

**Computer Sciences Corporation**  
System Sciences Division

June 6, 1997  
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National Aeronautics and  
Space Administration  
Goddard Space Flight Center  
Greenbelt, Maryland 20771

Attention: Mr. Willie Fuller  
Code 513.0  
Building 32, Room S212D

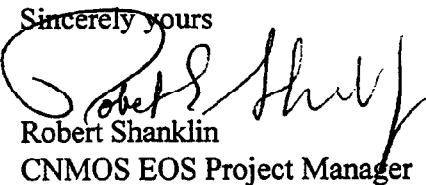
CSC  
Subject: Contract No.: NAS5-31000  
Subcontract No.: HQ001057  
EOS SLA 9 (Work Element 3.2.3 in SLA)  
EOSDIS Test System (ETS) Multimode Portable Simulator (MPS)  
Delivery of the Release 1.2.0 Software

Dear Mr. Fuller:

The CNMOS contractor is pleased to deliver Release 1.2.0 of the Multimode Portable Simulator (MPS) of the ETS. Release 1.2.0 of the MPS resolves 16 Discrepancy Reports (DRs), providing support for the AM-1 mission. The list of the resolved DRs is included as Attachment E. Release 1.2.0 has been tested with the Version 12 of the Project Data Base (PDB), which has been installed on the MPS in Building 32.

This delivery package contains 12 attachments as listed below, describing delivery contents, build instructions, resolved and unresolved DRs, system limitations and workarounds, requirements compliance matrix changes, and release history. A completed Mission Systems Configuration Management (MSCM) form is included in the Attachment L.

If you have any questions concerning this delivery, please call me at (301) 794-2300.

Sincerely yours  
  
Robert Shanklin  
CNMOS EOS Project Manager

Delivery Package Reviewed by:

  
Walter Hall

CNMOS EOS Product Assurance Officer

10110 Aerospace Road  
Lanham-Seabrook, Maryland 20706-2262  
301.794.4460

Delivery of the Release 1.2.0 Software  
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The following attachments contain the details of the MPS software.

- Attachment A - contains the description of the delivery contents for this release  
Attachment B - describes the operational changes  
Attachment C - contains the instructions to build and install the software  
Attachment D - contains the special operating instructions  
Attachment E - contains a list of the resolved Discrepancy Reports (DRs)  
Attachment F - contains a list of the unresolved Discrepancy Reports (DRs)  
Attachment G - contains the matrix of requirements addressed by this release  
Attachment H - contains the known system limitations  
Attachment I - contains the release history summary matrix  
Attachment J - contains a list of the delivery contents  
Attachment K - contains documentation references  
Attachment L - contains the Mission Systems Configuration Management (MSCM) form

Distribution: (\* - Letter Only)

NASA

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Centa, A.  
Herring, E. \*  
Johns, A. \*  
Kelly, A.  
Ondrus, P.\*  
Smith, J.  
ESDIS Library

Bradbury, T.

Cordier, G

Abshire, G.\*  
Crowley, A.\*  
Hall, W.  
Helton, K. (CM)  
Labus, J.  
McGarry, J.  
Noone, E.  
Shah, Raj  
Sharma, K.\*  
Zavaleta, H.  
Task File

### **Attachment A - Description of Delivery Contents**

The Multimode Portable Simulator Release 1.2.0 consists of custom software only and is being delivered via one 4 mm magnetic tape (a.k.a., DAT) and four 3.5" IBM PC compatible diskettes (a.k.a., floppies). Two copies of the media are being delivered.

A soft copy of the MPS Release 1.2.0 attachments is being delivered. The attachments have been formatted on a 3.5" IBM PC diskette utilizing the MS WORD version 6.0 word processing tool.

## **Attachment B - Summary of Operational Changes**

- 1) The ability to execute stored commands on a timed basis has been added. Command execution is limited to setting end-item verifiers and displaying messages to a session log. Stored command timing is referenced to UTC versus spacecraft time. The MPS stored command simulation is subject to the following constraints:

### **ATC**

- Limited to 360 commands
- Begins executing as soon as the load is complete and stops when either a Halt pseudo-op is encountered or all the commands have been executed
- Inhibit ID status not implemented
- GUI window for stored command loads and counts not updated

### **RTCS**

- One RTCS has been implemented
- The RTCS executes out of a common memory data/load buffer; if an ATC and RTCS are to be executed simultaneously, the ATC must be loaded first
- Inhibit ID and Inhibit ID status have not been implemented
- Execution verification limited to end-item verifier settings and GUI display messages

At present, ATC/RTCS pointers are not updated. The MPS recognition of ATC and RTCS is based on Flight Software Table IDs of 11 and 12, respectively. Thus, if instrument ATCs or RTCS are different than the spacecraft ATC or RTCS, the MPS will handle them as a generic data loads.

- 2) Initial Value processing has been implemented as follows:

- The PDB Translator software creates two files; ivalue.pdb and initial\_values\_xxx.lst, where xxx is replaced by the PDB version number.
- initial\_values\_xxx.lst is an ASCII text file which contains the mnemonics and corresponding values (in decimal and Hex) of all of the telemetry parameters that will be set to initial values. It may be viewed on a PC screen by any text editor capable of handling large files, or printed out.
- The ivalue.pdb file contains in binary form the same information as initial\_values\_xxx.lst. ivalue.pdb is read in by the MPS during initialization and is used to set the telemetry parameters.
- The criteria used for setting telemetry parameters to an initial value is as follows. If the parameter is unsigned, all bits except the Most Significant Bit are set. This sets the parameter to the midpoint of its possible range of values. If the parameter is signed, it is set to zero. Again, this sets it to the midpoint of its range.
- The telemetry parameter settings may result in some discrete parameters being set to error conditions. If this happens, or if other values are desired, then a scenario file may be generated that is executed soon after MPS startup to reset telemetry parameters as desired.

- 3) Processing of memory loads/dumps has been implemented as follows:

- The MPS has one buffer area for memory loads that is 10,000 bytes in size. The MPS will ignore attempts to initiate memory loads greater than 10,000 bytes in size and send a message to the GUI to indicate that the number of bytes requested to be loaded exceeds the

MPS buffer size. The MPS will also ignore attempts to initiate memory loads that request to load 0 bytes and send a message to the GUI.

- The MPS performs the memory load function for only one remote terminal user at one time. That is, if the MPS is currently performing a memory load for one remote terminal user (eg. CTIU1) and the MPS receives a memory load initiate command for another remote terminal user (eg. CTIU2), the MPS will "terminate" the memory load function in progress (CTIU1) and begin performing the memory load function for the new user (CTIU2).
  - The MPS will ignore attempts to initiate memory dumps greater than 10,000 bytes in size and send a message to the GUI to indicate that the number of bytes requested to be dumped exceeds the MPS buffer size.
  - The MPS performs the memory dump function for only one remote terminal user at one time. That is, if the MPS is currently performing a memory dump for one remote terminal user (eg. CTIU1) and the MPS receives a memory dump initiate command for another remote terminal user (eg. CTIU2), the MPS will "terminate" the memory dump function in progress (CTIU1) and begin performing the memory dump function for the new user (CTIU2). The MPS will also ignore attempts to initiate memory dumps that request to dump 0 bytes and send a message to the GUI.
- 4) The MPS does not properly simulate the following end-item verifiers due to inconsistencies in the PDB (When a more stable PDB becomes available, code will need to be added to properly simulate these end-item verifiers.):
- CDH\_SR\_ACT\_GATHST
  - CDH\_SR\_ACT\_DUMPST
  - GNC\_SR\_ST1\_DOWNLOAD
  - GNC\_SR\_ST2\_DOWNLOAD
- 5) The replay flag in the VCDU header can now be toggled on and off to assist the user to simulate playback data. The "U\_SETREPLAY\_ON" command can be entered through the user command GUI option, and it will set the replay bit to 1. The bit will remain set until the user enters the "U\_SETREPLAY\_OFF" command through the user command GUI option, at which time the bit will be set to 0. The above commands will only affect the replay flag for Q channel data.
- 6) Housekeeping files can now be read in as telemetry for spacecraft mode. The file will be read into Q channel telemetry only. When the file is finished, the simulator will continue to generate telemetry in housekeeping format. The filenames are case sensitive.
- Note: For the current implementation, after accessing the user command window, the user needs to toggle the PDB option first, and then select HK file when selecting a HK file. This will keep any interference between the user command box and the HK box both to a minimum.
- 7) Dump data will now be placed in the telemetry Diagnostic 1K and Diagnostic 16K formats. The simulator will allow dumps on either the I or Q channel, but not both at the same time. If the Diagnostic format is selected for both channels, the data will be dumped to the Q channel. To dump data to the I channel only, the packet format for the Q channel (channel 2) must be set to HK, H&S, or Standby.

## **Attachment C - Release 1.2.0 Build Instructions**

### **C.1 MVME187 SW:**

- a) Put DAT delivery tape into 4mm tape drive located in VME chassis.
- b) At M177 console, copy compressed tar file to system disk:  
`tar xfbv stape:0 100`
- c) FTP compressed tar file to MPS MVME187 (use si\_t account).
- d) At M177 console, delete compressed tar file from system disk:  
`dl MPS_1.2.0.tar.Z`
- e) Log onto the M187 under the si\_t account.
- f) Uncompress the compressed tar file:  
`uncompress MPS_1.2.0.tar`
- g) Extract the installation script from the tar file:  
`tar xvf MPS_1.2.0.tar ./ets_install`
- h) Execute the installation script:  
`ets_install MPS target_directory MPS_1.2.0.tar`  
where *target\_directory* is the directory where the installation will occur
- i) If these values are not given in the command line, the installation script allows you to specify them during execution.
- j) Answer the prompts from the ets\_install script. The default answer is given in square brackets “[ ]”.
- k) Review the installation results file (ets\_build.log) for errors.

