:37.83
```

```
       HYDRA's boot time was    26-JAN-1991 13:17:38.82
*************************************************************************
*                          CURRENT NEWS ALERTS                          *
*=======================================================================*
* 01/30/91: DTF NOT FUNCTIONING-IBM CHANNEL PROBLEM  - SEE NEWS ALERT2 *
* 01/30/91: PROBLEM ACCESSING IBM USING SYMBOLS      - SEE NEWS ALERT1 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT ****************


$ ! RSMRP1VX
$ ! RUNSTREAM IS IN [WAY.TAPES.UTIL]ROM21_LOAD.COM
$ SET VERIFY
$ STORAGE ALLOCATE/QUANITY=1/NOTE="" 9TRACK

  Volume:      100417              Owner:      HYDRA::WAY
  Format:      BACKUP              Brand:      RECERTIFIED TAPE
  Allocated:   31-JAN-1991 09:53   Scratch:    14-FEB-1991 09:53
  Purchased:    8-MAR-1988 13:27   Cleaned:    30-OCT-1990 18:23
  Media type:  9TRACK              Length:       2400
  Mounts:           2              UIC:        [NEROP1VX,WAY]
  Location:    VAXTM1              Protection: S:RW,O:RW,G:R,W:
  Notes:
  Offsite:                         Onsite:
  IO Errors:        0              Flag:       ALLOCATED
  Next volume: *none*              Previous:   *none*
  Pool:                            Rec len: 0  Block factor: 0
  Initialized: 31-JAN-1991 09:53   Density:    6250
  Slot number:
  Side:                            Other side:
  Jukebox / slot:      /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT/MEDIA=9TRACK/DENSITY=6250     STAPE  100417
%DCL-I-ALLOC, _$3$MUA3: allocated
$ STORAGE LOAD/WRITE_ENABLE                    STAPE  "100417"
%SLS-I-OPRNOTIF, operator notified (31-JAN-1991 09:53:08)
$ !
$ INITIALIZE/DENSITY=6250 STAPE 100417
$ MOUNT/WRITE/DENSITY=6250  STAPE  100417
%MOUNT-I-MOUNTED, 100417 mounted on _$3$MUA3: (HSC003)
$ !
$ SHOW  DEV/FULL  STAPE

Magtape $3$MUA3: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    25    Operations completed            187911
    Owner process        "BATCH_903"    Owner UIC                [NEROP1VX,WAY]
    Owner process ID        20800AB3    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                 2    Default buffer size               2048
```

```
    Volume label            "100417"    Relative volume no.                  0
    Record size                    0    Transaction count                    1
    Mount status             Process    Mount count                          1
    ACP process name      "MUA3CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY/LOG MET52:[ROMNET1.D88184]*.* STAPE:
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]MF123X.DAT;1 copied to _$3$MUA3:[]MF123X.DAT;1 (73 records)
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]MF143X.DAT;1 copied to _$3$MUA3:[]MF143X.DAT;1 (1009 records)
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]MF144X.DAT;1 copied to _$3$MUA3:[]MF144X.DAT;1 (1009 records)
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]MF145X.DAT;1 copied to _$3$MUA3:[]MF145X.DAT;1 (1009 records)
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]PF144X.DAT;1 copied to _$3$MUA3:[]PF144X.DAT;1 (505 records)
%COPY-S-COPIED, $2$DUA52:[ROMNET1.D88184]PF190X.DAT;1 copied to _$3$MUA3:[]PF190X.DAT;1 (145 records)
%COPY-S-NEWFILES, 6 files created
$ DISM/NOUNLOAD STAPE
$ MOUNT/NOWRITE STAPE 100417
%MOUNT-I-MOUNTED, 100417 mounted on _$3$MUA3: (HSC003)
$ DIR STAPE:[000000...]
Directory _$3$MUA3:[]
MF123X.DAT;1        MF143X.DAT;1        MF144X.DAT;1        MF145X.DAT;1
PF144X.DAT;1        PF190X.DAT;1
Total of 6 files.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "DISTRIBUTION TAPE IS ", SLS$RELNUM
DISTRIBUTION TAPE IS 100417
  WAY          job terminated at 31-JAN-1991 10:00:34.63
  Accounting information:
  Buffered I/O count:          359     Peak working set size:   567
  Direct I/O count:           5493     Peak page file size:    4481
  Page faults:                2032     Mounted volumes:           2
  Charged CPU time:     0 00:00:16.47  Elapsed time:     0 00:08:12.04
```

```
        HYDRA's boot time was    22-APR-1991 02:55:37.67
*********************************************************************
*                        CURRENT NEWS ALERTS                        *
*===================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "HYDRA"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "POINTS 1"   9TRACK
  Volume:       102283                Owner:       HYDRA::YOJ
  Format:       BACKUP                Brand:       VERBATIM
  Allocated:    28-APR-1991 12:42     Scratch:     12-MAY-1991 12:42
  Purchased:     6-OCT-1989 11:45     Cleaned:      9-NOV-1990 22:55
  Media type:   9TRACK                Length:        2400
  Mounts:            1                UIC:         [NEROP1VX,YOJ]
  Location:     VAXTM1                Protection:  S:RW,O:RW,G:R,W:
  Notes:        POINTS 1
  Offsite:                            Onsite:
  IO Errors:         0                Flag:        ALLOCATED
  Next volume:  *none*                Previous:    *none*
  Pool:                               Rec len: 0   Block factor: 0
  Initialized:  28-APR-1991 12:42     Density:     6250
  Slot number:
  Side:                               Other side:
  Jukebox / slot:       /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   102283
%DCL-I-ALLOC, _$3$MUA5: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "102283"
%SLS-I-OPRNOTIF, operator notified (28-APR-1991 12:42:57)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 102283
$ MOUNT / WRITE / DENSITY = 6250 STAPE  102283
%MOUNT-I-MOUNTED, 102283 mounted on _$3$MUA5: (HSC003)
$ !
$ ASSIGN MET66:[EMISSIONS.RNSUM85P]  SDIR
$ DIRECTORY / SIZE = ALL / DATE = CREATED SDIR

Directory $2$DUA66:[EMISSIONS.RNSUM85P]
CAPOINTZ85.RAW;1        3058/3060    21-AUG-1989 14:21:35.73
PNTSA.CSO;1            57964/57966   25-AUG-1989 14:28:54.18
PNTSU.CSO;1            57964/57966   25-AUG-1989 11:47:05.78
PNTWK.CSO;1            57964/57966   25-AUG-1989 11:54:11.93
STACKS.CSO;1            3019/3021    16-JUN-1989 16:53:24.47
```

```
Total of 5 files, 179969/179979 blocks.
$ SHOW DEVICE / FULL  STAPE
Magtape $3$MUA5: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                  1264    Operations completed              56649
    Owner process         "BATCH_167"    Owner UIC                 [NEROP1VX,YOJ]
    Owner process ID         206016E7    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                 2    Default buffer size                2048
    Volume label             "102283"    Relative volume no.                   0
    Record size                     0    Transaction count                     1
    Mount status              Process    Mount count                           1
    ACP process name       "MUA5CACP"
    Density                      6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY / LOG SDIR:PNTSA.CS0  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85P]PNTSA.CS0;1 copied to _$3$MUA5:[]PNTSA.CS0;1 (370968 records)
$ COPY / LOG SDIR:PNTSU.CS0  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85P]PNTSU.CS0;1 copied to _$3$MUA5:[]PNTSU.CS0;1 (370968 records)
$ !
$ SHOW DEVICE / FULL  STAPE
Magtape $3$MUA5: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                  1264    Operations completed              87612
    Owner process         "BATCH_167"    Owner UIC                 [NEROP1VX,YOJ]
    Owner process ID         206016E7    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                 2    Default buffer size                2048
    Volume label             "102283"    Relative volume no.                   0
    Record size                     0    Transaction count                     1
    Mount status              Process    Mount count                           1
    ACP process name       "MUA5CACP"
    Density                      6250    Format                       Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
$ MOUNT / NOWRITE STAPE 102283
%MOUNT-I-MOUNTED, 102283 mounted on _$3$MUA5: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]
Directory _$3$MUA5:[]
PNTSA.CS0;1          15457/15457   25-AUG-1989 00:00:00.00
PNTSU.CS0;1          15457/15457   25-AUG-1989 00:00:00.00
Total of 2 files, 30914/30914 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 102283
$ EXIT
  YOJ          job terminated at 28-APR-1991 12:57:44.88
  Accounting information:
  Buffered I/O count:          351      Peak working set size:   567
  Direct I/O count:          32959      Peak page file size:    4482
  Page faults:                2267      Mounted volumes:           2
  Charged CPU time:     0 00:02:39.20   Elapsed time:     0 00:15:01.47
```

8. Tape Volume 102308 **Description: POINTS 2**

```
        VAXTM1's boot time was    24-APR-1991 11:03:30.74
*************************************************************************
*                          CURRENT NEWS ALERTS                          *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "VAXTM1"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "POINTS 2"   9TRACK
  Volume:       102308                Owner:       VAXTM1::YOJ
  Format:       BACKUP                Brand:       RECERTIFIED
  Allocated:    28-APR-1991 13:47     Scratch:     12-MAY-1991 13:47
  Purchased:    19-OCT-1989 21:58     Cleaned:      9-NOV-1990 22:55
  Media type:   9TRACK                Length:        2400
  Mounts:            1                UIC:         [NEROP1VX,YOJ]
  Location:     VAXTM1                Protection:  S:RW,O:RW,G:R,W:
  Notes:        POINTS 2
  Offsite:                            Onsite:
  IO Errors:         0                Flag:        ALLOCATED
  Next volume:  *none*                Previous:    *none*
  Pool:                               Rec len: 0   Block factor: 0
  Initialized:  28-APR-1991 13:47     Density:     6250
  Slot number:
  Side:                               Other side:
  Jukebox / slot:       /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   102308
%DCL-I-ALLOC, _$3$MUA11: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "102308"
%SLS-I-OPRNOTIF, operator notified (28-APR-1991 13:47:26)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 102308
$ MOUNT / WRITE / DENSITY = 6250 STAPE  102308
%MOUNT-I-MOUNTED, 102308 mounted on _$3$MUA11: (HSC003)
$ !
$ ASSIGN MET66:[EMISSIONS.RNSUM85P]  SDIR
$ DIRECTORY / SIZE = ALL / DATE = CREATED SDIR
Directory $2$DUA66:[EMISSIONS.RNSUM85P]
CAPOINTZ85.RAW;1        3058/3060     21-AUG-1989 14:21:35.73
PNTSA.CS0;1            57964/57966    25-AUG-1989 14:28:54.18
PNTSU.CS0;1            57964/57966    25-AUG-1989 11:47:05.78
PNTWK.CS0;1            57964/57966    25-AUG-1989 11:54:11.93
```

```
STACKS.CSO;1          3019/3021    16-JUN-1989 16:53:24.47
Total of 5 files, 179969/179979 blocks.
$ SHOW DEVICE / FULL  STAPE

Magtape $3$MUA11: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                  10    Operations completed             84236
    Owner process        "BATCH_198"   Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        21601F14   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2   Default buffer size               2048
    Volume label            "102308"   Relative volume no.                  0
    Record size                    0   Transaction count                    1
    Mount status             Process   Mount count                          1
    ACP process name     "MUA11CACP"
    Density                     6250   Format                        Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY / LOG SDIR:PNTWK.CSO   STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85P]PNTWK.CSO;1 copied to _$3$MUA11:[]PNTWK.CSO;1 (370968 records)
$ COPY / LOG SDIR:STACKS.CSO  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85P]STACKS.CSO;1 copied to _$3$MUA11:[]STACKS.CSO;1 (15457 records)
$ !
$ SHOW DEVICE / FULL  STAPE
Magtape $3$MUA11: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                  10    Operations completed            100515
    Owner process        "BATCH_198"   Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        21601F14   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2   Default buffer size               2048
    Volume label            "102308"   Relative volume no.                  0
    Record size                    0   Transaction count                    1
    Mount status             Process   Mount count                          1
    ACP process name     "MUA11CACP"
    Density                     6250   Format                        Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
$ MOUNT / NOWRITE STAPE 102308
%MOUNT-I-MOUNTED, 102308 mounted on _$3$MUA11: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]
Directory _$3$MUA11:[]
PNTWK.CSO;1          15457/15457   25-AUG-1989 00:00:00.00
STACKS.CSO;1           773/773     16-JUN-1989 00:00:00.00
Total of 2 files, 16230/16230 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 102308
$ EXIT
  YOJ          job terminated at 28-APR-1991 13:56:22.84
  Accounting information:
  Buffered I/O count:          345      Peak working set size:   572
  Direct I/O count:          17375      Peak page file size:    4702
  Page faults:                2326      Mounted volumes:           2
  Charged CPU time:     0 00:01:03.98   Elapsed time:     0 00:09:08.69
```

9. Tape Volume 102374 **Description: MOBILE**

```
        HYDRA's boot time was    22-APR-1991 02:55:37.67
*************************************************************************
*                          CURRENT NEWS ALERTS                          *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "HYDRA"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "MOBILE"     9TRACK

  Volume:       102374                Owner:       HYDRA::YOJ
  Format:       BACKUP                Brand:       RECERTIFIED
  Allocated:    29-APR-1991 08:30     Scratch:     13-MAY-1991 08:30
  Purchased:    30-OCT-1989 13:26     Cleaned:      9-NOV-1990 22:55
  Media type:   9TRACK                Length:        2400
  Mounts:            0                UIC:         [NEROP1VX,YOJ]
  Location:     VAXTM1                Protection:  S:RW,O:RW,G:R,W:
  Notes:        MOBILE
  Offsite:                            Onsite:
  IO Errors:         0                Flag:        ALLOCATED
  Next volume:  *none*                Previous:    *none*
  Pool:                               Rec len: 0   Block factor: 0
  Initialized:  29-APR-1991 08:30     Density:     6250
  Slot number:
  Side:                               Other side:
  Jukebox / slot:       /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   102374
%DCL-I-ALLOC, _$3$MUA10: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "102374"
%SLS-I-OPRNOTIF, operator notified (29-APR-1991 08:31:04)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 102374
$ MOUNT / WRITE / DENSITY = 6250 STAPE  102374
%MOUNT-I-MOUNTED, 102374 mounted on _$3$MUA10: (HSC003)
$ !
$ ASSIGN MET66:[EMISSIONS.RNSUM85M]  SDIR
$ DIRECTORY / SIZE = ALL / DATE = CREATED SDIR

Directory $2$DUA66:[EMISSIONS.RNSUM85M]
AAAREADME.TXT;3          2/3        9-OCT-1990 09:28:40.81
IM85CNTY.DAT;1           9/9       22-MAY-1989 16:29:26.02
IM85CNTY_NEW.CSO;3       9/9       29-MAR-1990 08:45:32.95
IM85CNTY_NEW.ORG;1       9/12      15-MAR-1990 15:28:59.86
```

```
MOBLSA.CS0;2          26075/26076   12-MAY-1989 14:59:19.08
MOBLSU.CS0;2          26075/26076   12-MAY-1989 15:00:31.52
MOBLWK.CS0;2          26075/26076   12-MAY-1989 15:01:49.89
PCTCELLMOB.DAT;1        695/696     23-MAY-1989 09:15:23.65
PCTCELLMOB_T.DAT;1      989/990      2-APR-1990 11:21:17.19
RETFAC1.DAT;1            33/33      20-OCT-1989 12:34:58.77
RETFAC_MB4.CS0;1         13/15       9-OCT-1990 10:10:37.16
SPFAC85.DAT;2             3/3       29-MAR-1990 12:55:42.68
SPFAC85_OLD.DAT;2         4/6       29-MAR-1990 13:06:57.39
TFAC_MB4.DAT;1           10/12       9-OCT-1990 09:09:11.07
Total of 14 files, 80001/80016 blocks.
$ SHOW DEV / FULL  STAPE

Magtape $3$MUA10: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.

    Error count                 1264    Operations completed              52056
    Owner process        "BATCH_673"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        20601896    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size                2048
    Volume label            "102374"    Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status             Process    Mount count                           1
    ACP process name     "MUA10CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.

$ !
$ COPY / LOG SDIR:IM85CNTY.DAT  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]IM85CNTY.DAT;1 copied to _$3$MUA10:[]IM85CNTY.DAT;1 (83 records)
$ COPY / LOG SDIR:MOBLSA.CS0    STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]MOBLSA.CS0;2 copied to _$3$MUA10:[]MOBLSA.CS0;2 (136224 records)
$ COPY / LOG SDIR:MOBLSU.CS0    STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]MOBLSU.CS0;2 copied to _$3$MUA10:[]MOBLSU.CS0;2 (136224 records)
$ COPY / LOG SDIR:MOBLWK.CS0    STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]MOBLWK.CS0;2 copied to _$3$MUA10:[]MOBLWK.CS0;2 (136224 records)
$ COPY / LOG SDIR:PCTCELLMOB.DAT  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]PCTCELLMOB.DAT;1 copied to _$3$MUA10:[]PCTCELLMOB.DAT;1 (8739 records)
$ COPY / LOG SDIR:RETFAC1.DAT  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]RETFAC1.DAT;1 copied to _$3$MUA10:[]RETFAC1.DAT;1 (223 records)
$ COPY / LOG SDIR:SPFAC85.DAT  STAPE:
%COPY-S-COPIED, $2$DUA66:[EMISSIONS.RNSUM85M]SPFAC85.DAT;2 copied to _$3$MUA10:[]SPFAC85.DAT;2 (38 records)
$ !
$ SHOW DEV / FULL  STAPE

Magtape $3$MUA10: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.

    Error count                 1266    Operations completed              72819
    Owner process        "BATCH_673"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        20601896    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size                2048
    Volume label            "102374"    Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status             Process    Mount count                           1
```

```
    ACP process name     "MUA10CACP"
    Density                    6250    Format                        Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
$ MOUNT / NOWRITE STAPE 102374
%MOUNT-I-MOUNTED, 102374 mounted on _$3$MUA10: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]
Directory _$3$MUA10:[]
IM85CNTY.DAT;1            3/3       22-MAY-1989 00:00:00.00
MOBLSA.CS0;2           6812/6812    12-MAY-1989 00:00:00.00
MOBLSU.CS0;2           6812/6812    12-MAY-1989 00:00:00.00
MOBLWK.CS0;2           6812/6812    12-MAY-1989 00:00:00.00
PCTCELLMOB.DAT;1        180/180     23-MAY-1989 00:00:00.00
RETFAC1.DAT;1             9/9       20-OCT-1989 00:00:00.00
SPFAC85.DAT;2             1/1       29-MAR-1990 00:00:00.00
Total of 7 files, 20629/20629 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 102374
$ EXIT
  YOJ          job terminated at 29-APR-1991 08:38:52.16
  Accounting information:
  Buffered I/O count:          419      Peak working set size:   565
  Direct I/O count:          22085      Peak page file size:    4482
  Page faults:                2882      Mounted volumes:           2
  Charged CPU time:     0 00:01:37.68   Elapsed time:     0 00:08:15.47
```

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```
        VAXTM1's boot time was    24-APR-1991 11:03:30.74
*****************************************************************************
*                          CURRENT NEWS ALERTS                              *
*===========================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
******************* TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************
  NODE == "VAXTM1"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADX1.COM
$ SET VERIFY
$ !
$ STORAGE ALLOCATE / QUANITY = 1 / NOTE = "AREA & BIOGENIC"   9TRACK
  Volume:       103423                Owner:       VAXTM1::YOJ
  Format:       BACKUP                Brand:
  Allocated:    27-APR-1991 11:03     Scratch:     11-MAY-1991 11:03
  Purchased:    29-AUG-1990 22:20     Cleaned:     29-AUG-1990 22:20
  Media type:   9TRACK                Length:        2400
  Mounts:            0                UIC:         [NEROP1VX,YOJ]
  Location:     VAXTM1                Protection:  S:RW,O:RW,G:R,W:
  Notes:        AREA & BIOGENIC
  Offsite:                            Onsite:
  IO Errors:         0                Flag:        ALLOCATED
  Next volume:  *none*                Previous:    *none*
  Pool:                               Rec len: 0   Block factor: 0
  Initialized:  27-APR-1991 11:03     Density:     6250
  Slot number:
  Side:                               Other side:
  Jukebox / slot:       /
  Drive:
  Volume is not in a jukebox.
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250     STAPE   103423
%DCL-I-ALLOC, _$3$MUA4: allocated
$ STORAGE LOAD / WRITE_ENABLE                          STAPE "103423"
%SLS-I-OPRNOTIF, operator notified (27-APR-1991 11:04:03)
$ !
$ INITIALIZE / DENSITY = 6250 STAPE 103423
$ MOUNT / WRITE / DENSITY = 6250 STAPE  103423
%MOUNT-I-MOUNTED, 103423 mounted on _$3$MUA4: (HSC003)
$ !
$ SHOW DEV / FULL  STAPE
Magtape $3$MUA4: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    14    Operations completed              45137
    Owner process          "BATCH_533"   Owner UIC                [NEROP1VX,YOJ]
    Owner process ID         21601CC1    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                 3    Default buffer size                2048
    Volume label             "103423"    Relative volume no.                   0
    Record size                     0    Transaction count                     1
    Mount status              Process    Mount count                           1
```

```
    ACP process name      "MUA4CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY / LOG MET58:[YOJ.EMIS]*.*;*  STAPE:
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]AREASA.CSO;2 copied to _$3$MUA4:[]AREASA.CSO;2 (79872 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]AREASU.CSO;2 copied to _$3$MUA4:[]AREASU.CSO;2 (79872 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]AREAWK.CSO;2 copied to _$3$MUA4:[]AREAWK.CSO;2 (79872 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]FLUX.DAT;1 copied to _$3$MUA4:[]FLUX.DAT;1 (52 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]GCNBIOJL.DAT;1 copied to _$3$MUA4:[]GCNBIOJL.DAT;1 (2433 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]GNCBIOJL.DAT;1 copied to _$3$MUA4:[]GNCBIOJL.DAT;1 (2468 records)
%COPY-S-COPIED, $2$DUA58:[YOJ.EMIS]GUTBIOJL.DAT;1 copied to _$3$MUA4:[]GUTBIOJL.DAT;1 (1564 records)
%COPY-S-NEWFILES, 7 files created
$ !
$ SHOW DEV / FULL  STAPE
Magtape $3$MUA4: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                   14    Operations completed              67901
    Owner process        "BATCH_533"    Owner UIC                 [NEROP1VX,YOJ]
    Owner process ID        21601CC1    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size                2048
    Volume label            "103423"    Relative volume no.                   0
    Record size                    0    Transaction count                     1
    Mount status              Process    Mount count                           1
    ACP process name      "MUA4CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD STAPE
$ MOUNT / NOWRITE STAPE 103423
%MOUNT-I-MOUNTED, 103423 mounted on _$3$MUA4: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  STAPE:[000000...]
Directory _$3$MUA4:[]
AREASA.CSO;2          7262/7262    12-MAY-1989 00:00:00.00
AREASU.CSO;2          7262/7262    12-MAY-1989 00:00:00.00
AREAWK.CSO;2          7262/7262    12-MAY-1989 00:00:00.00
FLUX.DAT;1               3/3        4-DEC-1987 00:00:00.00
GCNBIOJL.DAT;1         487/487     12-JUL-1989 00:00:00.00
GNCBIOJL.DAT;1         309/309     12-JUL-1989 00:00:00.00
GUTBIOJL.DAT;1          45/45      12-JUL-1989 00:00:00.00
Total of 7 files, 22630/22630 blocks.
$ DISMOUNT STAPE
$ DEALLOCATE STAPE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", SLS$RELNUM
  ... Distribution tape is 103423
$ EXIT
  YOJ          job terminated at 27-APR-1991 11:20:42.37
  Accounting information:
  Buffered I/O count:          377      Peak working set size:   572
  Direct I/O count:          24222      Peak page file size:    4702
  Page faults:                2113      Mounted volumes:           2
  Charged CPU time:     0 00:00:52.81   Elapsed time:     0 00:16:52.70
```

```
        HYDRA's boot time was    22-APR-1991 02:55:37.67
*************************************************************************
*                        CURRENT NEWS ALERTS                            *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "HYDRA"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADCNX1.COM
$ SET VERIFY
$ !
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250  TDRIVE   BTAPE
%DCL-I-ALLOC, _$3$MUA7: allocated
$ STORAGE LOAD / WRITE_ENABLE  TDRIVE   "B20017"
%SLS-I-OPRNOTIF, operator notified (27-APR-1991 13:40:24)
$ !
$ INITIALIZE / DENSITY = 6250  TDRIVE:  "B20017"
$ MOUNT / WRITE / DENSITY = 6250 -
        / BLOCK = 15360 / REC = 768  TDRIVE:  B20017  LTAPE
%MOUNT-I-MOUNTED, B20017 mounted on _$3$MUA7: (HSC003)
$ !
$ SHOW DEV / FULL  LTAPE

Magtape $3$MUA7: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    0    Operations completed             42660
    Owner process        "BATCH_686"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        2060160E    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                3    Default buffer size              15360
    Volume label            "B20017"    Relative volume no.                  0
    Record size                  768    Transaction count                    1
    Mount status             Process    Mount count                          1
    ACP process name      "MUA7CACP"
    Density                     6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY / LOG MET58:[YOJ.ROMNET1]IFV1873X1A.DAT      LTAPE:
%COPY-S-COPIED, $2$DUA58:[YOJ.ROMNET1]IFV1873X1A.DAT;1 copied to LTAPE:[]IFV1873X1A.DAT;1 (87420 records)
$ !
$ SHOW DEV / FULL  LTAPE
Magtape $3$MUA7: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    0    Operations completed             47063
    Owner process        "BATCH_686"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        2060160E    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size              15360
    Volume label            "B20017"    Relative volume no.                  0
    Record size                  768    Transaction count                    1
```

```
    Mount status              Process    Mount count                        1
    ACP process name       "MUA7CACP"
    Density                      6250    Format                       Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD LTAPE
$ MOUNT / NOWRITE TDRIVE:  B20017  LTAPE
%MOUNT-I-MOUNTED, B20017 mounted on _$3$MUA7: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  LTAPE:[000000...]
Directory LTAPE:[]
IFV1873X1A.DAT;1       4371/4371    27-APR-1991 00:00:00.00
Total of 1 file, 4371/4371 blocks.
$ DISMOUNT LTAPE
$ DEALLOCATE TDRIVE
$ WRITE SYS$OUTPUT "  ... Distribution tape is ", B20017
%DCL-W-UNDSYM, undefined symbol - check validity and spelling
 \B20017\
$ EXIT
  YDJ          job terminated at 27-APR-1991 13:48:48.03
  Accounting information:
  Buffered I/O count:          303      Peak working set size:   567
  Direct I/O count:           6653      Peak page file size:    4482
  Page faults:                2018      Mounted volumes:           2
  Charged CPU time:     0 00:00:32.87   Elapsed time:     0 00:08:40.41
```

```
       VAXTM1's boot time was    24-APR-1991 11:03:30.74
*************************************************************************
*                        CURRENT NEWS ALERTS                            *
*=======================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "VAXTM1"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADCNX2.COM
$ SET VERIFY
$ !
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250  TDRIVE   BTAPE
%DCL-I-ALLOC, _$3$MUA2: allocated
$ STORAGE LOAD / WRITE_ENABLE  TDRIVE   "B20033"
$ !
$ INITIALIZE / DENSITY = 6250  TDRIVE:  "B20033"
$ MOUNT / WRITE / DENSITY = 6250 -
        / BLOCK = 15360 / REC = 768  TDRIVE:  B20033  LTAPE
%MOUNT-I-MOUNTED, B20033 mounted on _$3$MUA2: (HSC002)
$ !
$ SHOW DEV / FULL  LTAPE
Magtape $3$MUA2: (HSC002), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    6    Operations completed              60879
    Owner process          "BATCH_186"  Owner UIC                [NEROP1VX,YOJ]
    Owner process ID         2160190E   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size               15360
    Volume label             "B20033"   Relative volume no.                   0
    Record size                  768    Transaction count                     1
    Mount status               Process  Mount count                           1
    ACP process name       "MUA2CACP"
    Density                     6250    Format                        Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.
$ !
$ COPY / LOG MET58:[YOJ.ROMNET1]IFV1873X2A.DAT      LTAPE:
%COPY-S-COPIED, $2$DUA58:[YOJ.ROMNET1]IFV1873X2A.DAT;1 copied to LTAPE:[]IFV1873X2A.DAT;1 (87420 records)
$ !
$ SHOW DEV / FULL  LTAPE

Magtape $3$MUA2: (HSC002), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    6    Operations completed              65282
    Owner process          "BATCH_186"  Owner UIC                [NEROP1VX,YOJ]
    Owner process ID         2160190E   Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size               15360
    Volume label             "B20033"   Relative volume no.                   0
    Record size                  768    Transaction count                     1
    Mount status               Process  Mount count                           1
```

```
    ACP process name      "MUA2CACP"
    Density                     6250    Format                          Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD LTAPE
$ MOUNT / NOWRITE / DENSITY = 6250 -
        / BLOCK = 15360 / REC = 768  TDRIVE:  B20033  LTAPE
%MOUNT-I-MOUNTED, B20033 mounted on _$3$MUA2: (HSC002)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  LTAPE:[000000...]
Directory LTAPE:[]
IFV1873X2A.DAT;1       4371/4371    27-APR-1991 00:00:00.00
Total of 1 file, 4371/4371 blocks.
$ DISMOUNT LTAPE
$ DEALLOCATE TDRIVE
$ WRITE SYS$OUTPUT "  ... Distribution tape is B20033"
  ... Distribution tape is B20033
$ EXIT
  YOJ          job terminated at 28-APR-1991 13:37:22.11
  Accounting information:
  Buffered I/O count:          291      Peak working set size:   572
  Direct I/O count:           6602      Peak page file size:    4702
  Page faults:                2045      Mounted volumes:           2
  Charged CPU time:     0 00:00:29.45   Elapsed time:     0 00:13:55.41
```

```
        VAXTM1's boot time was    29-APR-1991 07:36:58.78
*********************************************************************
*                        CURRENT NEWS ALERTS                        *
*===================================================================*
* 04/18/91: MEMORIAL DAY HOLIDAY SCHEDULE            - SEE NEWS ALERT1 *
* 04/11/91: DTF SUPERCEDE QUALIFIER INOPERATIVE      - SEE NEWS ALERT4 *
* 04/03/91: SQUARE TAPES DEFAULT ON VAX - 4/20/91    - SEE NEWS ALERT3 *
* 03/26/91: TAPE PROCEDURES UPDATE                   - SEE NEWS ALERT2 *
****************** TYPE "NEWS ALERT#" TO VIEW AN ALERT *****************

  NODE == "VAXTM1"
$ ! RSMRP1VX
$ ! runstream is in YOJ$DISK:[YOJ.LEN]STO_LOADCNX1.COM
$ SET VERIFY
$ !
$ STORAGE SELECT / MEDIA = 9TRACK / DENSITY = 6250  TDRIVE   BTAPE
%DCL-I-ALLOC, _$3$MUA5: allocated
$ STORAGE LOAD / WRITE_ENABLE  TDRIVE   "B20005"
%SLS-I-OPRNOTIF, operator notified (30-APR-1991 15:12:03)
$ !
$ INITIALIZE / DENSITY = 6250  TDRIVE:  "B20005"
$ MOUNT / WRITE / DENSITY = 6250 -
        / BLOCK = 15360 / REC = 768  TDRIVE:  B20005  LTAPE
%MOUNT-I-MOUNTED, B20005 mounted on _$3$MUA5: (HSC003)
$ !
$ SHOW DEV / FULL  LTAPE

Magtape $3$MUA5: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.

    Error count                    4    Operations completed                53
    Owner process        "BATCH_370"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        22000D53    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
    Reference count                2    Default buffer size              15360
    Volume label            "B20005"    Relative volume no.                  0
    Record size                  768    Transaction count                    1
    Mount status             Process    Mount count                          1
    ACP process name      "MUA5CACP"
    Density                     6250    Format                       Normal-11
  Volume status:  beginning-of-tape, subject to mount verification, odd parity.

$ !
$ COPY / LOG MET58:[YOJ.ROMNET1]IFV1873X3A.DAT      LTAPE:
%COPY-S-COPIED, $2$DUA58:[YOJ.ROMNET1]IFV1873X3A.DAT;1 copied to LTAPE:[]IFV1873X3A.DAT;1 (89241 records)
$ !
$ SHOW DEV / FULL  LTAPE

Magtape $3$MUA5: (HSC003), device type TA78, is online, allocated, mounted,
    file-oriented device, available to cluster, error logging is enabled.
    Error count                    4    Operations completed              4548
    Owner process        "BATCH_370"    Owner UIC                [NEROP1VX,YOJ]
    Owner process ID        22000D53    Dev Prot    S:RWED,O:RWED,G:RWED,W:RWED
```

```
    Reference count                2    Default buffer size              15360
    Volume label           "B20005"    Relative volume no.                  0
    Record size                  768   Transaction count                    1
    Mount status             Process   Mount count                          1
    ACP process name      "MUA5CACP"
    Density                     6250   Format                       Normal-11
  Volume status:  subject to mount verification, odd parity.
$ !
$ DISMOUNT / NOUNLOAD LTAPE
$ MOUNT / NOWRITE TDRIVE:  B20005  LTAPE
%MOUNT-I-MOUNTED, B20005 mounted on _$3$MUA5: (HSC003)
$ DIRECTORY / SIZE = ALL / DATE = CREATED  LTAPE:[000000...]
Directory LTAPE:[]
IFV1873X3A.DAT;1       4463/4463    30-APR-1991 00:00:00.00
Total of 1 file, 4463/4463 blocks.
$ DISMOUNT LTAPE
$ DEALLOCATE TDRIVE
$ WRITE SYS$OUTPUT "  ... Distribution tape is B20005"
  ... Distribution tape is B20005
$ EXIT
  YOJ          job terminated at 30-APR-1991 15:18:46.09
  Accounting information:
  Buffered I/O count:          303      Peak working set size:   578
  Direct I/O count:           6754      Peak page file size:    4716
  Page faults:                2065      Mounted volumes:           2
  Charged CPU time:     0 00:00:32.28   Elapsed time:     0 00:07:00.96
```