### **C2. MVME177 SW:**

- a) Create the following source file directories on the PC:  
`gt_dir, ds_dir, sm_dir, to_dir, inc, xt_dir, ty_dir, ad_dir, op_dir, mc_dir,  
di_dir, ti_dir, sc_dir, ci_dir, ut_dir, mt_dir, network, in_dir, mo_dir`
- b) Copy all source files from 3.5" floppys (disk1 and disk2) to their corresponding directories on the PC. Make sure all the files (header, etc.) are copied from the floppies.
- c) All source files must be compiled and linked. **Compile the contents of *ut\_dir* first.** For example, in the “gt\_dir” directory, first compile all the source files by typing “comp\_gt”. When the compilation is finished link the files by typing “link link\_gt”. An executable named “link\_gt.sy” will be created, this must be renamed to “xgt”. Each directory has its own compile batch file and link file as shown in the table below:

| <b>directory</b> | <b>compile batch file</b> | <b>link file(s)</b> | <b>executable</b> |
|------------------|---------------------------|---------------------|-------------------|
| ut_dir           | comp_ut                   | (no link file)      |                   |
| gt_dir           | comp_gt                   | link_gt             | xgt               |
| ds_dir           | comp_ds                   | link_ds             | xds               |
| sm_dir           | comp_sm                   | link_sm             | xsm               |
| to_dir           | comp_to                   | link_to             | xto               |
| xt_dir           | comp_xt                   | link_xt             | xxt               |
| ty_dir           | comp_ty                   | link_ty             | xty               |
| ad_dir           | comp_ad                   | link_ad             | xad               |
| op_dir           | comp_op                   | link_op             | xop               |
| mc_dir           | comp_mc                   | link_mc             | xmc               |
| di_dir           | comp_di                   | link_di             | xdi               |
| ti_dir           | comp_ti                   | link_ti             | xti               |
| sc_dir           | comp_sc                   | link_sc             | xsc               |
| ci_dir           | comp_ci                   | link_ci             | xcii              |
| mt_dir           | comp_mt                   | link_mt             | xmt               |
| in_dir           | comp_in                   | link_in             | xin               |
| mo_dir           | comp_mo                   | link_mo             | xmo               |
| network          | comp_net                  | udpt1               | udpt1.sy†         |
|                  |                           | udpt2               | udpt2.sy†         |
|                  |                           | udpcmd              | udpcmd.sy†        |
|                  |                           | send                | send.sy†          |

- d) Create, on the VME and PC, a directory structure like the following, where [root] is the base directory. It may be a subdirectory itself.

```
[root]      /ACPT
            /DBACPT
```

- e) All executable files must be renamed and brought over to the VME. Rename and copy the \*.sy files in each directory to the VME [root]/ACPT directory created, according to the executable column above. **The four network files marked with “†” are copied without being renamed.**
- f) The remaining VME files are supplied on 3.5" floppy diskettes. The files on the diskettes are copied to the VME as per the following instructions.
- g) Diskette 3 has the following directory structure:

```
<root>  \BLD1_2  \ACPT
```

The root directory contains a single file, PKUNZIP.EXE, which is supplied to ensure that unzip operations work correctly.

The BLD1\_2 directory contains the files RUNACPT and CLEAR. Use FTP to copy these files to the [root] directory on the VME.

The BLD1\_2\ACPT subdirectory contains copies of all the executables as well as *ac.bkp*. If ever the system is not built directly from the delivered source code, use FTP to copy the executables and *ac.bkp* to the [root]/ACPT directory of the VME.

- h) Diskette 4 contains a single ZIP file, PDBVER12.ZIP, which contains all of the data files necessary for the VME DBACPT directory. Use PKUNZIP to explode this file onto the PC's hard drive. The following commands are suggested:

```
c:  
cd \[root]\DBACPT  
\ZIP\PKUNZIP -e A:\PDBVER12
```

- i) Next use FTP to copy all of the files to the VME [root]/DBACPT directory. The filenames and extensions must be in lower case on the VME. Two of the filenames became truncated when the files were ported to the PC. Restore the filenames using the following table as a guide. The PDOS command is rn <old\_name> <new\_name>. Case is important.

| <u>PC Source</u> | <u>VME Destination</u> |
|------------------|------------------------|
| mdl_tbl.db       | mdl_tables.db          |
| mdl_tlm_.db      | mdl_tlm_points.db      |

- j) After the copy operations are complete the files "RUNACPT", "CLEAR", "contig.ac", and "ac.bkp" will need to have their file type attribute changed from "SY" to "AC". The commands to do this are:

```
cd [root]  
sa RUNACPT,ac  
sa CLEAR,ac  
  
cd ACPT  
sa ac.bkp,ac  
  
cd ../DBACPT  
sa contig.ac,ac
```

- k) When FTP is used to copy PDB files, the files may become non-contiguous on the disk. While non-contiguous files will work perfectly well, the time needed for MPS bootup can lengthen considerably. Enter the following at the VME177 console to make the PDB files contiguous:

```
cd [root]/DBACPT  
contig.ac
```

### **C3. Execution Setup Procedures:**

- a) Many environment variables point to files and directories. The following files and directories must exist:

```
# ETS  
$ETS_RUN_ROOT/runtime/params (directory)  
$ETS_RUN_ROOT/runtime/log (directory)  
$ETS_RUN_ROOT/runtime/omd (directory)  
$ETS_RUN_ROOT/runtime/scenario (directory)  
$ETS_RUN_ROOT/runtime/help (directory)  
  
# MPS  
$ETS_PARAMS_DIR/mui_init.params  
$ETS_PROC_LOG_DIR
```

```

# Menu Controller
$ETS_RUN_ROOT/mmc_sample_icon_file (icon file)
$ETS_RUN_ROOT/runtime/temp (directory)
$ETS_RUN_ROOT/mmc (executable)
$ETS_RUN_ROOT/mmc_kill_processes.ksh (script file)
$ETS_RUN_ROOT/mmc_lrs_omd_start.csh (script file)
$ETS_RUN_ROOT/mmc_lrs_omd_stop.csh (script file)
$ETS_RUN_ROOT/mmc_lrs_tpce_start.csh (script file)
$ETS_RUN_ROOT/mmc_lrs_tpce_stop.csh (script file)

# OMDSIM
$ETS_RUN_ROOT/om_scenario_manager (executable)
$ETS_RUN_ROOT/om_scheduler (executable)
$ETS_RUN_ROOT/om_transmission_task (executable)
$ETS_RUN_ROOT/om_receiver (executable)
$ETS_RUN_ROOT/om_rec_sub (executable)
$ETS_RUN_ROOT/omdsim (executable)

# Rate Buffer Utility
$ETS_RUN_ROOT/rate_buffer (directory)
$ETS_RUN_ROOT/rbu (executable)

# Command Archive
$ETS_RUN_ROOT/cmd_archive (directory)
$ETS_RUN_ROOT/cau (executable)

```

NOTE: Filenames are limited to 32 characters; this includes the extension. Paths to files are limited to 80 characters. Full file specifications (path/filename) are thus limited to 112 characters.

- b) Ensure the environment variables in ets\_setup have been set (via the .login file).
- c) When installation is complete, add the following lines to your .login or .cshrc file in your home directory:

```

if (-e ~/etslogin) then
source ~/etslogin
else
echo ~/etslogin does not exist!
endif
cd $ETS_RUN_ROOT

```

### **Attachment D - Special Operating Instructions**

There are no special operating instructions for the MPS Release 1.2.0. Standard operating procedures are included in the draft copy of the User's Guide for the ETS Multimode Portable Simulator, dated June 1997. A typed review copy of this user's guide will be made available on the ETS homepage at the end of June.

## **Attachment E - Resolved Discrepancy Reports (DRs)**

The following list of DRs were closed with MPS Release 1.2.0. Detailed DR information can be obtained via the Internet at address  
<http://iree.gsfc.nasa.gov/dtts/> (directly) or from the ESDIS Integration and Test home page at <http://esdis.gsfc.nasa.gov/integ/integ.html>.

| <b>DR Number</b> | <b>Rel IDR</b> | <b>System</b> | <b>Stat</b> | <b>Sev</b> | <b>Description</b>  |
|------------------|----------------|---------------|-------------|------------|---|
| SMODr00055       |                | MPS           | C           | 2          | Spacecraft Buffer Not Dumped In Telemetry                 |
| SMODr00056       |                | MPS           | C           | 2          | No Memory Was Dumped In Telemetry                         |
| SMODr00062       |                | MPS           | C           | 3          | MPS Does Not Format Diagnostic (1 kb and 16 kb) telemetry |
| SMODr00125       |                | MPS           | C           | 3          | Playback Only Transmits On One Channel                    |
| SMODr00126       |                | MPS           | C           | 2          | More information required                                 |
| SMODr00128       |                | MPS           | C           | 2          | Abs/Relative cmd time sequence not tested                 |
| SMODr00134       |                | MPS           | C           | 3          | Unreadable Message Displayed                              |
| SMODr00172       |                | MPS           | C           | 3          | Standby TLM Sim Unsupported                               |
| SMODr00253       |                | MPS           | C           | 2          | 3 Bit Discrete TLM Parameters Not Handled Correctly       |
| SMODr00262       |                | MPS           | C           | 2          | EDOS header does not match ICD                            |
| SMODr00270       |                | MPS           | C           | 2          | Delog of CODAs cause core dump                            |
| SMODr00274       |                | MPS           | C           | 2          | Errors in SCS summary                                     |
| SMODr00276       |                | MPS           | C           | 3          | Can not tlm point by location                             |
| SMODr00277       |                | MPS           | C           | 2          | Setting tlm to Standby caused core dump                   |
| SMODr00279       |                | MPS           | C           | 3          | User's Guide needs updates                                |
| SMODr00280       |                | MPS           | C           | 2          | Discrepancy between hex dump and reports                  |

DR SMOdr00055      Related NCR #: n/a      Submitted: 961119  
Status: CLOSE      System: ETS

Closed: 970605

TITLE: "Spacecraft Buffer Were Not Dumped In Telemetry"

\*\*\*\*\* Problem (for SMOdr00055) \*\*\*\*\*

Set first 14 bytes of spacecraft buffer to "00". I then sent [CDH\_DUMP\_CT2\_SABSADR, CDH\_DUMP\_CT2\_RABSADR, & CDH\_DUMP\_CT2\_RABSA DR CMDS] (dump initiate) I then sent [GET\_CT2\_DMPGAT] (dump gather) to the MPS=> analyzing tlm log => settings to spacecraft buffer were not dumped in telemetry.

DR SMOdr00056      Related NCR #: n/a      Submitted: 961119

Status: CLOSE      System: ETS

Closed: 970605

TITLE: "No Memory Was Dumped In Telemetry"

\*\*\*\*\* Problem (for SMOdr00056) \*\*\*\*\*

Sent CMD: CDH\_MLOAD\_CTZ\_ABADIN to initiate memory load (word count = 2). Then sent 2 commands to load: [ofC\_sdp2.gen & onC\_sdp2.gen]. The cmds appeared to load (debug) => Turned on diag 1K tlm here. Then sent [CDH\_SUMP\_CT2\_SABSADR, CDH\_DUMP\_CT2\_PABSADR, & CDH\_DUMP\_CT2\_RABSADR] commands to MPS. Next sent [GET\_CT2\_DMPGAT] cmd to MPS => analyzing tlm log => no memory was dumped in telemetry.