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APPENDIX B

LOGS OF IBM FILES ON DISTRIBUTION TAPES

The following are the logs of copying the IBM files to six nonlabeled (NL) distribution tapes, using:

(1) the IEBCOPY utility (page B-2)--

Tape ID: **CODE**

File no.	Filename	Record length	Block size	RECFM	Space used
1:	YOJNER1.FORT.UNIROM(ROM)	80	3120	FB	5(CYLS)
2:	YOJNER1.INCLUDES.UNIROM(60)*	80	3120	FB	2(CYLS)
3:	YOJNER1.JCL.CNTL(@CLUNIR1)	80	6160	FB	1(BLK)
4:	YOJNER1.LOADLIB.BTL(SECOND)	0	23000	U	1(CYL)
5:	YOJNER1.LIST.ROM21U(UNIROM)	137	3120	VBA	6(CYLS)
6:	YOJNER1.LOADLIB.UNIROM(ROM21U)	0	23000	U	2(CYLS)
7:	YOJNER1.JCL.CNTL(RUNUNIR)	80	6160	FB	3(TRKS)
8:	YOJNER1.ROM.MODEL.DATA(PR1873X)				
	YOJNER1.ROM.MODEL.DATA(ST1873X)	80	1600	FB	3(TRKS)
9:	YOJNER1.LOADLIB.CNUTIL(CNTRAN)	0	23000	U	1(CYL)
10:	YOJNER1.JCL.CNTL(CNTRAN)	80	6160	FB	5(TRKS)
11:	YOJNER1.LOGS.UNIROM(FV1873X)				
	YOJNER1.LOGS.UNIROM(TFV1873X)				
	YOJNER1.LOGS.UNIROM(T3FV1873)	132	132	FB	8(TRKS)

(2) the IEBGENER utility (page B-18)--

Tape ID: **CODE (concluded)**

File no.	Filename	Record length	Block size	RECFM	Space used
12:	ADRNER1.NOBKUP.IC.FV1872X	768	7680	FB	37(TRKS)
13:	ADRNER1.NOBKUP.BC.FV1872X	768	768	FB	560(TRKS)
14:	ADRNER1.NOBKUP.BTRK.FV1873X	3076	15384	VB	39(CYLS)
15:	ADRNER1.RNETIC.FV1883X	768	7680	FB	3(CYLS)
16:	ADRNER1.RESTART.FV1883X	132	132	FB	12(TRKS)

Tape ID's: **CONC1 and CONC2**

File no.	Filename	Record length	Block size	RECFM	Space used
1:	ADRNER1.NOBKUP.CONC.FV1873X	768	7680	FB	353(CYLS)

Tape ID's: **BMAT1, BMAT2, and BMAT3**

File no.	Filename	Record length	Block size	RECFM	Space used
1:	ADRNER1.NOBKUP.BMAT.FV1873X	11524	23048	VB	624(CYLS)

* Includes all 60 members of this partitioned dataset.

1. IEBCOPY Utility

```
                    J E S 2  J O B  L O G  --  S Y S T E M  E P A 2  --  N O D E  N C C I B M 1

15.38.35 JOB17031  IEF677I WARNING MESSAGE(S) FOR JOB ADRCP    ISSUED
15.38.35 JOB17031  ICH70001I ADR      LAST ACCESS AT 15:11:23 ON TUESDAY, APRIL 23, 1991
15.38.35 JOB17031  $HASP373 ADRCP    STARTED - INIT 27 - CLASS Q - SYS EPAG
15.38.36 JOB17031 *IEF233A M 456,B00233,,ADRCP,LOAD1
15.39.12 JOB17031 *25 IECTMS4 456,B00233,IS UNEXPIRED
15.40.55 JOB17031  R 25,U
15.40.55 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,001,00.ADRCP.R0000003
15.40.58 JOB17031  IEC705I TAPE ON 456,B00233,NL,NOCOMP,ADRCP,LOAD1
15.41.00 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,002,00.ADRCP.R0000006
15.41.03 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,003,00.ADRCP.R0000009
15.41.06 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,004,00.ADRCP.R0000012
15.41.08 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,005,00.ADRCP.R0000015
15.41.12 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,006,00.ADRCP.R0000018
15.41.15 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,007,00.ADRCP.R0000021
15.41.17 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,008,00.ADRCP.R0000024
15.41.19 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,009,00.ADRCP.R0000027
15.41.21 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,010,00.ADRCP.R0000030
15.41.23 JOB17031  IECTMS9 456,B00233,ADRCP   ,OUT      ,98000 ,011,00.ADRCP.R0000033
15.41.37 JOB17031  IEF234E K 456,B00233,PVT,ADRCP
15.41.37 JOB17031  NCC802I ADRCP    ENDED 04/23/91, CODE     0, ELAPSED     3:02, CPU      :02, EXCPS    4699
15.41.37 JOB17031  $HASP395 ADRCP    ENDED

------ JES2 JOB STATISTICS ------
    23 APR 91 JOB EXECUTION DATE
          121 CARDS READ
          861 SYSOUT PRINT RECORDS
            0 SYSOUT PUNCH RECORDS
           59 SYSOUT SPOOL KBYTES
         3.03 MINUTES EXECUTION TIME
        1 //ADRCP    JOB  (NER1RSMRP,B012),RANK,PRTY=4,TIME=(,3)                JOB17031
          ***ROUTE PRINT HOLD
        2 //LOAD1    EXEC  PGM=IEBCOPY
        3 //SYSPRINT DD    SYSOUT=*
        4 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
        5 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
        6 //IN      DD    DSN=YOJNER1.FORT.UNIROM,DISP=OLD
        7 //OUT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
          //   LABEL=(01,NL,EXPDT=98000)
        8 //SYSIN   DD  *
        9 //LOAD2    EXEC  PGM=IEBCOPY
       10 //SYSPRINT DD    SYSOUT=*
       11 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       12 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       13 //IN      DD    DSN=YOJNER1.INCLUDES.UNIROM,DISP=OLD
       14 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
          ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
          //   LABEL=(02,NL,EXPDT=98000),DISP=(NEW,KEEP)
       15 //SYSIN   DD  *
       16 //LOAD3    EXEC  PGM=IEBCOPY
       17 //SYSPRINT DD    SYSOUT=*
```

```
18 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
19 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
20 //IN      DD    DSN=YOJNER1.JCL.CNTL,DISP=OLD
21 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(03,NL,EXPDT=98000),DISP=(NEW,KEEP)
22 //SYSIN   DD  *
23 //LOAD4    EXEC  PGM=IEBCOPY
24 //SYSPRINT DD    SYSOUT=*
25 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
26 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
27 //IN      DD    DSN=YOJNER1.LOADLIB.BTL,DISP=OLD
28 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(04,NL,EXPDT=98000),DISP=(NEW,KEEP)
29 //SYSIN   DD  *
30 //LOAD5    EXEC  PGM=IEBCOPY
31 //SYSPRINT DD    SYSOUT=*
32 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
33 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
34 //IN      DD    DSN=YOJNER1.LIST.ROM21U,DISP=OLD
35 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(05,NL,EXPDT=98000),DISP=(NEW,KEEP)
36 //SYSIN   DD  *
37 //LOAD6    EXEC  PGM=IEBCOPY
38 //SYSPRINT DD    SYSOUT=*
39 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
40 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
41 //IN      DD    DSN=YOJNER1.LOADLIB.UNIROM,DISP=OLD
42 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(06,NL,EXPDT=98000),DISP=(NEW,KEEP)
43 //SYSIN   DD  *
44 //LOAD7    EXEC  PGM=IEBCOPY
45 //SYSPRINT DD    SYSOUT=*
46 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
47 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
48 //IN      DD    DSN=YOJNER1.JCL.CNTL,DISP=OLD
49 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(07,NL,EXPDT=98000),DISP=(NEW,KEEP)
50 //SYSIN   DD  *
51 //LOAD8    EXEC  PGM=IEBCOPY
52 //SYSPRINT DD    SYSOUT=*
53 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
54 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
55 //IN      DD    DSN=YOJNER1.ROM.MODEL.DATA,DISP=OLD
56 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
   ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
   //   LABEL=(08,NL,EXPDT=98000),DISP=(NEW,KEEP)
57 //SYSIN   DD  *
58 //LOAD9    EXEC  PGM=IEBCOPY
59 //SYSPRINT DD    SYSOUT=*
60 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
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       61 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       62 //IN      DD    DSN=YOJNER1.LOADLIB.CNUTIL,DISP=OLD
       63 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
          ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
          //   LABEL=(09,NL,EXPDT=98000),DISP=(NEW,KEEP)
       64 //SYSIN   DD  *
       65 //LOAD10   EXEC  PGM=IEBCOPY
       66 //SYSPRINT DD    SYSOUT=*
       67 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       68 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       69 //IN      DD    DSN=YOJNER1.JCL.CNTL,DISP=OLD
       70 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
          ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
          //   LABEL=(10,NL,EXPDT=98000),DISP=(NEW,KEEP)
       71 //SYSIN   DD  *
       72 //LOAD11   EXEC  PGM=IEBCOPY
       73 //SYSPRINT DD    SYSOUT=*
       74 //SYSUT3   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       75 //SYSUT4   DD    UNIT=SYSDA,SPACE=(CYL,(5,5))
       76 //IN      DD    DSN=YOJNER1.LOGS.UNIROM,DISP=OLD
          ***UT  DD    UNIT=TAPERND,VOL=SER=B00233,DISP=(NEW,KEEP,KEEP),
       77 //OUT  DD UNIT=TAPERND,VOL=(,RETAIN,,,REF=*.LOAD1.OUT),
          //   LABEL=(11,NL,EXPDT=98000),DISP=(NEW,KEEP)
       78 //SYSIN   DD  *
 STMT NO. MESSAGE

        7 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
        7 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       14 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       14 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       21 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       21 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       28 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       28 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       35 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       35 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       42 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       42 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       49 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       49 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       56 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       56 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       63 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       63 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       70 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       70 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
       77 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       77 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
ICH70001I ADR      LAST ACCESS AT 15:11:23 ON TUESDAY, APRIL 23, 1991
IEF236I ALLOC. FOR ADRCP LOAD1
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I A9F  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
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IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD1 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000112.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000001        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000002        DELETED
IEF285I   YOJNER1.FORT.UNIROM                          KEPT
IEF285I   VOL SER NOS= USR111.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000003        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000101.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB17031 ADRCP    STEP LOAD1                                CC:    0 *
NCC900I                                                                        *
NCC906I START 04/23/91 15:38:36   STOP 04/23/91 15:41:00  ELAPSED        2:24 *
NCC900I                                                                        *
NCC908I TCB      :00.10, SRB      :00.02, VEC      :00.00   TOTAL      :00.12 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA       7, MT     240, OTHER        0  TOTAL         247 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)            IN(A9F):      7       OUT(456):    240 *
NCC900I                                                                        *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  232K; ABOVE      4K, SYS  9348K; TOTAL      10584K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP    26, HSPACE      0 TOTAL          26 *
NCC916I  OUT:      0, VIO      0, SWAP    26, HSPACE      0 TOTAL          26 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                     *
NCC918I   CPU       :00.12 @  $580.00/HR                               $.02 *
NCC918I   I/O          247 @     $.22/1000                               $.05 *
NCC918I                                                            ----------- *
NCC918I                                                TOTAL COST:        $.07 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF373I STEP /LOAD1   / START 91113.1538
IEF374I STEP /LOAD1   / STOP  91113.1541 CPU    0MIN 00.10SEC SRB    0MIN 00.02SEC VIRT  1000K SYS   232K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD2
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IGD103I SMS ALLOCATED TO DDNAME IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD2 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000113.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000004        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000005        DELETED
IGD104I YOJNER1.INCLUDES.UNIROM                      RETAINED,  DDNAME=IN
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000006        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000102.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
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NCC904I JOB17031 ADRCP    STEP LOAD2                                CC:    0 *
NCC900I                                                                     *
NCC906I START 04/23/91 15:41:00   STOP 04/23/91 15:41:03  ELAPSED        :03 *
NCC900I                                                                     *
NCC908I TCB      :00.10, SRB      :00.03, VEC      :00.00   TOTAL      :00.13 *
NCC900I                                                                     *
NCC910I I/O COUNTS: DA      61, MT     115, OTHER        0  TOTAL        176 *
NCC900I                                                                     *
NCC912I I/O BY DDNAME(UNIT)            IN(880):     61       OUT(456):    115 *
NCC900I                                                                     *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  232K; ABOVE      4K, SYS  9348K; TOTAL      10584K *
NCC900I                                                                     *
NCC916I PAGING COUNTS:                                                      *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                     *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                  *
NCC918I   CPU       :00.13 @  $580.00/HR                              $.02 *
NCC918I   I/O          176 @     $.22/1000                            $.04 *
NCC918I                                                          ---------- *
NCC918I                                              TOTAL COST:       $.06 *
NCC900I                                                                     *
NCC901I ***********************************************************************
IEF373I STEP /LOAD2   / START 91113.1541
IEF374I STEP /LOAD2   / STOP  91113.1541 CPU    0MIN 00.10SEC SRB    0MIN 00.03SEC VIRT  1000K SYS   232K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD3
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I A1D  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD3 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000114.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000007        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000008        DELETED
IEF285I   YOJNER1.JCL.CNTL                             KEPT
IEF285I   VOL SER NOS= USR027.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000009        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000103.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                     *
NCC904I JOB17031 ADRCP    STEP LOAD3                                CC:    0 *
NCC900I                                                                     *
NCC906I START 04/23/91 15:41:03   STOP 04/23/91 15:41:05  ELAPSED        :02 *
NCC900I                                                                     *
NCC908I TCB      :00.06, SRB      :00.00, VEC      :00.00   TOTAL      :00.06 *
NCC900I                                                                     *
NCC910I I/O COUNTS: DA       2, MT       4, OTHER        0  TOTAL          6 *
NCC900I                                                                     *
NCC912I I/O BY DDNAME(UNIT)            IN(A1D):      2       OUT(456):      4 *
NCC900I                                                                     *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
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NCC9141 BELOW  1000K, SYS  232K; ABOVE      4K, SYS  9348K; TOTAL      10584K *
NCC9001                                                                       *
NCC9161 PAGING COUNTS:                                                        *
NCC9161  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC9161  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC9001                                                                       *
NCC9181 STEP CHARGES AT PRTY  4 (FACTOR=1)                                    *
NCC9181   CPU       :00.06 @  $580.00/HR                              $.01 *
NCC9181   I/O            6 @     $.22/1000                            $.00 *
NCC9181                                                           ---------- *
NCC9181                                              TOTAL COST:        $.01 *
NCC9001                                                                       *
NCC9011 ***********************************************************************
IEF373I STEP /LOAD3   / START 91113.1541
IEF374I STEP /LOAD3   / STOP  91113.1541 CPU    0MIN 00.06SEC SRB    0MIN 00.00SEC VIRT  1000K SYS   232K EXT      4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD4
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IGD103I SMS ALLOCATED TO DDNAME IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD4 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000115.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000010        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000011        DELETED
IGD104I YOJNER1.LOADLIB.BTL                          RETAINED,  DDNAME=IN
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000012        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000104.?                SYSIN
NCC9021 ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC9001                                                                       *
NCC9041 JOB17031 ADRCP    STEP LOAD4                                CC:    0 *
NCC9001                                                                       *
NCC9061 START 04/23/91 15:41:05   STOP 04/23/91 15:41:07  ELAPSED         :02 *
NCC9001                                                                       *
NCC9081 TCB      :00.06, SRB      :00.00, VEC      :00.00   TOTAL      :00.06 *
NCC9001                                                                       *
NCC9101 I/O COUNTS: DA       6, MT       4, OTHER        0  TOTAL          10 *
NCC9001                                                                       *
NCC9121 I/O BY DDNAME(UNIT)            IN(8BA):      6       OUT(456):      4 *
NCC9001                                                                       *
NCC9141 REGION USAGE:                              REGION REQUESTED       1000K *
NCC9141 BELOW  1000K, SYS  236K; ABOVE      4K, SYS  9348K; TOTAL      10588K *
NCC9001                                                                       *
NCC9161 PAGING COUNTS:                                                        *
NCC9161  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC9161  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC9001                                                                       *
NCC9181 STEP CHARGES AT PRTY  4 (FACTOR=1)                                    *
NCC9181   CPU       :00.06 @  $580.00/HR                              $.01 *
NCC9181   I/O           10 @     $.22/1000                            $.00 *
NCC9181                                                           ---------- *
NCC9181                                              TOTAL COST:        $.01 *
NCC9001                                                                       *
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NCC901I ************************************************************************
IEF373I STEP /LOAD4   / START 91113.1541
IEF374I STEP /LOAD4   / STOP  91113.1541 CPU    0MIN 00.06SEC SRB    0MIN 00.00SEC VIRT  1000K SYS   236K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD5
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IGD103I SMS ALLOCATED TO DDNAME IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD5 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000116.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000013        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000014        DELETED
IGD104I YOJNER1.LIST.ROM21U                          RETAINED,  DDNAME=IN
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000015        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000105.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB17031 ADRCP    STEP LOAD5                                CC:    0 *
NCC900I                                                                        *
NCC906I START 04/23/91 15:41:08   STOP 04/23/91 15:41:12  ELAPSED         :04 *
NCC900I                                                                        *
NCC908I TCB      :00.11, SRB      :00.04, VEC      :00.00   TOTAL      :00.15 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA      12, MT     440, OTHER        0  TOTAL         452 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)            IN(AGE):     12       OUT(456):    440 *
NCC900I                                                                        *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  240K; ABOVE      4K, SYS  9348K; TOTAL      10592K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                     *
NCC918I   CPU       :00.15 @  $580.00/HR                               $.02 *
NCC918I   I/O          452 @     $.22/1000                               $.10 *
NCC918I                                                            ---------- *
NCC918I                                                TOTAL COST:        $.12 *
NCC900I                                                                        *
NCC901I ************************************************************************
IEF373I STEP /LOAD5   / START 91113.1541
IEF374I STEP /LOAD5   / STOP  91113.1541 CPU    0MIN 00.11SEC SRB    0MIN 00.04SEC VIRT  1000K SYS   240K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD6
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I 977  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD6 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000117.?                SYSOUT
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IEF285I   SYS91113.T153835.RA000.ADRCP.R0000016        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000017        DELETED
IEF285I   YOJNER1.LOADLIB.UNIROM                       KEPT
IEF285I   VOL SER NOS= USR093.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000018        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000106.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB17031 ADRCP    STEP LOAD6                                CC:    0 *
NCC900I                                                                        *
NCC906I START 04/23/91 15:41:12   STOP 04/23/91 15:41:15  ELAPSED         :03 *
NCC900I                                                                        *
NCC908I TCB      :00.08, SRB      :00.01, VEC      :00.00   TOTAL      :00.09 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA      24, MT      29, OTHER        0  TOTAL          53 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)            IN(977):     24       OUT(456):     29 *
NCC900I                                                                        *
NCC914I REGION USAGE:                          REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  240K; ABOVE      4K, SYS  9348K; TOTAL      10592K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                     *
NCC918I   CPU       :00.09 @  $580.00/HR                              $.01 *
NCC918I   I/O           53 @     $.22/1000                            $.01 *
NCC918I                                                          ---------- *
NCC918I                                                TOTAL COST:      $.02 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF373I STEP /LOAD6   / START 91113.1541
IEF374I STEP /LOAD6   / STOP  91113.1541 CPU    0MIN 00.08SEC SRB    0MIN 00.01SEC VIRT  1000K SYS   240K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD7
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I A1D  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD7 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000118.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000019        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000020        DELETED
IEF285I   YOJNER1.JCL.CNTL                             KEPT
IEF285I   VOL SER NOS= USR027.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000021        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000107.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB17031 ADRCP    STEP LOAD7                                CC:    0 *
NCC900I                                                                        *
```

```
NCC906I START 04/23/91 15:41:15   STOP 04/23/91 15:41:17  ELAPSED        :02 *
NCC900I                                                                      *
NCC908I TCB      :00.08, SRB      :00.00, VEC      :00.00   TOTAL      :00.08 *
NCC900I                                                                      *
NCC910I I/O COUNTS: DA       2, MT       4, OTHER        0  TOTAL          6 *
NCC900I                                                                      *
NCC912I I/O BY DDNAME(UNIT)            IN(A1D):      2       OUT(456):      4 *
NCC900I                                                                      *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  240K; ABOVE      4K, SYS  9348K; TOTAL      10592K *
NCC900I                                                                      *
NCC916I PAGING COUNTS:                                                       *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                      *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                   *
NCC918I   CPU       :00.08 @  $580.00/HR                              $.01 *
NCC918I   I/O            6 @     $.22/1000                            $.00 *
NCC918I                                                          ---------- *
NCC918I                                              TOTAL COST:       $.01 *
NCC900I                                                                      *
NCC901I ************************************************************************
IEF373I STEP /LOAD7   / START 91113.1541
IEF374I STEP /LOAD7   / STOP  91113.1541 CPU    0MIN 00.08SEC SRB    0MIN 00.00SEC VIRT  1000K SYS   240K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD8
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IGD103I SMS ALLOCATED TO DDNAME IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD8 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000119.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000022        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000023        DELETED
IGD104I YOJNER1.ROM.MODEL.DATA                       RETAINED,  DDNAME=IN
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000024        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000108.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                      *
NCC904I JOB17031 ADRCP    STEP LOAD8                                CC:    0 *
NCC900I                                                                      *
NCC906I START 04/23/91 15:41:17   STOP 04/23/91 15:41:19  ELAPSED        :02 *
NCC900I                                                                      *
NCC908I TCB      :00.07, SRB      :00.00, VEC      :00.00   TOTAL      :00.07 *
NCC900I                                                                      *
NCC910I I/O COUNTS: DA       4, MT       5, OTHER        0  TOTAL          9 *
NCC900I                                                                      *
NCC912I I/O BY DDNAME(UNIT)            IN(B19):      4       OUT(456):      5 *
NCC900I                                                                      *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  240K; ABOVE      4K, SYS  9348K; TOTAL      10592K *
NCC900I                                                                      *
NCC916I PAGING COUNTS:                                                       *
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NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                      *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                   *
NCC918I   CPU       :00.07 @  $580.00/HR                              $.01 *
NCC918I   I/O            9 @     $.22/1000                            $.00 *
NCC918I                                                           ---------- *
NCC918I                                              TOTAL COST:        $.01 *
NCC900I                                                                      *
NCC901I ************************************************************************
IEF373I STEP /LOAD8   / START 91113.1541
IEF374I STEP /LOAD8   / STOP  91113.1541 CPU    0MIN 00.07SEC SRB    0MIN 00.00SEC VIRT  1000K SYS   240K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD9
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I A70  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD9 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000120.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000025        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000026        DELETED
IEF285I   YOJNER1.LOADLIB.CNUTIL                       KEPT
IEF285I   VOL SER NOS= USR012.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000027        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000109.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                      *
NCC904I JOB17031 ADRCP    STEP LOAD9                                CC:    0 *
NCC900I                                                                      *
NCC906I START 04/23/91 15:41:19   STOP 04/23/91 15:41:21  ELAPSED         :02 *
NCC900I                                                                      *
NCC908I TCB      :00.07, SRB      :00.01, VEC      :00.00   TOTAL      :00.08 *
NCC900I                                                                      *
NCC910I I/O COUNTS: DA       5, MT       5, OTHER        0  TOTAL          10 *
NCC900I                                                                      *
NCC912I I/O BY DDNAME(UNIT)            IN(A70):      5       OUT(456):      5 *
NCC900I                                                                      *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  244K; ABOVE      4K, SYS  9348K; TOTAL      10596K *
NCC900I                                                                      *
NCC916I PAGING COUNTS:                                                       *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                      *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                   *
NCC918I   CPU       :00.08 @  $580.00/HR                              $.01 *
NCC918I   I/O           10 @     $.22/1000                            $.00 *
NCC918I                                                           ---------- *
NCC918I                                              TOTAL COST:        $.01 *
NCC900I                                                                      *
NCC901I ************************************************************************
IEF373I STEP /LOAD9   / START 91113.1541
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IEF374I STEP /LOAD9   / STOP  91113.1541 CPU    0MIN 00.07SEC SRB    0MIN 00.01SEC VIRT  1000K SYS   244K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD10
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I A1D  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD10 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000121.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000028        DELETED
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000029        DELETED
IEF285I   YOJNER1.JCL.CNTL                             KEPT
IEF285I   VOL SER NOS= USR027.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000030        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000110.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB17031 ADRCP    STEP LOAD10                                CC:    0 *
NCC900I                                                                        *
NCC906I START 04/23/91 15:41:21   STOP 04/23/91 15:41:23  ELAPSED         :02 *
NCC900I                                                                        *
NCC908I TCB      :00.07, SRB      :00.00, VEC      :00.00   TOTAL      :00.07 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA       2, MT       4, OTHER        0  TOTAL           6 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)            IN(A1D):      2       OUT(456):      4 *
NCC900I                                                                        *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  244K; ABOVE      4K, SYS  9348K; TOTAL      10596K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                     *
NCC918I   CPU       :00.07 @  $580.00/HR                              $.01 *
NCC918I   I/O            6 @     $.22/1000                            $.00 *
NCC918I                                                            ---------- *
NCC918I                                                TOTAL COST:       $.01 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF373I STEP /LOAD10  / START 91113.1541
IEF374I STEP /LOAD10  / STOP  91113.1541 CPU    0MIN 00.07SEC SRB    0MIN 00.00SEC VIRT  1000K SYS   244K EXT       4K SYS    9348K
IEF236I ALLOC. FOR ADRCP LOAD11
IEF237I JES2 ALLOCATED TO SYSPRINT
IGD100I VIO ALLOCATED TO DDNAME SYSUT3   DATACLAS (        )
IGD100I VIO ALLOCATED TO DDNAME SYSUT4   DATACLAS (        )
IEF237I 88D  ALLOCATED TO IN
IGD100I 456 ALLOCATED TO DDNAME OUT      DATACLAS (        )
IEF237I JES2 ALLOCATED TO SYSIN
IEF142I ADRCP LOAD11 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRCP.JOB17031.D0000122.?                SYSOUT
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000031        DELETED
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IEF285I   SYS91113.T153835.RA000.ADRCP.R0000032        DELETED
IEF285I   YOJNER1.LOGS.UNIROM                          KEPT
IEF285I   VOL SER NOS= USR085.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000033        PASSED
IEF285I   VOL SER NOS= B00233.
IEF285I   ADR.ADRCP.JOB17031.D0000111.?                SYSIN
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                       *
NCC904I JOB17031 ADRCP    STEP LOAD11                                CC:    0 *
NCC900I                                                                       *
NCC906I START 04/23/91 15:41:23   STOP 04/23/91 15:41:37  ELAPSED         :14 *
NCC900I                                                                       *
NCC908I TCB       :00.49, SRB       :00.26, VEC       :00.00   TOTAL      :00.75 *
NCC900I                                                                       *
NCC910I I/O COUNTS: DA      82, MT    3642, OTHER        0  TOTAL        3724 *
NCC900I                                                                       *
NCC912I I/O BY DDNAME(UNIT)            IN(88D):     82       OUT(456):   3642 *
NCC900I                                                                       *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW  1000K, SYS  244K; ABOVE      4K, SYS  9348K; TOTAL      10596K *
NCC900I                                                                       *
NCC916I PAGING COUNTS:                                                        *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC900I                                                                       *
NCC918I STEP CHARGES AT PRTY  4 (FACTOR=1)                                    *
NCC918I   CPU        :00.75 @  $580.00/HR                              $.12 *
NCC918I   I/O          3724 @     $.22/1000                            $.82 *
NCC918I                                                            ----------- *
NCC918I                                                TOTAL COST:       $.94 *
NCC900I                                                                       *
NCC901I *******************************************************************
IEF373I STEP /LOAD11  / START 91113.1541
IEF374I STEP /LOAD11  / STOP  91113.1541 CPU    0MIN 00.49SEC SRB    0MIN 00.26SEC VIRT  1000K SYS   244K EXT       4K SYS    9348K
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000003        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000006        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000009        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000012        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000015        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000018        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000021        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000024        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000027        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000030        DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91113.T153835.RA000.ADRCP.R0000033        DELETED
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IEF285I   VOL SER NOS= B00233.
NCC903I ****************** U.S.EPA  SYSTEM EPAG -  JOB SUMMARY *****************
NCC900I                                                                        *
NCC905I JOB17031 ADRCP      11 STEPS                                CC:    0 *
NCC900I                                                                        *
NCC907I                SUBMIT TUESDAY   04/23/91 15:38:37  ON QUEUE        :00 *
NCC900I                                                                        *
NCC907I START 04/23/91 15:38:36   STOP 04/23/91 15:41:38  ELAPSED        3:02 *
NCC900I                                                                        *
NCC909I TCB      :01.29, SRB      :00.37, VEC      :00.00   TOTAL      :01.66 *
NCC900I                                                                        *
NCC911I I/O COUNTS: DA     207, MT    4492, OTHER        0  TOTAL        4699 *
NCC900I                                                                        *
NCC919I  JOB CHARGES AT PRTY  4 (FACTOR=1)                                     *
NCC919I   CPU       :01.66 @  $580.00/HR                                $.27 *
NCC919I   I/O         4699 @     $.22/1000                             $1.03 *
NCC918I                                                             ---------- *
NCC919I                                                TOTAL COST:      $1.30 *
NCC900I                                                                        *
NCC901I ***************************************************************************
IEF375I  JOB /ADRCP   / START 91113.1538
IEF376I  JOB /ADRCP   / STOP  91113.1541 CPU    0MIN 01.29SEC SRB    0MIN 00.37SEC
                                         IEBCOPY MESSAGES AND CONTROL STATEMENTS          PAGE     1
IEB1035I ADRCP     LOAD1    15:38:36 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=ROM
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR111 DSN=YOJNER1.FORT.UNIROM
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000003
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I ROM      HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                         IEBCOPY MESSAGES AND CONTROL STATEMENTS          PAGE     1
IEB1035I ADRCP     LOAD2    15:41:00 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USS053 DSN=YOJNER1.INCLUDES.UNIROM
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000006
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I ADVSFL   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BCFILE   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BGBCFL   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BGBTFL   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BGGUTS1  HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BGICCN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BMCOEF   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BMFILE   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I BTFILE   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I CHEMIN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I CHEMSW   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I CNFILE   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I CONFAC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I CSPHRX   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I DIMENS   HAS BEEN SUCCESSFULLY UNLOADED
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IEB154I ERRGT    HAS BEEN SUCCESSFULLY UNLOADED
IEB154I FLNAMS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I GTCOEF   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HDFMTS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HDSTAV   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADBC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADBM   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADBT   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADCN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADIC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HEADIN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I HSTEPS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I ICFILE   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I LGBMFL   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I LILGSP   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I LUNITS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I LVNAME   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I NDXSPC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I NROOTS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I REGION   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RKLEVS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I ROWSCT   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTCONS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTSHBC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTSHBM   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTSHBT   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTSHCN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RTSHIC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I RUNTMS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I SOLPRM   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I SPNAME   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I STOPFL   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I SUBID    HAS BEEN SUCCESSFULLY UNLOADED
                                        IEBCOPY MESSAGES AND CONTROL STATEMENTS          PAGE     2
IEB154I TEXTPT   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TILDE    HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDBC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDBM   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDBT   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDCN   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDIC   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDMD   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSHDSV   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TSTEPS   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I UNITIO   HAS BEEN SUCCESSFULLY UNLOADED
IEB154I ZADVSL   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                        IEBCOPY MESSAGES AND CONTROL STATEMENTS          PAGE     1
IEB1035I ADRCP     LOAD3    15:41:03 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=@CLUNIR1
```