DR SMOdr00062      Related NCR #: n/a      Submitted: 961119

Status: CLOSE      System: ETS

Closed: 970605

TITLE: "MPS Does Not Format Diagnostic (1 kb and 16 kb) telemetry"

\*\*\*\*\* Problem (for SMOdr00062) \*\*\*\*\*

The MPS does not format diagnostic (1 kb and 16 kb) telemetry correctly. According to Section 6.1.1.5 of ICD-106, if there is no memory dump data in the application data portion of the packet, there should be a 1 byte RT address field set to 31 and a 2 byte word count field set to 0. If there is memory dump data in the packet, the 1 byte RT address field should be set and the word count field should be set appropriately. Currently there is fill data in the entire application data portion of the diagnostic packet.

DR SMOdr00125      Related NCR #: n/a      Submitted: 961127

Status: CLOSE      System: ETS

Closed: 970605

TITLE: "Playback Only Transmits On One Channel"

\*\*\*\*\* Problem (for SMOdr00125) \*\*\*\*\*

Currently, simulate playback data functionality is similar to external H/K file functionality => MPS reads file and sends out data in EDOS mode on channel 2. Should playback data also be transmitted in S/C sim mode? If so, the MPS currently does not do this.

DR SMOdr00126      Related NCR #: n/a      Submitted: 961127  
Status: CLOSE      System: ETS  
                        Closed: 970605

TITLE: "More information required"

\*\*\*\*\* Problem (for SMOdr00126) \*\*\*\*\*

CRC validation of table loads not tested due to lack of information - see requirement compliance matrix.

DR SMOdr00128      Related NCR #: n/a      Submitted: 961127  
Status: CLOSE      System: ETS  
                        Closed: 970605

TITLE: "Abs/Relative cmd time sequence not tested"

\*\*\*\*\* Problem (for SMOdr00128) \*\*\*\*\*

Absolute time commands/relative time sequences - unable to test. => ATC's & RTS's need to be loaded into memory through memory table load -> commands which load ATC's & RTS's are unknown <- (spoke with developer).

DR SMOdr00134      Related NCR #:      Submitted: 961127  
Status: CLOSE      System: ETS  
                        Closed: 970519

TITLE: "Unreadable Message Displayed"

\*\*\*\*\* Problem (for SMOdr00134) \*\*\*\*\*

Event log - after loading scenario five, an unreadable message is displayed in the session log window.

DR SMOdr00172      Related NCR #: n/a      Submitted: 961219  
Status: CLOSE      System: ETS  
                        Closed: 970529

TITLE: "Standby TLM Sim Unsupported"

\*\*\*\*\* Problem (for SMOdr00172) \*\*\*\*\*

MPS Release 1.0 does not simulate standby telemetry format. The user is not given this format as an option in the Packet Format in the MPS Configuration display, however, the user is permitted to override Standby packet contents using the Tlm Packet menu option in the MPS Configure menu.

DR SMOdr00253      Related NCR #: n/a      Submitted: 970326

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "3 Bit Discrete TLM Parameters Not Handled Correctly"

\*\*\*\*\* Problem (for SMOdr00253) \*\*\*\*\*

ETS Release 1 + Patch (NRZ-L to -M and End-item Verifier) Integer values (0-7) were assigned to 3 bit discrete TLM parameters, CDH\_SR\_ACT\_CLCW\_STAT and CDH\_CR\_ACT\_DAT\_CH1. CDH\_CR\_ACT\_DAT\_CH1 was assigned the values 0, 1, 2, 3, 5, and 0. CDH\_SR\_ACT\_CLCW\_STAT was assigned the values 0 through 7. The values in the analysis results for CDH\_SR\_ACT\_CLCW\_STAT are the assigned values 0, 2, 4 and 6 with the value 3 interjected between each assigned value. The values in the analysis results for CDH\_CR\_ACT\_DAT\_CH1 are the assigned value 0 and the value 7 alternating. The values of these discrete parameters that are in the analysis results agree with the discrete text seen on the TLM dynamic page at the EOC; however, they do not agree with the values supposedly assigned by the ETS MPS scenario script.

DR SMOdr00262      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "EDOS header does not match ICD"

\*\*\*\*\* Problem (for SMOdr00262) \*\*\*\*\*

Examined a dump of the SCS report, compared it to the ICD, and found the following discrepancies: the EDOS ground header is missing data for source and destination, date and time message generation, mission spacecraft ID, and message sequence fields.

DR SMOdr00270      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "Delog of CODAs cause core dump"

\*\*\*\*\* Problem (for SMOdr00270) \*\*\*\*\*

The delogs of CODA Reports are being created and stored in the OMD\_delog file as expected, but core dumps are generated sometimes when a delog is requested. Some extraneous info at the end of the delog report may be causing the dumps.

DR SMOdr00274      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "Errors in SCS summary"

\*\*\*\*\* Problem (for SMOdr00274) \*\*\*\*\*

Found the following discrepancies in the SCS summary report: time field is zero for items 4-1.4, 4-1.6, and 4-1.9 (Table 5.2.2-1) ICD in the second return link physical port (RLPP). Also found that the data being put in the time

fields is inconsistent between SCS reports.

DR SMOdr00276      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970529

TITLE: "Can not tlm point by location"

\*\*\*\*\* Problem (for SMOdr00276) \*\*\*\*\*

Setting telemetry point by location does not appear to be functioning correctly for bit length. Telemetry mnemonic COM\_CR\_SBT1\_Q\_PIN CODE was set correctly -> 0000. Set by location was -> 0100 0000.

DR SMOdr00277      Related NCR #: ETS0365      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970606

TITLE: "Setting tlm to Standby caused core dump"

\*\*\*\*\* Problem (for SMOdr00277) \*\*\*\*\*

Set telemetry to standby -> received message 'Standby not supported - default to H/K' -> started and stopped telemetry -> reset to standby and started telemetry => received system core dump. Had to reboot the system.

DR SMOdr00279      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "User's Guide needs updates"

\*\*\*\*\* Problem (for SMOdr00279) \*\*\*\*\*

Update User's Guide to reflect changes in the MPS Release 1.1.0 delivery. (i.e. add new function to copy telemetry and rate buffered files, remove print option, name of telemetry and command log files).

DR SMOdr00280      Related NCR #: n/a      Submitted: 970402

Status: CLOSE      System: ETS

Closed: 970519

TITLE: "Discrepancy between hex dump and reports"

\*\*\*\*\* Problem (for SMOdr00280) \*\*\*\*\*

Found the following discrepancies between a hex dump of a CODA report and the ICD: There are 20 bytes of zeros after the final field identified in the ICD and item 16-1.3 of ICD Table 5.2.1-1 appears to be missing for each VCID (2 bytes=0).

## **Attachment F - Unresolved Discrepancy Reports (DRs)**

All the Internal Discrepancy Reports (IDRs) for the ETS - MPS have been converted to DRs. The DRs were entered in the ESDIS Discrepancy Report Tracking Tool (DRTT). The DRs are listed by: Number, System/Subsystem name, Status, Severity, and Description. Additionally, two DRs that failed MPS Release 1.2.0 test verification are also listed. The DRs can be accessed via the Internet at address <http://iree.gsfc.nasa.gov/dtts/> (directly) or from the ESDIS Integration and Test home page at <http://esdis.gsfc.nasa.gov/integ/integ.html>. A full detail of each DR follows appended this table.

## **Summary of Open Discrepancy Reports**

| <b>Release</b> | <b>Critical(1)</b> | <b>Urgent(2)</b> | <b>Routine(3)</b> | <b>Totals</b> |
|----------------|--------------------|------------------|-------------------|---------------|
| Prior Releases | 1                  | 22               | 22                | 45            |
| New in 1.2.0   | 0                  | 0                | 6                 | 6             |
| <b>Totals</b>  | <b>1</b>           | <b>22</b>        | <b>28</b>         | <b>51</b>     |

## Status Definitions

**N - New**      **A - Assigned Analysis**      **R - Assigned Resolution**

D - Delivered                  V - Verified                  C - Closed

W - Withdrawn      P - Postponed      X - Duplicate

## Severity Definitions

1 = Critical                  2 = Urgent                  3 = Routine

| <b>DR Number</b> | <b>Rel IDR</b> | <b>System</b> | <b>Stat</b> | <b>Sev</b> | <b>Description</b>                             |
|------------------|----------------|---------------|-------------|------------|--|
| SMOdr00355       | 12434          | MPS           | N           | 3          | Incorrect count on command load                |
| SMOdr00356       | 12441          | MPS           | N           | 3          | Incorrect command executed                     |
| SMOdr00357       | ETS0459        | MPS           | N           | 3          | Incorrect data indication                      |
| SMOdr00358       | ETS0460        | MPS           | N           | 3          | Error having HK and PDB file on simultaneously |
| SMOdr00359       | ETS0461        | MPS           | N           | 3          | User was able to reset TLM while data on       |
| SMOdr00360       | ETS0462        | MPS           | N           | 3          | Invalid data indicator                         |