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IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR027 DSN=YOJNER1.JCL.CNTL
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000009
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I @CLUNIR1 HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD4    15:41:05 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=SECOND
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USS058 DSN=YOJNER1.LOADLIB.BTL
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000012
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I SECOND   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD5    15:41:07 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=UNIROM
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USS028 DSN=YOJNER1.LIST.ROM21U
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000015
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I UNIROM   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD6    15:41:12 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=ROM21U
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR093 DSN=YOJNER1.LOADLIB.UNIROM
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000018
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I ROM21U   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD7    15:41:15 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=RUNUNIR
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR027 DSN=YOJNER1.JCL.CNTL
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000021
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I RUNUNIR  HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD8    15:41:17 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=(PR1873X,ST1873X)
```

```
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USS042 DSN=YOJNER1.ROM.MODEL.DATA
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000024
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I PR1873X  HAS BEEN SUCCESSFULLY UNLOADED
IEB154I ST1873X  HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD9    15:41:19 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=CNTRAN
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR012 DSN=YOJNER1.LOADLIB.CNUTIL
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000027
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I CNTRAN   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD10   15:41:21 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=CNTRAN
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR027 DSN=YOJNER1.JCL.CNTL
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000030
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I CNTRAN   HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
                                       IEBCOPY MESSAGES AND CONTROL STATEMENTS            PAGE     1
IEB1035I ADRCP     LOAD11   15:41:23 TUE 23 APR 1991 PARM='' UY54706
IEB1057I VL GETMAIN REQUESTED 17920 TO 1024K BYTES.  OBTAINED 900K.  WILL RELEASE 8192.
        COPY OUTDD=OUT,INDD=IN
        SELECT MEMBER=(FV1873X,TFV1873X,T3FV1873)
IEB1013I COPYING FROM PDS   INDD=IN       VOL=USR085 DSN=YOJNER1.LOGS.UNIROM
IEB1014I           TO PDSU OUTDD=OUT      VOL=B00233 DSN=SYS91113.T153835.RA000.ADRCP.R0000033
IEB167I FOLLOWING MEMBER(S) UNLOADED FROM INPUT DATASET REFERENCED BY IN
IEB154I FV1873X  HAS BEEN SUCCESSFULLY UNLOADED
IEB154I TFV1873X HAS BEEN SUCCESSFULLY UNLOADED
IEB154I T3FV1873 HAS BEEN SUCCESSFULLY UNLOADED
IEB1056I RELEASED 892K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
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2. IEBGENER Utility