| <b>DR Number</b> | <b>Rel IDR</b> | <b>System</b> | <b>Stat</b> | <b>Sev</b> | <b>Description</b>                            |
|------------------|----------------|---------------|-------------|------------|---|
| SMOdr00261       | ETS0332        | MPS           | A           | 3          | Expected frame sequence # did not update      |
| SMOdr00263       | ETS0334        | MPS           | A           | 3          | Wrong value displayed for CMD header          |
| SMOdr00264       | ETS0337        | MPS           | A           | 2          | Closing Comm Link Causes Error Message        |
| SMOdr00265       | ETS0338        | MPS           | A           | 2          | VCDU Counts Are Misinterpreted                |
| SMOdr00266       | ETS0339        | MPS           | A           | 2          | Wrong APID for 1K diag & stdby tlm            |
| SMOdr00267       | ETS0340        | MPS           | A           | 2          | Cannot enter 0 for VCID value                 |
| SMOdr00268       | ETS0341        | MPS           | A           | 3          | Misspelled Word In ABOUT Message              |
| SMOdr00269       | ETS0342        | MPS           | A           | 2          | Incorrect log function display                |
| SMOdr00271       | ETS0350        | MPS           | A           | 3          | Command Error Counter Increment by 2          |
| SMOdr00272       | ETS0358        | MPS           | A           | 2          | Rate buffer name does not match ICD           |
| SMOdr00273       | ETS0359        | MPS           | A           | 2          | VCDU chnnl 1 display stopped refreshing       |
| SMOdr00275       | ETS0361        | MPS           | A           | 2          | Rate buffer file not created                  |
| SMOdr00278       | ETS0366        | MPS           | A           | 3          | Incorrect message when config tlm packet parm |
| SMOdr00281       | ETS0383        | MPS           | A           | 3          | Reselecting Window Clears Data                |
| SMOdr00282       | ETS0384        | MPS           | A           | 2          | Intermittent problem with dropping EDUs       |
| SMOdr00283       | ETS0385        | MPS           | A           | 3          | Path directory truncated                      |
| SMOdr00284       | ETS0387        | MPS           | A           | 2          | EDOS header incorrect                         |
| SMOdr00285       | ETS0388        | MPS           | A           | 3          | Starting telemetry is unsetting the GN mode   |
| SMOdr00286       | ETS0389        | MPS           | A           | 3          | Data isn't being transmitted on channel 2     |
| SMOdr00052       |                | MPS           | R           | 2          | ETS Laptop Lockup                             |
| SMOdr00058       |                | MPS           | R           | 2          | No Error Msgs In The Status Log               |
| SMOdr00059       |                | MPS           | R           | 2          | Incorrect Command Increment                   |
| SMOdr00061       |                | MPS           | R           | 2          | No Rate Buffered Transmission Capability      |
| SMOdr00064       |                | MPS           | R           | 3          | S/C Time Not Updated By Command               |
| SMOdr00077       |                | MPS           | R           | 2          | Hard Coded External Interfaces                |
| SMOdr00082       |                | MPS           | R           | 3          | Compile Error                                 |
| SMOdr00084       |                | MPS           | R           | 2          | Undelivered Requirement                       |
| SMOdr00098       |                | MPS           | R           | 2          | CLCW Transmission Error                       |
| SMOdr00107       |                | MPS           | R           | 3          | CLCW Count Does Not Match VCDU Count          |
| SMOdr00111       |                | MPS           | R           | 2          | Modeling Function Failure                     |
| SMOdr00120       |                | MPS           | R           | 2          | MPS rejected the command having an error      |
| SMOdr00129       |                | MPS           | R           | 3          | EDOS service header in error                  |

| <b>DR Number</b> | <b>Rel IDR</b> | <b>System</b> | <b>Stat</b> | <b>Sev</b> | <b>Description</b>                                 |
|------------------|----------------|---------------|-------------|------------|--|
| SMOdr00148       |                | MPS           | R           | 3          | Source files with wrong identifier                 |
| SMOdr00150       |                | MPS           | R           | 3          | Coda Report only display 2 channels                |
| SMOdr00151       |                | MPS           | R           | 3          | Coda Reports only 8 VCIDs                          |
| SMOdr00155       |                | MPS           | R           | 3          | Can not set time in NASCOM header                  |
| SMOdr00156       |                | MPS           | R           | 3          | Block error control bit not set in NASCOM block    |
| SMOdr00159       |                | MPS           | R           | 3          | Coda Reports report wrong number of VCDU           |
| SMOdr00168       |                | MPS           | R           | 1          | Multicasting Not Supported                         |
| SMOdr00169       |                | MPS           | R           | 2          | Multi-UDP Port #s Not Supported                    |
| SMOdr00170       |                | MPS           | R           | 3          | Signal Files Not Supported                         |
| SMOdr00171       |                | MPS           | R           | 3          | User S/C CMD Entry Unsupported                     |
| SMOdr00201       |                | MPS           | R           | 3          | MPS Exec Inaccessible From Menu Controller         |
| SMOdr00132       |                | MPS           | V           | 2          | Scenario Execution and Starting tlm - System Crash |
| SMOdr00139       |                | MPS           | V           | 2          | Incorrect Flag Bit Setting                         |

TITLE: "Incorrect count on command load"

\*\*\*\*\* Problem (for SMOdr00355) \*\*\*\*\*

Sent a load initiate command (pseudo-ops) with word count -> 56. Sent two loads with word count 32 and 26, respectively The second load data command (which has an incorrect count- should be 24 words) was sent but memory load data does not complete processing. The memory loading process should stop once the word count = 56.

DR SMOdr00356      Related NCR #: 00012441      Submitted: 970605

Status: NEW      System: ETS

TITLE: "Incorrect command executed"

\*\*\*\*\* Problem (for SMOdr00356) \*\*\*\*\*

Set the jump pseudo-op in the ATC to execute the 4th command but it incorrectly executed the 5th command. The jump reference

number (offset) is being calculated incorrectly (off by one)

DR SMOdr00357      Related NCR #: ETS0459      Submitted: 970605

Status: NEW      System: ETS

TITLE: "Incorrect data indication"

\*\*\*\*\* Problem (for SMOdr00357) \*\*\*\*\*

After completing the first playback transmission successfully, the user tried to initiate a second transmission but the playback data was not sent. Although, the data source indicator was set to HK file, the user had to reset the indicator to start another transmission. The user should not have to toggle the indicator for subsequent transmission

DR SMOdr00358      Related NCR #: ETS0460      Submitted: 970605

Status: NEW      System: ETS

TITLE: "Error having HK and PDB file on simultaneously"

\*\*\*\*\* Problem (for SMOdr00358) \*\*\*\*\*

Having the data source indicator set to 'on' for HK file and PDB at the same time is an error. The user was able to set both indicators to \"ON\" by setting the HK file -> hk\_pd.dat on the MPS main menu following bt opening a configuration file (with the data source set to PDB). MPS set the PDB indicator \"ON\" but did not unset the HK file indicator.

DR SMOdr00359      Related NCR #: ETS0461      Submitted: 970605

Status: NEW      System: ETS

TITLE: "User was able to reset TLM while data on"

\*\*\*\*\* Problem (for SMOdr00359) \*\*\*\*\*

Entered "U\_setreplay" in the user command box while data from the HK file is being transmitted. After clicking ok, the user receive several messages indicating the data source HK file has been reset to "U\_setreplay\_on". The user should not be allowed to reset the data source while transmission is in progress. Also the user command should not overwrite the HK file name. Entering data in the user command box should not interfere with the data source setting. Old data that was entered in the user command line option is displayed in the HK files field under data source in the S/C mode. Impact: minimal - user must delete old data before entering the file name. Receive the same response message multiple times in the event log when the user selects the option to set data source to HK file in the spacecraft mode.

DR SMOdr00360      Related NCR #: ETS0462      Submitted: 970606

Status: NEW      System: ETS

TITLE: "Invalid data indicator"

\*\*\*\*\* Problem (for SMOdr00360) \*\*\*\*\*

The valid data indicator bit is not set to 1 (valid data) in the diagnostic data packet per ICD 106, section 6.1.1.5, e. Data format does not conform with ICD.

DR SMOdr00261      Related NCR #: ETS0332      Submitted: 970402

Status: ASSIGNED-ANALYSIS      System: ETS      Assigned-Anal: 970424

TITLE: "Expected frame sequence # did not update"

\*\*\*\*\* Problem (for SMOdr00261) \*\*\*\*\*

Sent control command to modify the next expected frame sequence no. (V(R))and make it = 64. The command counter, CLCW, and FARM-B counter updated correctly, but the next expected frame sequence no. (NEFC) remained=0 on the command status display.

DR SMOdr00263      Related NCR #: ETS0334      Submitted: 970402

Status: ASSIGNED-ANALYSIS      System: ETS      Assigned-Anal: 970424

TITLE: "Wrong value displayed for CMD header"

\*\*\*\*\* Problem (for SMOdr00263) \*\*\*\*\*

The wrong value is displayed for the command block header parameter in the session log in the main window. The command block header parameter is configured to 'off' (value should be 0) state but a value of one is displayed in the session log. The correct values (0) are displayed in the session log when the other parameters in the command validation window are configured to the 'off' state.

DR SMOdr00264      Related NCR #: ETS0337      Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Closing Comm Link Causes Error Message"

\*\*\*\*\* Problem (for SMOdr00264) \*\*\*\*\*

When closing the communication link in OMDSIM the following message 'muc\_socket: error reading socket-unable to read socket for OMDSIM' is always sent to the session log. Impact to OMDSIM processing is unknown at this time, but the message appears to be reporting an error.

DR SMOdr00265 Related NCR #: ETS0338 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "VCDU Counts Are Misinterpreted"

\*\*\*\*\* Problem (for SMOdr00265) \*\*\*\*\*

Several parameters in the CODA report display (for example - count of frame sync pattern errors, count of CADUs received, count of flywheel CADUs, count of out of sequence messages, count of VCDU sequence counter discontinuities) are incorrectly defined as signed integers 4 bytes. The correct format and size as defined in the ICD is unsigned integers 4 bytes. Attempts to enter the maximum value for some parameters are being incorrectly interpreted on the display.

DR SMOdr00266 Related NCR #: ETS0339 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Wrong APID for 1K diag & stndby tlm"

\*\*\*\*\* Problem (for SMOdr00266) \*\*\*\*\*

The wrong APIDs for 1K diagnostic and standby telemetry are being displayed in the data type field in the telemetry status window, i.e., 1K diagnostic would be 6 vice 3 and standby would be 5 vice 1.

DR SMOdr00267 Related NCR #: ETS0340 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Cannot enter 0 for VCID value"

\*\*\*\*\* Problem (for SMOdr00267) \*\*\*\*\*

Tried to enter a zero in the VCID field on the return link physical channel panel of the CODA report but received a message indicating the value was invalid. The valid range for the VCID is 0-8.

DR SMOdr00268 Related NCR #: ETS0340 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Misspelled Word In ABOUT Message"

\*\*\*\*\* Problem (for SMOdr00268) \*\*\*\*\*

The word 'low rate' is misspelled on About MPS display under the HELP option. Also, the word 'and' in the sentence 'MPS and verifies command ...' is out of context. Remove word 'and'.

DR SMOdr00269 Related NCR #: ETS0342 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Incorrect log function display"

\*\*\*\*\* Problem (for SMOdr00269) \*\*\*\*\*

The telemetry logging function is displaying messages with channel 3 (both) instead of reporting channel 1 and channel 2.