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                    J E S 2   J O B   L O G  --  S Y S T E M  E P A 2  --  N O D E  N C C I B M 1

09.40.02 JOB06149  IEF677I WARNING MESSAGE(S) FOR JOB ADRFL3   ISSUED
09.40.02 JOB06149  ICH70001I ADR      LAST ACCESS AT 09:37:20 ON WEDNESDAY, APRIL 24, 1991
09.40.02 JOB06149  $HASP373 ADRFL3   STARTED - INIT 26 - CLASS B - SYS EPAG
09.40.03 JOB06149 *IEF233A M 459,B00233,,ADRFL3,TAPEC1
09.41.14 JOB06149 *10 IECTMS4 459,B00233,IS UNEXPIRED
09.41.20 JOB06149  R 10,U
09.41.20 JOB06149  IECTMS9 459,B00233,ADRFL3  ,SYSUT2  ,98000 ,012,0.ADRFL3.R0000001
09.41.23 JOB06149  IECTMS9 459,B00233,ADRFL3  ,SYSUT2  ,98000 ,013,0.ADRFL3.R0000002
09.42.03 JOB06149  IECTMS9 459,B00233,ADRFL3  ,SYSUT2  ,98000 ,014,0.ADRFL3.R0000003
09.42.22 JOB06149  IECTMS9 459,B00233,ADRFL3  ,SYSUT2  ,98000 ,015,0.ADRFL3.R0000004
09.42.25 JOB06149  IECTMS9 459,B00233,ADRFL3  ,SYSUT2  ,98000 ,016,0.ADRFL3.R0000005
09.42.28 JOB06149 *IEF233A M 458,B00234,,ADRFL3,TAPEC6
09.43.08 JOB06149  IEC512I LBL ERR 458,ROMCN1,NL,B00234,NL,ADRFL3,TAPEC6
09.43.08 JOB06149 *IEC534D A 458,ROMCN1,NL,ADRFL3,TAPEC6
09.43.08 JOB06149 *12 IEC534D REPLY 'U'-USE OR 'M'-UNLOAD
09.43.50 JOB06149  R 12,U
09.43.52 JOB06149 *IEC704A L 458,B00234,NL,NOCOMP,ADRFL3,TAPEC6
09.43.52 JOB06149 *13 IEC704A REPLY 'VOLSER,OWNER INFORMATION','M'OR'U'
09.44.00 JOB06149  R 13,B00234
09.44.06 JOB06149  IECTMS9 458,B00234,ADRFL3  ,SYSUT2  ,98000 ,001,0.ADRFL3.R0000006
09.44.08 JOB06149  IEC705I TAPE ON 458,B00234,NL,NOCOMP,ADRFL3,TAPEC6
09.47.05 JOB06149  IEC502E RK 458,B00234,NL,ADRFL3,TAPEC6
09.47.05 JOB06149 *IEC501A M 458,B00235,NL,NOCOMP,ADRFL3,TAPEC6
09.48.31 JOB06149  IEC512I LBL ERR 458,ROMCN2,NL,B00235,NL,ADRFL3,TAPEC6
09.48.31 JOB06149 *IEC534D A 458,ROMCN2,NL,ADRFL3,TAPEC6
09.48.31 JOB06149 *16 IEC534D REPLY 'U'-USE OR 'M'-UNLOAD
09.50.23 JOB06149  R 16,U
09.50.25 JOB06149 *IEC704A L 458,B00235,NL,NOCOMP,ADRFL3,TAPEC6
09.50.25 JOB06149 *18 IEC704A REPLY 'VOLSER,OWNER INFORMATION','M'OR'U'
09.50.42 JOB06149  R 18,B00235
09.50.48 JOB06149  IECTMS9 458,B00235,ADRFL3  ,SYSUT2  ,98000 ,001,0.ADRFL3.R0000006
09.50.51 JOB06149  IEC705I TAPE ON 458,B00235,NL,NOCOMP,ADRFL3,TAPEC6
09.51.22 JOB06149 *IEF233A M 455,B00236,,ADRFL3,TAPEC7
09.53.51 JOB06149  IEC512I LBL ERR 455,ROMBM1,NL,B00236,NL,ADRFL3,TAPEC7
09.53.51 JOB06149 *IEC534D A 455,ROMBM1,NL,ADRFL3,TAPEC7
09.53.51 JOB06149 *20 IEC534D REPLY 'U'-USE OR 'M'-UNLOAD
09.53.58 JOB06149  R 20,U
09.54.01 JOB06149 *IEC704A L 455,B00236,NL,NOCOMP,ADRFL3,TAPEC7
09.54.01 JOB06149 *21 IEC704A REPLY 'VOLSER,OWNER INFORMATION','M'OR'U'
09.54.10 JOB06149  R 21,B00236
09.54.16 JOB06149  IECTMS9 455,B00236,ADRFL3  ,SYSUT2  ,98000 ,001,0.ADRFL3.R0000007
09.54.20 JOB06149  IEC705I TAPE ON 455,B00236,NL,NOCOMP,ADRFL3,TAPEC7
09.57.37 JOB06149  IEC502E RK 455,B00236,NL,ADRFL3,TAPEC7
09.57.37 JOB06149 *IEC501A M 455,B00237,NL,NOCOMP,ADRFL3,TAPEC7
10.00.07 JOB06149  IEC512I LBL ERR 455,ROMBM2,NL,B00237,NL,ADRFL3,TAPEC7
10.00.07 JOB06149 *IEC534D A 455,ROMBM2,NL,ADRFL3,TAPEC7
10.00.07 JOB06149 *22 IEC534D REPLY 'U'-USE OR 'M'-UNLOAD
10.00.18 JOB06149  R 22,U
10.00.25 JOB06149 *IEC704A L 455,B00237,NL,NOCOMP,ADRFL3,TAPEC7
10.00.25 JOB06149 *23 IEC704A REPLY 'VOLSER,OWNER INFORMATION','M'OR'U'
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10.00.34 JOB06149  R 23,B00237
10.01.34 JOB06149  IECTMS9 455,B00237,ADRFL3  ,SYSUT2  ,98000 ,001,0.ADRFL3.R0000007
10.01.36 JOB06149  IEC705I TAPE ON 455,B00237,NL,NOCOMP,ADRFL3,TAPEC7
10.01.37 JOB06149 *IEC501A M 455,B00238,NL,NOCOMP,ADRFL3,TAPEC7
10.01.37 JOB06149  IEC512I LBL ERR 455,ROMBM2,NL,B00237,NL,ADRFL3,TAPEC7
10.01.37 JOB06149 *IEC534D A 455,ROMBM2,NL,ADRFL3,TAPEC7
10.01.37 JOB06149 *22 IEC534D REPLY 'U'-USE OR 'M'-UNLOAD
10.02.18 JOB06149  R 22,U
10.02.25 JOB06149 *IEC704A L 455,B00238,NL,NOCOMP,ADRFL3,TAPEC7
10.02.25 JOB06149 *23 IEC704A REPLY 'VOLSER,OWNER INFORMATION','M'OR'U'
10.02.34 JOB06149  R 23,B00238
10.02.34 JOB06149  IECTMS9 455,B00238,ADRFL3  ,SYSUT2  ,98000 ,001,0.ADRFL3.R0000007
10.02.36 JOB06149  IEC705I TAPE ON 455,B00238,NL,NOCOMP,ADRFL3,TAPEC7
10.04.08 JOB06149  IEF234E K 459,B00233,PVT,ADRFL3
10.04.08 JOB06149  IEF234E K 458,B00235,PVT,ADRFL3
10.04.08 JOB06149  IEF234E K 455,B00237,PVT,ADRFL3
10.10.08 JOB06149  IEF234E K 455,B00238,PVT,ADRFL3
10.10.08 JOB06149  NCC802I ADRFL3   ENDED 04/24/91, CODE     0, ELAPSED    24:06, CPU      :04, EXCPS    3161
10.10.08 JOB06149  $HASP395 ADRFL3   ENDED

------ JES2 JOB STATISTICS ------
    24 APR 91 JOB EXECUTION DATE
           71 CARDS READ
          472 SYSOUT PRINT RECORDS
            0 SYSOUT PUNCH RECORDS
           35 SYSOUT SPOOL KBYTES
        24.10 MINUTES EXECUTION TIME
        1 //ADRFL3 JOB (NER1RSMRP,B012),'TCOPY',PRTY=2,NOTIFY=ADR,
          //     TIME=(,29),MSGLEVEL=(1,1),MSGCLASS=P
          ***ROUTE PRINT RMT378
          ***AFTER ADRFL
          ***DNX ADR USER0$DISK:<ADR>ROMNET.DAT
        2 //TAPEC1 EXEC PGM=IEBGENER
        3 //SYSPRINT DD SYSOUT=*
        4 //SYSIN DD DUMMY
          ***  INPUT FILE MUST ALREADY EXIST
        5 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.NOBKUP.IC.FV1872X,
          //   DISP=OLD
          ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
        6 //SYSUT2  DD UNIT=TAPE,VOL=SER=B00233,
          //  LABEL=(12,NL,EXPDT=98000),DISP=(NEW,KEEP)
        7 //TAPEC2 EXEC PGM=IEBGENER
        8 //SYSPRINT DD SYSOUT=*
        9 //SYSIN DD DUMMY
          ***  INPUT FILE MUST ALREADY EXIST
       10 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.NOBKUP.BC.FV1872X,
          //   DISP=OLD
          ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
       11 //SYSUT2  DD UNIT=TAPE,VOL=(,RETAIN,,,REF=*.TAPEC1.SYSUT2),
          //  LABEL=(13,NL,EXPDT=98000),DISP=(NEW,KEEP)
       12 //TAPEC3 EXEC PGM=IEBGENER
       13 //SYSPRINT DD SYSOUT=*
       14 //SYSIN DD DUMMY
          ***  INPUT FILE MUST ALREADY EXIST
       15 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.NOBKUP.BTRK.FV1873X,
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```
         //   DISP=OLD
         ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
      16 //SYSUT2  DD UNIT=TAPE,VOL=(,RETAIN,,,REF=*.TAPEC1.SYSUT2),
         //  LABEL=(14,NL,EXPDT=98000),DISP=(NEW,KEEP)
      17 //TAPEC4 EXEC PGM=IEBGENER
      18 //SYSPRINT DD SYSOUT=*
      19 //SYSIN DD DUMMY
         ***  INPUT FILE MUST ALREADY EXIST
      20 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.RNETIC.FV1883X,
         //   DISP=OLD
         ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
      21 //SYSUT2  DD UNIT=TAPE,VOL=(,RETAIN,,,REF=*.TAPEC1.SYSUT2),
         //  LABEL=(15,NL,EXPDT=98000),DISP=(NEW,KEEP)
      22 //TAPEC5 EXEC PGM=IEBGENER
      23 //SYSPRINT DD SYSOUT=*
      24 //SYSIN DD DUMMY
         ***  INPUT FILE MUST ALREADY EXIST
      25 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.RESTART.FV1883X,
         //   DISP=OLD
         ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
      26 //SYSUT2  DD UNIT=TAPE,VOL=(,RETAIN,,,REF=*.TAPEC1.SYSUT2),
         //  LABEL=(16,NL,EXPDT=98000),DISP=(NEW,KEEP)
      27 //TAPEC6 EXEC PGM=IEBGENER
      28 //SYSPRINT DD SYSOUT=*
      29 //SYSIN DD DUMMY
         ***  INPUT FILE MUST ALREADY EXIST
      30 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.NOBKUP.CONC.FV1873X,
         //   DISP=OLD
         ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
      31 //SYSUT2  DD UNIT=TAPE,VOL=SER=(B00234,B00235),
         //  LABEL=(1,NL,EXPDT=98000),DISP=(NEW,KEEP)
      32 //TAPEC7 EXEC PGM=IEBGENER
      33 //SYSPRINT DD SYSOUT=*
      34 //SYSIN DD DUMMY
         ***  INPUT FILE MUST ALREADY EXIST
      35 //SYSUT1 DD UNIT=DISK,DSN=ADRNER1.NOBKUP.BMAT.FV1873X,
         //   DISP=OLD
         ***  OUTPUT TAPE WILL TAKE DCB PARMETERS FROM INPUT FILE
      36 //SYSUT2  DD UNIT=TAPE,VOL=SER=(B00236,B00237,B00238),
         //  LABEL=(1,NL,EXPDT=98000),DISP=(NEW,KEEP)
STMT NO. MESSAGE

       6 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
       6 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      11 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
      11 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      16 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
      16 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      21 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
      21 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      26 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
      26 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      31 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
      31 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
      36 IEF604I EXPDT SUBPARAMETER OF LABEL KEYWORD SPECIFIES ZERO DAYS VALUE
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      36 IEF648I INVALID DISP FIELD- PASS SUBSTITUTED
1CH70001I ADR      LAST ACCESS AT 09:37:20 ON WEDNESDAY, APRIL 24, 1991
IEF236I ALLOC. FOR ADRFL3 TAPEC1
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I 84B  ALLOCATED TO SYSUT1
IGD100I 459 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC1 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000101.?              SYSOUT
IEF285I   ADRNER1.NOBKUP.IC.FV1872X                   KEPT
IEF285I   VOL SER NOS= ROM002.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000001      PASSED
IEF285I   VOL SER NOS= B00233.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB06149 ADRFL3   STEP TAPEC1                              CC:    0 *
NCC900I                                                                        *
NCC906I START 04/24/91  9:40:03   STOP 04/24/91  9:41:23  ELAPSED        1:20 *
NCC900I                                                                        *
NCC908I TCB      :00.07, SRB      :00.01, VEC      :00.00   TOTAL      :00.08 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA       4, MT       4, OTHER        0  TOTAL           8 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(84B):      4    SYSUT2(459):      4 *
NCC900I                                                                        *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW    52K, SYS  224K; ABOVE    412K, SYS  9220K; TOTAL       9908K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP    29, HSPACE      0 TOTAL          29 *
NCC916I  OUT:      0, VIO      0, SWAP    29, HSPACE      0 TOTAL          29 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                                     *
NCC918I   CPU       :00.08 @  $580.00/HR                               $.01 *
NCC918I   I/O            8 @     $.22/1000                             $.00 *
NCC918I                                                            ----------- *
NCC918I                                                TOTAL COST:        $.01 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF373I STEP /TAPEC1  / START 91114.0940
IEF374I STEP /TAPEC1  / STOP  91114.0941 CPU    0MIN 00.07SEC SRB    0MIN 00.01SEC VIRT    52K SYS   224K EXT    412K SYS    9220K
IEF236I ALLOC. FOR ADRFL3 TAPEC2
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I 84B  ALLOCATED TO SYSUT1
IGD100I 459 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC2 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000102.?              SYSOUT
IEF285I   ADRNER1.NOBKUP.BC.FV1872X                   KEPT
IEF285I   VOL SER NOS= ROM002.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000002      PASSED
IEF285I   VOL SER NOS= B00233.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB06149 ADRFL3   STEP TAPEC2                              CC:    0 *
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NCC900I                                                                  *
NCC906I START 04/24/91  9:41:23   STOP 04/24/91  9:42:02  ELAPSED        :39 *
NCC900I                                                                  *
NCC908I TCB      :00.30, SRB      :00.05, VEC      :00.00   TOTAL      :00.35 *
NCC900I                                                                  *
NCC910I I/O COUNTS: DA      39, MT      38, OTHER        0  TOTAL         77 *
NCC900I                                                                  *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(84B):     39    SYSUT2(459):     38 *
NCC900I                                                                  *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW    84K, SYS  232K; ABOVE    412K, SYS  9220K; TOTAL       9948K *
NCC900I                                                                  *
NCC916I PAGING COUNTS:                                                   *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                  *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                               *
NCC918I   CPU       :00.35 @  $580.00/HR                            $.06 *
NCC918I   I/O           77 @     $.22/1000                          $.02 *
NCC918I                                                         ---------- *
NCC918I                                              TOTAL COST:        $.08 *
NCC900I                                                                  *
NCC901I ************************************************************************
IEF373I STEP /TAPEC2  / START 91114.0941
IEF374I STEP /TAPEC2  / STOP  91114.0942 CPU    0MIN 00.30SEC SRB    0MIN 00.05SEC VIRT    84K SYS   232K EXT     412K SYS    9220K
IEF236I ALLOC. FOR ADRFL3 TAPEC3
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I 83D  ALLOCATED TO SYSUT1
IGD100I 459 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC3 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000103.?                SYSOUT
IEF285I   ADRNER1.NOBKUP.BTRK.FV1873X                   KEPT
IEF285I   VOL SER NOS= ROM005.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000003        PASSED
IEF285I   VOL SER NOS= B00233.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                  *
NCC904I JOB06149 ADRFL3   STEP TAPEC3                              CC:    0 *
NCC900I                                                                  *
NCC906I START 04/24/91  9:42:02   STOP 04/24/91  9:42:22  ELAPSED        :20 *
NCC900I                                                                  *
NCC908I TCB      :00.12, SRB      :00.03, VEC      :00.00   TOTAL      :00.15 *
NCC900I                                                                  *
NCC910I I/O COUNTS: DA      57, MT      57, OTHER        0  TOTAL        114 *
NCC900I                                                                  *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(83D):     57    SYSUT2(459):     57 *
NCC900I                                                                  *
NCC914I REGION USAGE:                            REGION REQUESTED       1000K *
NCC914I BELOW    44K, SYS  216K; ABOVE    420K, SYS  9228K; TOTAL       9908K *
NCC900I                                                                  *
NCC916I PAGING COUNTS:                                                   *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                  *
```

```
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                                  *
NCC918I   CPU       :00.15 @  $580.00/HR                              $.02 *
NCC918I   I/O          114 @     $.22/1000                              $.03 *
NCC918I                                                            ----------- *
NCC918I                                                TOTAL COST:       $.05 *
NCC900I                                                                      *
NCC901I ********************************************************************
IEF373I STEP /TAPEC3  / START 91114.0942
IEF374I STEP /TAPEC3  / STOP  91114.0942 CPU    0MIN 00.12SEC SRB    0MIN 00.03SEC VIRT    44K SYS   216K EXT     420K SYS    9228K
IEF236I ALLOC. FOR ADRFL3 TAPEC4
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IGD103I SMS ALLOCATED TO DDNAME SYSUT1
IGD100I 459 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC4 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000104.?                SYSOUT
IGD104I ADRNER1.RNETIC.FV1883X                        RETAINED,  DDNAME=SYSUT1
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000004        PASSED
IEF285I   VOL SER NOS= B00233.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                      *
NCC904I JOB06149 ADRFL3   STEP TAPEC4                                CC:    0 *
NCC900I                                                                      *
NCC906I START 04/24/91  9:42:22   STOP 04/24/91  9:42:25  ELAPSED         :03 *
NCC900I                                                                      *
NCC908I TCB      :00.07, SRB      :00.00, VEC      :00.00   TOTAL      :00.07 *
NCC900I                                                                      *
NCC910I I/O COUNTS: DA       4, MT       4, OTHER        0  TOTAL           8 *
NCC900I                                                                      *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(B14):      4    SYSUT2(459):      4 *
NCC900I                                                                      *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW    52K, SYS  224K; ABOVE    412K, SYS  9228K; TOTAL       9916K *
NCC900I                                                                      *
NCC916I PAGING COUNTS:                                                       *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL           0 *
NCC900I                                                                      *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                                  *
NCC918I   CPU       :00.07 @  $580.00/HR                              $.01 *
NCC918I   I/O            8 @     $.22/1000                              $.00 *
NCC918I                                                            ----------- *
NCC918I                                                TOTAL COST:       $.01 *
NCC900I                                                                      *
NCC901I ********************************************************************
IEF373I STEP /TAPEC4  / START 91114.0942
IEF374I STEP /TAPEC4  / STOP  91114.0942 CPU    0MIN 00.07SEC SRB    0MIN 00.00SEC VIRT    52K SYS   224K EXT     412K SYS    9228K
IEF236I ALLOC. FOR ADRFL3 TAPEC5
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IGD103I SMS ALLOCATED TO DDNAME SYSUT1
IGD100I 459 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC5 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000105.?                SYSOUT
IGD104I ADRNER1.RESTART.FV1883X                       RETAINED,  DDNAME=SYSUT1
```

```
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000005       PASSED
IEF285I   VOL SER NOS= B00233.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB06149 ADRFL3   STEP TAPEC5                              CC:    0 *
NCC900I                                                                        *
NCC906I START 04/24/91  9:42:25   STOP 04/24/91  9:42:28  ELAPSED        :03 *
NCC900I                                                                        *
NCC908I TCB      :00.08, SRB      :00.00, VEC      :00.00   TOTAL      :00.08 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA       1, MT       1, OTHER        0  TOTAL          2 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(AE7):      1    SYSUT2(459):      1 *
NCC900I                                                                        *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW   196K, SYS  256K; ABOVE    308K, SYS  9228K; TOTAL       9988K *
NCC900I                                                                        *
NCC916I PAGING COUNTS:                                                         *
NCC916I  IN:       0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC916I  OUT:      0, VIO      0, SWAP     0, HSPACE      0 TOTAL          0 *
NCC900I                                                                        *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                                     *
NCC918I   CPU       :00.08 @  $580.00/HR                              $.01 *
NCC918I   I/O            2 @     $.22/1000                            $.00 *
NCC918I                                                          ---------- *
NCC918I                                              TOTAL COST:        $.01 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF373I STEP /TAPEC5  / START 91114.0942
IEF374I STEP /TAPEC5  / STOP  91114.0942 CPU    0MIN 00.08SEC SRB    0MIN 00.00SEC VIRT   196K SYS   256K EXT     308K SYS    9228K
IEF236I ALLOC. FOR ADRFL3 TAPEC6
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I A55  ALLOCATED TO SYSUT1
IGD100I 458 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC6 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000106.?                SYSOUT
IEF285I   ADRNER1.NOBKUP.CONC.FV1873X                   KEPT
IEF285I   VOL SER NOS= ADM001.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000006       PASSED
IEF285I   VOL SER NOS= B00234,B00235.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                        *
NCC904I JOB06149 ADRFL3   STEP TAPEC6                              CC:    0 *
NCC900I                                                                        *
NCC906I START 04/24/91  9:42:28   STOP 04/24/91  9:51:22  ELAPSED       8:53 *
NCC900I                                                                        *
NCC908I TCB      :00.84, SRB      :00.24, VEC      :00.00   TOTAL      :01.08 *
NCC900I                                                                        *
NCC910I I/O COUNTS: DA     489, MT     490, OTHER        0  TOTAL        979 *
NCC900I                                                                        *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(A55):    489    SYSUT2(458):    490 *
NCC900I                                                                        *
NCC914I REGION USAGE:                           REGION REQUESTED       1000K *
NCC914I BELOW    52K, SYS  232K; ABOVE    412K, SYS  9228K; TOTAL       9924K *
```

```
NCC900I                                                                  *
NCC916I PAGING COUNTS:                                                   *
NCC916I  IN:       0, VIO      0, SWAP   110, HSPACE      0 TOTAL      110 *
NCC916I  OUT:      0, VIO      0, SWAP   110, HSPACE      0 TOTAL      110 *
NCC900I                                                                  *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                               *
NCC918I   CPU        :01.08 @  $580.00/HR                          $.17 *
NCC918I   I/O           979 @     $.22/1000                        $.22 *
NCC918I                                                        ---------- *
NCC918I                                              TOTAL COST:     $.39 *
NCC900I                                                                  *
NCC901I ************************************************************************
IEF373I STEP /TAPEC6  / START 91114.0942
IEF374I STEP /TAPEC6  / STOP  91114.0951 CPU    0MIN 00.84SEC SRB    0MIN 00.24SEC VIRT    52K SYS   232K EXT     412K SYS    9228K
IEF236I ALLOC. FOR ADRFL3 TAPEC7
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I A55  ALLOCATED TO SYSUT1
IGD100I 455 ALLOCATED TO DDNAME SYSUT2   DATACLAS (        )
IEF142I ADRFL3 TAPEC7 - STEP WAS EXECUTED - COND CODE 0000
IEF285I   ADR.ADRFL3.JOB06149.D0000107.?                SYSOUT
IEF285I   ADRNER1.NOBKUP.BMAT.FV1873X                   KEPT
IEF285I   VOL SER NOS= ADM001.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000007        PASSED
IEF285I   VOL SER NOS= B00236,B00237,B00238.
NCC902I ***************** U.S.EPA  SYSTEM EPAG - STEP SUMMARY *****************
NCC900I                                                                  *
NCC904I JOB06149 ADRFL3   STEP TAPEC7                            CC:    0 *
NCC900I                                                                  *
NCC906I START 04/24/91  9:51:22   STOP 04/24/91 10:04:08  ELAPSED     12:46 *
NCC900I                                                                  *
NCC908I TCB      :01.26, SRB      :00.51, VEC      :00.00   TOTAL    :01.77 *
NCC900I                                                                  *
NCC910I I/O COUNTS: DA     986, MT     987, OTHER        0  TOTAL      1973 *
NCC900I                                                                  *
NCC912I I/O BY DDNAME(UNIT)        SYSUT1(A55):    986    SYSUT2(455):    987 *
NCC900I                                                                  *
NCC914I REGION USAGE:                            REGION REQUESTED     1000K *
NCC914I BELOW    44K, SYS  232K; ABOVE    444K, SYS  9228K; TOTAL     9948K *
NCC900I                                                                  *
NCC916I PAGING COUNTS:                                                   *
NCC916I  IN:       0, VIO      0, SWAP   106, HSPACE      0 TOTAL      106 *
NCC916I  OUT:      0, VIO      0, SWAP   106, HSPACE      0 TOTAL      106 *
NCC900I                                                                  *
NCC918I STEP CHARGES AT PRTY  2 (FACTOR=1)                               *
NCC918I   CPU        :01.77 @  $580.00/HR                          $.29 *
NCC918I   I/O          1973 @     $.22/1000                        $.43 *
NCC918I                                                        ---------- *
NCC918I                                              TOTAL COST:     $.72 *
NCC900I                                                                  *
NCC901I ************************************************************************
IEF373I STEP /TAPEC7  / START 91114.0951
IEF374I STEP /TAPEC7  / STOP  91114.1004 CPU    0MIN 01.26SEC SRB    0MIN 00.51SEC VIRT    44K SYS   232K EXT     444K SYS    9228K
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000001        DELETED
IEF285I   VOL SER NOS= B00233.
```