DR SMOdr00271 Related NCR #: ETS0350 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Command Error Counter Increment by 2"

\*\*\*\*\* Problem (for SMOdr00271) \*\*\*\*\*

The command errors counter increment by two on the command status display when receiving invalid commands with an incorrect length. The following messages were received in the MPS log 'Invalid CLTU received - incorrect length' and 'no sync in command.'

DR SMOdr00272 Related NCR #: ETS0358 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "Rate buffer name does not match ICD"

\*\*\*\*\* Problem (for SMOdr00272) \*\*\*\*\*

The rate buffer data file name doesn't match the ICD. The time field and unique file number field have leading blanks instead of zeros (i.e., R042000+071144523+01.rbd) also; rbd should be all caps.

DR SMOdr00273 Related NCR #: ETS0359 Submitted: 970402

Status: ASSIGNED-ANALYSIS System: ETS Assigned-Anal: 970424

TITLE: "VCDU chnnl 1 display stopped refreshing"

\*\*\*\*\* Problem (for SMOdr00273) \*\*\*\*\*

The monitor VCDU channel 1 display stopped refreshing every 5 seconds at least two times while transmitting housekeeping telemetry at 256K on both channels. First occurrence -> stopped refreshing for approx. 5 minutes; second occurrence -> approx. 10 minutes. After each occurrence the display would return to refreshing every 5 seconds.

DR SMOdr00275      Related NCR #: ETS0361      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Rate buffer file not created"

\*\*\*\*\* Problem (for SMOdr00275) \*\*\*\*\*

When dropping EDUs on both channels, channel 1 - 18 EDUs and channel 2 = 28 EDUs, the rate buffer file for channel 2 is not being created -> receive msg 'cannot open channel 2 rate buffer disk file'. Ran test without dropping EDUs and the RBD files were created for both channels. Telemetry data rate -> 256K H/K.

DR SMOdr00278      Related NCR #: ETS0366      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Incorrect message when config tlm packet parm"

\*\*\*\*\* Problem (for SMOdr00278) \*\*\*\*\*

Receive two messages when configuring the telemetry packet by parameter. The first message is correct and reports the parameter's setting. The second message 'Telemetry mode not found' provides no additional info and appears to be misleading.

DR SMOdr00281      Related NCR #: ETS0383      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Reselecting Window Clears Data"

\*\*\*\*\* Problem (for SMOdr00281) \*\*\*\*\*

Reselecting the monitor command window when it was already up caused the command data in the display to be cleared out. Suggestion -> desensitizes option or brings window to foreground and save the data in the display.

DR SMOdr00282      Related NCR #: ETS0384      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Intermittent problem with dropping EDUs"

\*\*\*\*\* Problem (for SMOdr00282) \*\*\*\*\*

Intermittent problem with dropping EDUs. Ran three test to drop EDUs simultaneously on each channel. Analysis of rate buffer file showed that one channel (I) did not drop EDUs while the remaining I and Q channels dropped the correct number of EDUs.

DR SMOdr00283      Related NCR #: ETS0385      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Path directory truncated"

\*\*\*\*\* Problem (for SMOdr00283) \*\*\*\*\*

The scenario file name window is not large enough to show complete path directory and file name and user cannot scroll in the window to see the file name.

DR SMOdr00284      Related NCR #: ETS0387      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "EDOS header incorrect"

\*\*\*\*\* Problem (for SMOdr00284) \*\*\*\*\*

The source sequence counter discontinuity field (item 10, table 5.1.3.1, ICD) is not set in the EDOS service header after EDUs are dropped on both channels.

DR SMOdr00285      Related NCR #: ETS0388      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Starting telemetry is unsetting the GN mode"

\*\*\*\*\* Problem (for SMOdr00285) \*\*\*\*\*

Configured command for GN and started telemetry (both channels). Sent command and received message -> 'no sync in command.' Stop tlm on both channels and resent command -> received message 'no sync in command.' Reconfigured command for GN and resent command -> received message 'command AST\_TURN\_OFF\_C\_SD received.' Start telemetry on both channels and sent command -> received message 'no sync in command.' It appears that starting telemetry is unsetting the command configuration for the GN mode.

DR SMOdr00286      Related NCR #: ETS0389      Submitted: 970402  
Status: ASSIGNED-ANALYSIS    System: ETS      Assigned-Anal: 970424

TITLE: "Data isn't being transmitted on channel 2"

\*\*\*\*\* Problem (for SMOdr00286) \*\*\*\*\*

Intermittent problem (occurred twice) when starting telemetry on both channels but data isn't being transmitted on channel 2 -> received message to indicate telemetry had started on both channels. This problem occurred on 3/25 and

4/1. Workaround - stopped and restarted telemetry on channel 2. Attempted to reproduce problem by starting and stopping telemetry numerous times but was unsuccessful.

DR SMOdr00052      Related NCR #:      Submitted: 961114  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "ETS Laptop Lockup"

\*\*\*\*\* Problem (for SMOdr00052) \*\*\*\*\*

Attempted to access M187 board through MPS 1 laptop. When EXCEED was brought up, the laptop locked up. Powered off the laptop and attempted to restart EXCEED the laptop locked again.

DR SMOdr00058      Related NCR #:      Submitted: 961119  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "No Error Msgs In The Status Log"

\*\*\*\*\* Problem (for SMOdr00058) \*\*\*\*\*

Sent Command (In EDOS Mode) to MPS. I had previously configured EDOS ground Msg Header Validation expected values as follows: Source: 0, Dest: 0, S/C ID: 0 Msg type: 0, and Seq No.: 0. The command I sent had EDOS Ground Msg Header values set as follows: Source: 04 (hex), Dest: 01 (hex), S/C ID: 00A9 (hex), Msg Type: 03 (hex), and Seq. No.:0. The MPS should have placed error msgs in the status log indicating that sent values did not match the expected values - it did not.

DR SMOdr00059      Related NCR #:      Submitted: 961119  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "Incorrect Command Increment"

\*\*\*\*\* Problem (for SMOdr00059) \*\*\*\*\*

Sent a cmd [EDOS Mode] data block which continued on EDOS ground msg header & 2 CLTUs -> 1 (AST\_Turn\_Off\_C\_SDP) & 2 (AST\_Turn\_off\_C\_SDP). The MPS acted like it received only one command => "Command AST\_Turn\_Off\_C\_SDP Received" => Command counter on CMD status window incremented to 1.

DR SMOdr00061      Related NCR #:      Submitted: 961119  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "No Rate Buffered Transmission Capability"

\*\*\*\*\* Problem (for SMOdr00061) \*\*\*\*\*

The MPS does not provide the capability to transmit rate buffered files via KFTP to an external entity, either manually or automatically.

DR SMOdr00064      Related NCR #:      Submitted: 961119  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

**TITLE: "S/C Time Not Updated By Command"**

\*\*\*\*\* Problem (for SMOdr00064) \*\*\*\*\*

Sent command "CDH\_SET\_ST1\_CLK" to MPS. The format was as follows: "eb90 0009001800C4 1000C0000000 ob08250701e8 000000000fe 0000008EA3d6 555555555555" in hex. The result of this command should have been that S/C time updated in tlm to 0 days, 0 msec, & 0 usec. However, when this command was sent => the S/C time did not update in the tlm nor on the MPS main window. [Note: There are more cmds in pdb which set/adjust S/C time<= these were not attempted<= assumed these are not working also.]

DR SMOdr00077      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

**TITLE: "Hard Coded External Interfaces"**

\*\*\*\*\* Problem (for SMOdr00077) \*\*\*\*\*

MPS S/C Sim S/W requires recompile if addresses of external interfaces change.

DR SMOdr00082      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

**TITLE: "Compile Error"**

\*\*\*\*\* Problem (for SMOdr00082) \*\*\*\*\*

Building MPS gui =) received warning in ipc directory =). "In function "xxx\_ipc\_select" (incompatible pointer type).

DR SMOdr00084      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

**TITLE: "Undelivered Requirement"**

\*\*\*\*\* Problem (for SMOdr00084) \*\*\*\*\*

Attempted to test using activity log as data source => MPS compliance matrix indicated that this requirement was not delivered due to lack of information from outside sources.

DR SMOdr00098      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "CLCW Transmission Error"

\*\*\*\*\* Problem (for SMOdr00098) \*\*\*\*\*

Current implementation of CLCW transmission in EDOS mode does not appear to be correct. ICD (EDOS-EGS) indicates CLCW should be transmitted on a separate port & simultaneously with the EDUS => this does not occur.

DR SMOdr00107      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "CLCW Count Does Not Match VCDU Count"

\*\*\*\*\* Problem (for SMOdr00107) \*\*\*\*\*

TLM status window contains field titled "CLCW count" -> since H/K, Diag & H&S tlm all contain CLCW => the CLCW count should match the VCDU count when Diag., H&S, & H/K tlm are being transmitted in S/C Sim mode.

DR SMOdr00111      Related NCR #:      Submitted: 961120  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "Modeling Function Failure"

\*\*\*\*\* Problem (for SMOdr00111) \*\*\*\*\*

Testing modeling functionality - attempted to model mnemonic which had a static value for its first 2100 secs => tlm values were not static. Attempted to model mnemonic which was decreasing in its first 2100 secs => tlm values were increasing to 255 then started over again = attempted to override modeling type => set as static => tlm values continued as if modeling type had not been overridden.

DR SMOdr00120      Related NCR #:      Submitted: 961127  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "MPS rejected the command having an error"

\*\*\*\*\* Problem (for SMOdr00120) \*\*\*\*\*

Set expected header values as follows for commanding in GN mode => source=0, dest=1, dsid=2, & Mtyp=9. Using CTEST we sent [DBIB] command block to MPS=> 2nd block HDR= "01002A02" (hex) 3rd block HDR= "09000000" (hex). The MPS rejected the command for having an error in its command block header

DR SMOdr00129      Related NCR #:      Submitted: 961127  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "EDOS service header in error"

\*\*\*\*\* Problem (for SMOdr00129) \*\*\*\*\*

Rate buffered data should have the playback EDOS service header flag set - the EDUs in the rate buffered file should be playback, not real-time data.

DR SMOdr00148

Related NCR #:

Submitted: 961127

Status: ASSIGNED-RESOLUTION System: ETS

Assigned-Res: 970226

TITLE: "Source files with wrong identifier"

\*\*\*\*\* Problem (for SMOdr00148) \*\*\*\*\*

sc\_main.c and a number of other source files contained XTTS headers. Headers and comments in all source files need to be updated for MPS.

DR SMOdr00150

Related NCR #:

Submitted: 961202

Status: ASSIGNED-RESOLUTION System: ETS

Assigned-Res: 970226

TITLE: "Coda Report only display 2 channels"

\*\*\*\*\* Problem (for SMOdr00150) \*\*\*\*\*

Generating input for a Coda Report - Return link physical channel ICD range 0 -> 24 - current display is 0 -> 2.

DR SMOdr00151

Related NCR #:

Submitted: 961202

Status: ASSIGNED-RESOLUTION System: ETS

Assigned-Res: 970226

TITLE: "Coda Reports only 8 VCIDs"

\*\*\*\*\* Problem (for SMOdr00151) \*\*\*\*\*

Coda Report generator input values for "number of VCIDs" = Range 0 to 8 - ICD 0 to 255.

DR SMOdr00155

Related NCR #:

Submitted: 961202

Status: ASSIGNED-RESOLUTION System: ETS

Assigned-Res: 970226

TITLE: "Can not set time in NASCOM header"

\*\*\*\*\* Problem (for SMOdr00155) \*\*\*\*\*

According to J.Alger-> GMT time in NASCOM block header can be set by operator [set UTC time] function of MPS.  
=> We set the UTC time to yrs: 96, day: 1, hr: 1, & min: 1. We then began transmitting WGS formatted BLOCK telemetry - we analyzed the tlm logged by RCVBCK SOC test tool => the transmitted time did not match the time we had set through the MPS interface.

DR SMOdr00156      Related NCR #:      Submitted: 961202  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "Block error control bit not set in NASCOM block"

\*\*\*\*\* Problem (for SMOdr00156) \*\*\*\*\*

The NASCOM blocks transmitted from the MPS (WGS-mode) do not appear to contain the block error control bits at the end of the block.

DR SMOdr00159      Related NCR #:      Submitted: 961205  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "Coda Reports report wrong number of VCDU"

\*\*\*\*\* Problem (for SMOdr00159) \*\*\*\*\*

Coda Report generation CCSDS VCDU processing number of VCIDs ICD value 0 - 255 range for this system 0 - 8.

DR SMOdr00168      Related NCR #:      Submitted: 961219  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970225

TITLE: "Multicasting Not Supported"

\*\*\*\*\* Problem (for SMOdr00168) \*\*\*\*\*

MPS Release 1.0 does not support multicasting (m/c). EDOS-EOC interface requires bi-directional multicasting: EDOS receives command data blocks (CDB) and transmits EDUs and CODAs.

DR SMOdr00169      Related NCR #:      Submitted: 961219  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "Multi-UDP Port #s Not Supported"

\*\*\*\*\* Problem (for SMOdr00169) \*\*\*\*\*

MPS Release 1.0 does not support multiple, unique UDP port numbers. Up to 16 ports are needed for real time EDUs, 4 for CLCW EDUs, 2 for CODAs, and 2 for CDBs.

DR SMOdr00170      Related NCR #:      Submitted: 961219  
Status: ASSIGNED-RESOLUTION   System: ETS      Assigned-Res: 970226

TITLE: "Signal Files Not Supported"

\*\*\*\*\* Problem (for SMOdr00170) \*\*\*\*\*

MPS Release 1.0 does not transmit signal files along with RB and SCS file transfers.

DR SMOdr00171      Related NCR #:      Submitted: 961219  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "User S/C CMD Entry Unsupported"

\*\*\*\*\* Problem (for SMOdr00171) \*\*\*\*\*

MPS Release 1.0 does not provide the operator with a real-time capability to enter spacecraft commands.

DR SMOdr00201      Related NCR #:      Submitted: 970122  
Status: ASSIGNED-RESOLUTION    System: ETS      Assigned-Res: 970226

TITLE: "MPS Exec Inaccessible From Menu Controller"

\*\*\*\*\* Problem (for SMOdr00201) \*\*\*\*\*

ETS Release 1 + Patch (NRZ-M and End-item Verifier)The MPS main window is not accessible from the ETS MPS Menu Controller. The instructions in the MPS User Guide starting around Section 2.1.5.2 were followed. Answered "Yes" to the questions dealing with the termination of the MPS Exec application. Closed the ETS MPS Menu Controller as instructed and answered "Yes" to the termination of the application started by the menu controller and to the continuation of the shutdown. Upon selecting the MPS Exec button on the ETS MPS Menu Controller again, it was discovered that the problem still existed and the same series of question dialogs appeared. The MPS main window never appeared. Workaround (provided by developer): Invoke the MPS Exec directly via the executable called "mps" in background (e.g., "mps &"). The MPS main window appeared.

DR SMOdr00132      Related NCR #:      Submitted: 961127  
Status: VERIFIED      System: ETS      Verified: 970408

TITLE: "Scenario Execution and Starting tlm - System Crash"

\*\*\*\*\* Problem (for SMOdr00132) \*\*\*\*\*

Start tlm after first starting execution of a scenario file, stop tlm. Auto stop of the scenario file - load another, scenario file - start it. Start tlm and the system will crash. Core dump on /HOME/STEST/BUILD6/BIN/CORE.

DR SMOdr00139      Related NCR #:      Submitted: 961127  
Status: VERIFIED      System: ETS      Verified: 970331

TITLE: "Incorrect Flag Bit Setting"

\*\*\*\*\* Problem (for SMOdr00139) \*\*\*\*\*

[OMDSIM} - edited Coda file - set flag bit in ground message header - saved file - exited OMDSIM (brought OMDSIM down completely) - brought OMDSIM back up - retrieved saved Coda file-> flag bit was shown as being unset.

## Attachment G - List of System Requirements

In MPS Release 1.2.0, the implementation of each level 4 requirement (i.e., full, partial, or non-implementation) remains the same as MPS Release 1.0, except for the following changes as noted in italics in the table below.

| <b>Level 4 Req. Spec</b> | <b>Requirements Description</b>   | <b>Compliance<br/><u>Full/Partial/None</u></b> | <b>Comment</b>  |
|--------------------------|---|--|---|
| V2-32330-01              | MPS shall simulate execution of stored absolute time commands (ATC) and relative time command (RTC) sequences.                                      | F  | <i>Support for ATC and RTCS enhanced to be responsive to actual spacecraft commands.</i>                          |
| V2-32330-02              | MPS shall process stored commands, sequentially, without regard to spacecraft clock values.   | F  | <i>Implementation differs from requirement to more closely reflect user need for ATC execution based on time.</i> |
| V2-32340-02              | MPS shall perform a CRC validation in the load data and shall set a pass/fail indicator in telemetry.   | F  |   |
| V2-32410-01              | MPS shall provide the capability to simulate EOS AM-1 low-rate spacecraft return-link data.   | F  | <i>Support for Standby, Playback, and Diagnostic formats added or enhanced.</i>                                   |
| V2-32440-12              | MPS shall simulate playback of recorded telemetry data by generating and transmitting a static H/K packet in response to a Dump H/K buffer command. | F  | <i>Implementation differs from requirement to more closely reflect user need for non-static data packets.</i>     |

## **Attachment H - System Limitations**

### ***H.1 MPS Release 1.2.0 Limitations***

Some of the system limitations previously cited in the first two MPS releases have been removed with the addition of capabilities included in MPS Release 1.2.0. The following items were removed from the list of system limitations due to DR resolution (DR numbers in parentheses):

- Spacecraft memory loads and dumps via spacecraft commands (SMOdr00055, 56, 126)
- Housekeeping playback and standby telemetry formats (SMOdr00125, 172, 277)
- Stored command processing (SMOdr00128)

The remaining set of system limitations associated with the MPS is listed in H.1 for ease of reference.

| <b>DR. No.</b>                         | <b>Rel</b>        | <b>Sev</b>  | <b>Problem Description</b>   | <b>Possible Workaround</b>   |
|--|-------------------|-------------|--|--|
| SMODr0061                              | 1.0               | 2           | [EDOS Sim Mode] No current support of Kerberos file transfers (kFTP), which are required for rate buffered (RB) data files and spacecraft contact session (SCS) reports.   | Test with EOC with simple FTP. Requirement may be removed pending disposition of current ESDIS CCR.  |
| SMODr0098                              | 1.0               | 2           | [EDOS Sim Mode] MPS currently does not support transmission of a continuous stream of CLCW EDUs to its own UDP port. Single CLCW EDU transmission to same destination as packets manually controlled by user from GUI.   | Use EDOS and operate MPS in S/C Sim Mode.  |
| n/a                                    | 1.0               | 2           | MPS uses valid EOS AM-1 APID numbers when telemetry format is selected. It does not generate and transmit up to 512 unique APIDs. (Internal CCB Waiver accepted on V2-32410-03.)   | For any simulated data type, user can override APID number in outgoing packets by using Tlm Packet option in MPS Configure menu and setting byte offset and entering any APID number.                        |
| n/a                                    | 1.0               | 2           | [S/C Sim Mode] MPS uses valid EOS AM-1 VCID numbers when telemetry format is selected. It does not generate and transmit up to 31 unique VCIDs. (Internal CCB Waiver accepted on V2-32440-07.)   | For any simulated data type, user can override VCID number in outgoing CADUs by using Packet Format option in MPS Configure menu and selecting VCID Corrupt Header Field option to generate an invalid VCID. |
| SMODr00150<br>SMODr00151<br>SMODr00159 | 1.0<br>1.0<br>1.0 | 3<br>3<br>3 | [EDOS Sim Mode] MPS does not provide complete CODA generation capabilities as specified in the EDOS-EGS ICD (e.g., handling more than two return link channels, or maximum number of VCIDs), however, it should provide sufficient ranges for EOS AM-1 test support. (Internal CCB Waiver submitted on V2-34000-01.) | None. Later MPS releases could add enhancements to be applicable for other EOS spacecraft.   |
| SMODr00168                             | 1.0               | 1           | [EDOS Sim Mode] The MPS currently does not support multicasting but is required to do so. EDOS-EOC interface requires bi-directional multicasting: EDOS receives command data blocks (CDB) and transmits EDUs and CODAs.   | Use EDOS and operate MPS in S/C Sim Mode. The PDOs operating system is being upgraded to provide the necessary multicasting capability.  |
| SMODr00169                             | 1.0               | 2           | [EDOS Sim Mode] Current design does not support multiple, unique UDP port numbers. Up to 16 ports are needed for real time EDUs, 4 for CLCW EDUs, 2 for CODAs, and 2 for CDBs.   | Use EDOS and operate MPS in S/C Sim Mode. Capability will be implemented along with support for multicasting.  |
| SMODr00170                             | 1.0               | 3           | [EDOS Sim Mode] Signal files are not transmitted along with RB and SCS file transfers  | None. Capability will be added.  |