```
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000002       DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000003       DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000004       DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000005       DELETED
IEF285I   VOL SER NOS= B00233.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000006       DELETED
IEF285I   VOL SER NOS= B00234,B00235.
IEF285I   SYS91114.T094002.RA000.ADRFL3.R0000007       DELETED
IEF285I   VOL SER NOS= B00236,B00237,B00238.
NCC903I ***************** U.S.EPA  SYSTEM EPAG -  JOB SUMMARY *****************
NCC900I                                                                        *
NCC905I JOB06149 ADRFL3      7 STEPS                                CC:    0 *
NCC900I                                                                        *
NCC907I               SUBMIT WEDNESDAY 04/24/91  9:40:04  ON QUEUE        :00 *
NCC900I                                                                        *
NCC907I START 04/24/91  9:40:03   STOP 04/24/91 10:04:08  ELAPSED       24:06 *
NCC900I                                                                        *
NCC909I TCB      :02.74, SRB      :00.84, VEC      :00.00   TOTAL      :03.58 *
NCC900I                                                                        *
NCC911I I/O COUNTS: DA    1580, MT    1581, OTHER        0  TOTAL        3161 *
NCC900I                                                                        *
NCC919I  JOB CHARGES AT PRTY  2 (FACTOR=1)                                     *
NCC919I   CPU       :03.58 @  $580.00/HR                                $.58 *
NCC919I   I/O         3161 @     $.22/1000                              $.70 *
NCC918I                                                             ----------- *
NCC919I                                                TOTAL COST:      $1.28 *
NCC900I                                                                        *
NCC901I ***********************************************************************
IEF375I  JOB /ADRFL3  / START 91114.0940
IEF376I  JOB /ADRFL3  / STOP  91114.1004 CPU    0MIN 02.74SEC SRB    0MIN 00.84SEC
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. RCDS IN 1,826 OUT 1,826
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. RCDS IN 20,451 OUT 20,451
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. BLKS IN 1,527 OUT 1,527
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. RCDS IN 1,833 OUT 1,833
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. RCDS IN 752 OUT 752
DATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. RCDS IN 264,057 OUT 264,057
LDATA SET UTILITY - GENERATE
PLS081S END PLSORT COPY. BLKS IN 18,720 OUT 18,720
```

APPENDIX C

ROM DOMAINS

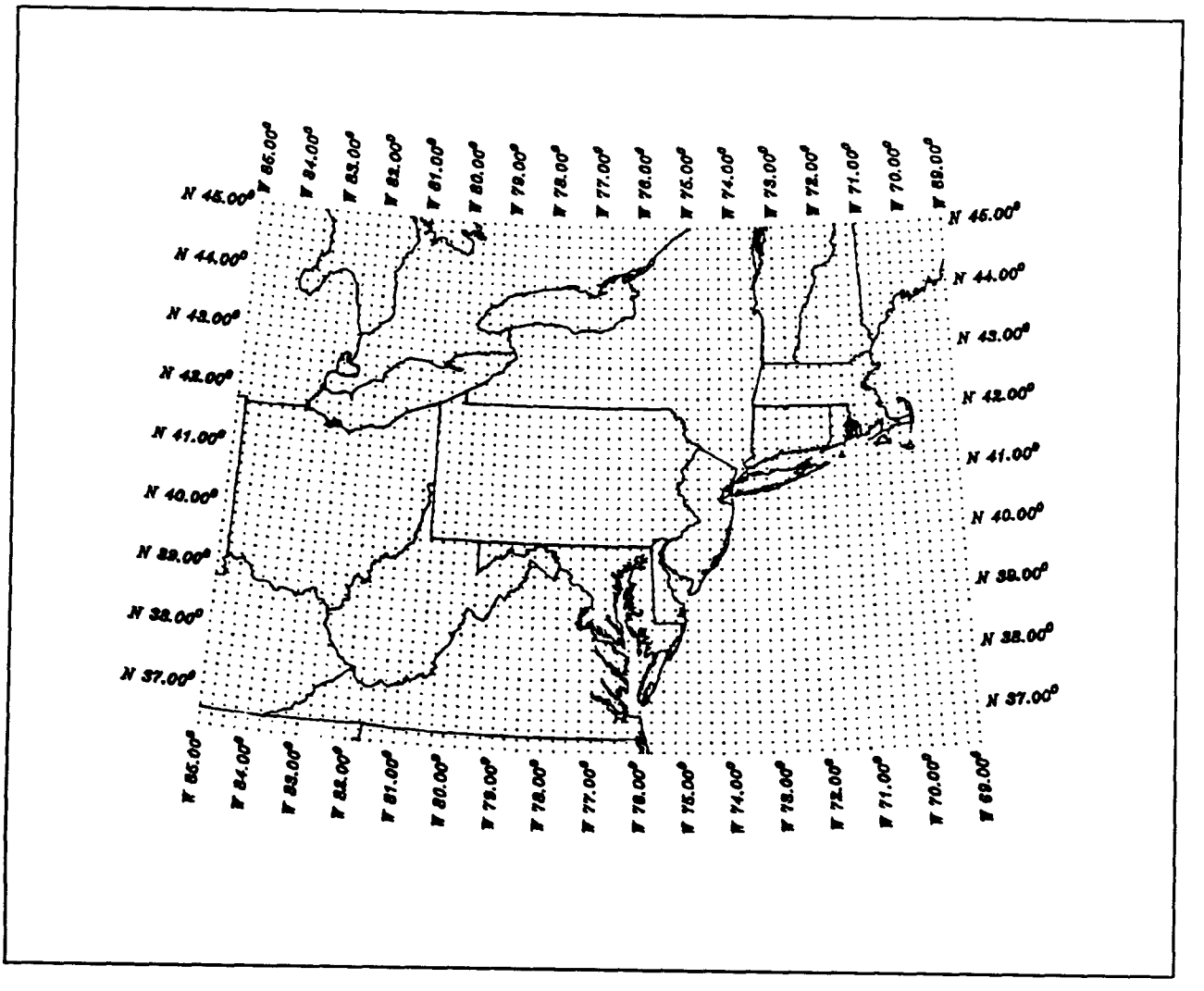

Figure C-1. The ROMNET domain.

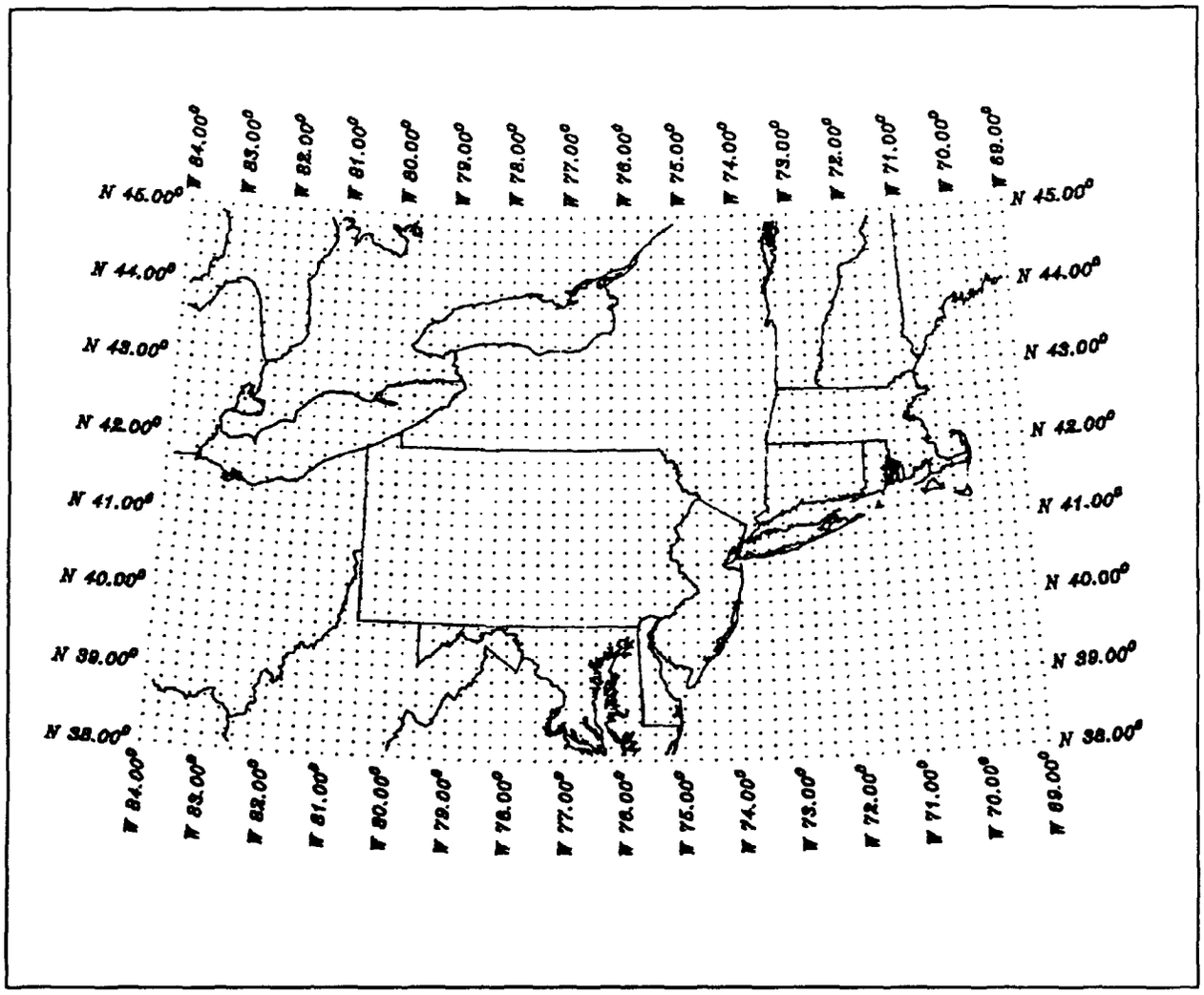

Figure C-2. The NEROS domain.

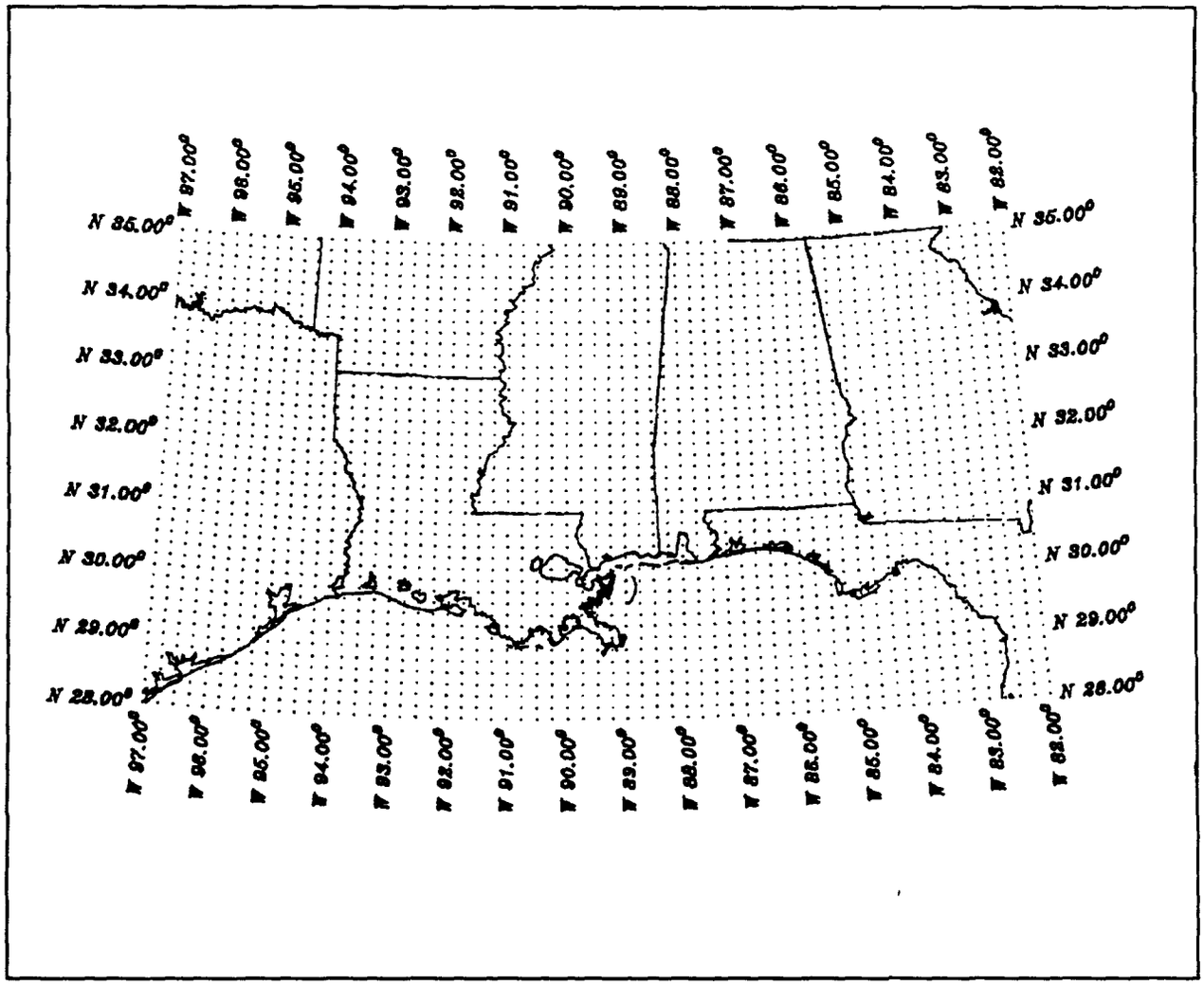

Figure C-3. The SEROS domain.