## H.2 MPS DR Workarounds

The following table provides suggested workarounds for a subset of open MPS Discrepancy Reports (DRs). DRs not found in this table have no suggested workaround.

| DR No.                         | Rel   | Sev | Description Of Discrepancy   | Suggested Workaround   |
|--------------------------------|-------|-----|--|--|
| SMODr00084                     | 1.0   | 2   | Attempted to test using activity log as data source => MPS compliance matrix indicated that this requirement was not delivered due to lack of information from outside sources.<br>[V2-32420-03]   | Assign ASCII messages to activity log mnemonics via the telemetry parameter override option.   |
| SMODr00111                     | 1.0   | 2   | Testing modeling functionality - attempted to model mnemonic which had a static value for its first ~2100 secs. => TLM values were not static. Attempted to model mnemonic which was decreasing in its first ~2100 secs => TLM values were increasing to ~255 then started over again. Attempted to override modeling type => set as static => TLM values continued as if modeling type had not been overridden. | Generate scenario files to emulate modeling function.  |
| SMODr00261                     | 1.1.0 | 3   | Sent control command to modify the next expected frame sequence no. (V(R)) and to make it = 64. The command counter, CLCW, and FARM-B counter updated correctly, but the next expected frame sequence no. (NEFC) remained=0 on the command status display.   | The label on the MPS GUI is incorrect. NEFC should be changed to RTYP (CLCW Report Type). The command counter represents the NEFC.   |
| SMODr00264                     | 1.1.0 | 2   | When closing the comm link in OMDSIM the following message 'muc_socket: error reading socket-unable to read socket for OMDSIM' is always sent to the session log. Impact to OMDSIM processing is unknown at this time, but the message appears to be reporting an error.   | This seems to be an informational/warning message. Socket errors are outside the range of the OMDSIM, and probably due to the operating system state on exit. No other problem connected to this manifests itself (e.g., "unable to reconnect"). |
| SMODr00267<br>{ XE "0340"<br>} | 1.1.0 | 2   | Tried to enter a zero in the VCID field on the return link physical channel panel of the CODA report but received a message indicating the value was invalid. The valid range for the VCID is 0-8.   | Since the GUI comes up with a default VCID of 0, leave it unchanged if 0 is desired. Once the VCID is changed, the GUI tests for limits and incorrectly declares 0 to be out of range.   |
| SMODr00269                     | 1.1.0 | 2   | The telemetry logging function is displaying messages with channel 3 (both) instead of reporting channel 1 and channel 2.  | Until this is fixed, remember that "Ch 3" means channel 1 and 2.   |

| DR No.                         | Rel   | Sev | Description Of Discrepancy   | Suggested Workaround   |
|--------------------------------|-------|-----|--|--|
| SMODr00271                     | 1.1.0 | 3   | The command errors counter increments by two on the command status display when receiving invalid commands with an incorrect length. The following messages were received in the MPS log ' Invalid CLTU received - incorrect length' and 'no sync in command.'   | This problem occurs when a command without a tail sequence is sent to the MPS. The commanding task is responding correctly given the information it is being passed by the HSIO firmware.  |
| SMODr00278<br>{ XE "0366"<br>} | 1.1.0 | 3   | Receive two messages when configuring the telemetry packet by parameter. The first message is correct and reports the parameter's setting. The second message 'Telemetry mode not found' provides no additional info and appears to be misleading.   | Both messages are correctly output as expected. The first message indicates ingestion of request and the second indicates failure to execute.  |
| SMODr00356                     | 1.2.0 | 3   | Set the jump pseudo-op in the ATC to execute the fourth command but it incorrectly executed the fifth command. The jump reference number (offset) is being calculated incorrectly (off by one).  | For now, adjust the index used to be one less than what is intended.   |
| SMODr00359                     | 1.2.0 | 3   | Entered 'U_SETREPLAY_ON' in user command box while data from HK file is being transmitted. After clicking OK, the user receives several messages indicating the data source HK file has been reset to 'U_SETREPLAY_ON'. The user should not be allowed to reset the data source while tlm transmission is in progress. Also the user command should not overwrite the HK file name. Entering data in the user command box should not interfere with the data source setting. | After using the user command window, toggle on PDB option first, and then select HK file when selecting a HK file. This will keep the interference between user command box and HK box both to a minimum. Full functionality still exists. |

**Attachment I - Release History Summary Matrix**

Attached is the release history summary matrix which reflects the MPS Release 1.2.0 delivery.

Release History Summary Matrix

1-2

Revised 6/6/97

## Attachment J - Listing of Delivery Contents

### MPS Release 1.2.0, MVME177 Source Software (Floppy Disk 1 of 4), 6/6/97

Volume in drive B has no label  
Volume Serial Number is 2A29-14F3

Directory of B:\ CI 1.4

|           |         |          |       |
|-----------|---------|----------|-------|
| GT_DIR    | <DIR>   | 05-05-97 | 9:00a |
| DS_DIR    | <DIR>   | 05-05-97 | 9:00a |
| SM_DIR    | <DIR>   | 05-05-97 | 9:00a |
| TO_DIR    | <DIR>   | 05-05-97 | 9:00a |
| INC       | <DIR>   | 05-05-97 | 9:00a |
| XT_DIR    | <DIR>   | 05-05-97 | 9:00a |
| TY_DIR    | <DIR>   | 05-05-97 | 9:00a |
| 7 file(s) | 0 bytes |          |       |

Directory of B:\DS\_DIR CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:00a  |
| ..          | <DIR>        | 05-05-97 | 9:00a  |
| DS_WRIT.C   | 2,156        | 03-14-97 | 9:28a  |
| DS_MAIN.C   | 10,397       | 03-14-97 | 10:23a |
| DS_TOPKT.H  | 6,022        | 07-08-96 | 3:42p  |
| DS_SMTBL.H  | 5,496        | 02-16-94 | 3:51p  |
| MAIN_DS.H   | 1,727        | 02-17-94 | 9:25a  |
| DS_STRPK.H  | 7,250        | 09-01-94 | 1:40p  |
| DS_STR.H    | 13,711       | 10-18-94 | 10:46a |
| DS_INCS.H   | 793          | 10-13-95 | 9:01a  |
| DS_SEG.H    | 6,825        | 01-15-96 | 10:29a |
| DS SCI.H    | 337          | 02-08-95 | 9:10a  |
| DS_DEF.H    | 4,724        | 01-15-96 | 4:25p  |
| DS_INIT.H   | 10,623       | 01-02-96 | 2:34p  |
| DS.H        | 1,050        | 12-30-96 | 4:45p  |
| COMP_DS.BAT | 34           | 11-26-96 | 5:29p  |
| CF.BAT      | 34           | 10-08-96 | 4:40p  |
| LINK_DS.CMD | 697          | 11-26-96 | 5:30p  |
| 18 file(s)  | 71,876 bytes |          |        |

Directory of B:\GT\_DIR CI 1.4

|            |       |          |        |
|------------|-------|----------|--------|
| .          | <DIR> | 05-05-97 | 9:00a  |
| ..         | <DIR> | 05-05-97 | 9:00a  |
| GT_INS.C   | 2,628 | 11-17-94 | 6:36p  |
| GT_FMT.C   | 2,331 | 01-18-96 | 10:53a |
| GT_TRAV.C  | 1,414 | 09-13-93 | 1:36p  |
| GT_EVENT.C | 2,430 | 03-20-97 | 6:18p  |
| GT_FIND.C  | 1,458 | 01-05-94 | 11:13a |
| GT_GAPID.C | 1,717 | 01-05-94 | 11:39a |
| GT_GNAME.C | 1,447 | 01-05-94 | 11:46a |
| GT_SAPID.C | 1,933 | 07-12-94 | 5:21p  |
| GT_SNAME.C | 1,797 | 07-12-94 | 5:21p  |

|              |       |          |        |
|--------------|-------|----------|--------|
| GT_UPD.C     | 1,569 | 11-02-94 | 6:34p  |
| GT_SNVAL.C   | 3,020 | 11-15-95 | 2:19p  |
| GT_SAVAL.C   | 2,715 | 11-15-95 | 6:09p  |
| GT_ACT.C     | 1,440 | 12-30-94 | 12:30p |
| GT_Q_PKT.C   | 2,783 | 11-17-94 | 7:12p  |
| GT_CREAT.C   | 4,836 | 07-18-96 | 2:08p  |
| GT_ACST.C    | 3,821 | 07-18-96 | 2:09p  |
| GT_ACSDL.C   | 1,824 | 11-17-94 | 5:59p  |
| GT_ACSEN.C   | 1,668 | 11-17-94 | 6:03p  |
| GT_ACSET.C   | 2,595 | 02-06-95 | 4:37p  |
| PRT_ACS.C    | 2,066 | 12-07-94 | 3:26p  |
| PRT_PKT.C    | 1,930 | 01-30-94 | 12:33p |
| GT_DPPKT.C   | 6,348 | 05-02-97 | 12:12p |
| GT_INVL.C    | 1,738 | 08-25-94 | 12:54p |
| GT_SEND.C    | 2,695 | 03-31-95 | 8:41a  |
| GT_INIT.C    | 2,237 | 03-20-97 | 4:41p  |
| GT_MAIN.C    | 3,542 | 04-28-97 | 4:08p  |
| GT_PIN.C     | 3,821 | 04-17-97 | 10:40a |
| GT_RESET.C   | 1,296 | 04-21-97 | 12:06p |
| GT_NODMP.C   | 2,250 | 04-17-97 | 1:29p  |
| GT_INIT.H    | 1,829 | 11-15-93 | 1:19p  |
| GT_STR.H     | 1,352 | 11-12-93 | 3:12p  |
| GT_INCS.H    | 569   | 02-23-96 | 3:11p  |
| GT_INVM.H    | 765   | 12-10-93 | 5:05p  |
| GT_ACS.H     | 1,095 | 11-17-94 | 6:06p  |
| GT_BSTR.H    | 1,712 | 02-16-96 | 2:32p  |
| GT.H         | 2,023 | 03-19-97 | 9:01a  |
| GT_DEF.H     | 1,388 | 02-20-97 | 10:17a |
| CF.BAT       | 34    | 04-22-96 | 10:25a |
| COMP_GT.BAT  | 189   | 04-17-97 | 9:43a  |
| LINK_SC2.CMD | 1,480 | 05-17-96 | 9:29a  |
| LINK2_SC.CMD | 1,480 | 05-17-96 | 9:30a  |
| LINK_GT.CMD  | 854   | 04-17-97 | 9:44a  |

44 file(s) 86,119 bytes

#### Directory of B:\INC

CI 1.4

|            |       |          |        |
|------------|-------|----------|--------|
| .          | <DIR> | 05-05-97 | 9:00a  |
| ..         | <DIR> | 05-05-97 | 9:00a  |
| OPS_MIDS.H | 1,208 | 09-25-95 | 3:06p  |
| SCDEF.H    | 2,499 | 02-11-96 | 12:59p |
| CMD_MIDS.H | 4,720 | 10-13-94 | 12:50p |
| IOCONF.H   | 2,096 | 02-08-93 | 12:55p |
| GLOBALS.H  | 1,768 | 04-26-94 | 2:00p  |
| DP_PKT.H   | 1,317 | 08-09-94 | 4:52p  |
| TLM_MIDS.H | 4,071 | 10-14-94 | 1:37p  |
| MDL_MIDS.H | 3,549 | 02-06-95 | 3:32p  |
| COMPILER.H | 1,214 | 10-27-93 | 3:14p  |
| OPDEF.H    | 4,447 | 03-24-95 | 3:32p  |
| WRITE_TI.H | 766   | 03-19-94 | 2:34p  |
| HSIO.H     | 2,777 | 10-27-93 | 4:10p  |
| PUB_TI.H   | 2,284 | 08-06-96 | 6:42a  |
| FUNC_MC.H  | 775   | 06-26-96 | 8:37a  |
| PUB_MC.408 | 1,470 | 05-16-96 | 7:36a  |

|             |        |          |        |
|-------------|--------|----------|--------|
| SCSTR.H     | 3,881  | 04-02-96 | 8:51a  |
| BASEPSS.H   | 623    | 09-10-93 | 2:16p  |
| PTRTB_MT.H  | 746    | 02-10-97 | 8:12a  |
| PDBOLD.H    | 14,933 | 10-13-94 | 11:41a |
| PUB_OP.H    | 1,401  | 04-06-95 | 12:33p |
| PSSDEF.H    | 2,509  | 02-10-97 | 8:06a  |
| PUB_MT.H    | 2,336  | 12-03-96 | 4:32p  |
| PUB_CI.BAK  | 2,095  | 10-10-96 | 3:26p  |
| PUB_SM.404  | 1,696  | 03-06-97 | 2:12p  |
| INIT_TO.H   | 2,825  | 12-07-93 | 2:46p  |
| GADDR_TO.H  | 737    | 04-14-94 | 2:26p  |
| PUB_TO.H    | 1,791  | 10-03-96 | 2:54p  |
| MPS.024     | 12,614 | 10-22-96 | 1:41p  |
| MAIN_TO.H   | 1,715  | 12-07-93 | 11:44a |
| OPSTR.H     | 8,155  | 01-24-94 | 12:39p |
| PUB_GT.220  | 1,743  | 04-23-96 | 1:36p  |
| QGLS_OP.H   | 3,677  | 01-24-94 | 12:34p |
| QOPT_OP.H   | 2,135  | 01-24-94 | 12:33p |
| TBREG_SM.H  | 1,179  | 08-02-94 | 5:33p  |
| PUB_MO.H    | 1,562  | 10-22-96 | 10:58a |
| PUB_AE.H    | 709    | 09-02-94 | 5:42p  |
| PUB_AC.H    | 999    | 03-02-95 | 9:30a  |
| OP_TASK.H   | 1,072  | 02-21-93 | 7:01p  |
| PUB_DS.H    | 2,526  | 12-30-96 | 3:42p  |
| GLO_DEF.H   | 1,401  | 04-06-95 | 1:56p  |
| PUB_AM.H    | 973    | 03-27-95 | 3:59p  |
| PUB_PB.H    | 790    | 04-21-94 | 2:04p  |
| PUB_AD.H    | 802    | 03-30-95 | 1:56p  |
| SP_TIDS.H   | 11,810 | 10-15-95 | 12:49p |
| AP_TIDS.H   | 8,172  | 11-08-95 | 4:03p  |
| PUB_ME.H    | 1,027  | 01-31-95 | 12:56p |
| PUB_SC.H    | 830    | 04-03-97 | 1:22p  |
| MODELSTR.H  | 8,117  | 08-29-96 | 2:29p  |
| TO_PKT.220  | 4,779  | 03-20-96 | 2:22p  |
| DS_TOPKT.H  | 5,985  | 04-25-94 | 3:07p  |
| SIDS.H      | 19,262 | 10-12-95 | 2:40p  |
| MPSPKT.H    | 1,931  | 06-13-96 | 1:11p  |
| TO_DEF.H    | 3,951  | 08-29-96 | 2:18p  |
| HSIO2.H     | 2,180  | 02-20-96 | 3:04p  |
| PDB_H.OLD   | 16,119 | 07-25-96 | 3:55p  |
| SM_PKT.H    | 22,637 | 10-11-95 | 5:30p  |
| MPS_H.DEC   | 12,934 | 12-05-96 | 2:58p  |
| SAVE.BAT    | 430    | 04-11-96 | 9:03a  |
| MPS.H       | 13,398 | 02-03-97 | 12:45p |
| ETS.NEW     | 2,159  | 08-23-96 | 7:51a  |
| EDU.H       | 2,214  | 06-29-96 | 11:56a |
| PUB_XT.H    | 6,564  | 04-09-97 | 10:45a |
| EDGM.H      | 4,931  | 07-24-96 | 6:15a  |
| TO_DEF.723  | 3,839  | 04-02-96 | 11:53a |
| PUB_TI.806  | 2,183  | 08-04-95 | 4:51p  |
| BILL.TXT    | 8,641  | 07-27-96 | 11:46a |
| PUB_DSH.SAV | 2,068  | 03-24-95 | 2:48p  |
| ETS.H       | 2,685  | 12-05-96 | 2:58p  |
| COMP_TI.BAT | 528    | 07-19-96 | 1:29p  |

|             |               |          |        |
|-------------|---------------|----------|--------|
| LINK_TI.CMD | 1,220         | 12-29-94 | 2:13p  |
| FQ2.H       | 3,942         | 06-18-96 | 2:33p  |
| MPS.FIN     | 10,912        | 09-06-96 | 9:00a  |
| ETS.FIN     | 2,578         | 09-06-96 | 9:01a  |
| MPS_H.912   | 10,912        | 09-06-96 | 9:00a  |
| PUB_XT.125  | 4,923         | 11-19-96 | 1:13a  |
| ETS.122     | 2,578         | 09-06-96 | 9:01a  |
| PUB_DI.H    | 1,406         | 02-10-97 | 8:10a  |
| PDB.EEQ     | 14,279        | 01-21-97 | 3:25p  |
| PUB_CI.H    | 2,281         | 03-17-97 | 2:12p  |
| PDB.H       | 14,505        | 04-14-97 | 4:04p  |
| PUB_DI.128  | 1,090         | 10-08-96 | 4:03p  |
| PSSDEF.128  | 2,416         | 01-30-96 | 10:51a |
| PUB_DI.130  | 1,288         | 01-30-97 | 9:46a  |
| MPS.NEW     | 13,398        | 02-03-97 | 12:45p |
| MPS.B12     | 13,327        | 12-12-96 | 9:15a  |
| PUB_GT.H    | 2,190         | 04-17-97 | 9:36a  |
| TO_PKT.H    | 4,851         | 02-20-97 | 10:47a |
| PUB_SM.BAK  | 1,857         | 04-03-97 | 11:06a |
| PUB_SM.408  | 1,855         | 04-04-97 | 11:26a |
| PUB_XT.OLD  | 6,153         | 03-13-97 | 10:15a |
| PUB_MC.H    | 1,546         | 04-25-97 | 2:33p  |
| PUB_SM.410  | 1,913         | 04-08-97 | 10:48a |
| PUB_SM.H    | 2,262         | 04-18-97 | 2:02p  |
| 95 file(s)  | 405,642 bytes |          |        |

Directory of B:\SM\_DIR

CI 1.4

|            |        |          |        |
|------------|--------|----------|--------|
| .          | <DIR>  | 05-05-97 | 9:00a  |
| ..         | <DIR>  | 05-05-97 | 9:00a  |
| SM_COPY.C  | 1,381  | 04-16-97 | 11:11a |
| SM_MAIN.C  | 5,115  | 04-18-97 | 12:41p |
| SM_INIT.C  | 8,547  | 04-25-97 | 4:34p  |
| SM_SCCLD.C | 2,671  | 04-24-97 | 9:34a  |
| SM_CXSUM.C | 1,351  | 09-10-96 | 7:14a  |
| SM_MLIST.C | 9,914  | 09-10-96 | 7:08a  |
| SM_MCOPY.C | 4,732  | 09-10-96 | 7:13a  |
| SM_DPABO.C | 3,453  | 04-24-97 | 10:48a |
| SM_SCTBL.C | 25,331 | 02-27-97 | 2:59p  |
| SM_SYTBL.C | 12,344 | 02-27-97 | 2:59p  |
| SM_SCCDP.C | 2,682  | 04-24-97 | 9:36a  |
| SM_SETME.C | 3,477  | 02-18-97 | 3:57p  |
| SM_GNBLK.C | 2,035  | 04-24-97 | 10:16a |
| SM_LOG.C   | 4,010  | 02-28-97 | 8:20a  |
| SM_MEMLD.C | 2,885  | 04-29-97 | 9:45a  |
| SM_MLOAD.C | 3,708  | 04-29-97 | 10:46a |
| SM_PUTQ.C  | 1,147  | 04-24-97 | 8:37a  |
| SM_LDRST.C | 3,428  | 04-29-97 | 10:57a |
| SM_GNABS.C | 1,747  | 04-15-97 | 11:13a |
| SM_GNTBL.C | 1,756  | 04-15-97 | 11:14a |
| SM_CCITT.C | 2,134  | 04-11-97 | 9:47a  |
| SM_BDDMP.C | 4,491  | 02-14-97 | 1:32p  |
| SM_DPRST.C | 2,064  | 04-24-97 | 11:08a |
| SM_GNSTR.C | 2,168  | 04-24-97 | 10:19a |

|             |               |          |        |
|-------------|---------------|----------|--------|
| SM_TDREQ.C  | 3,345         | 04-24-97 | 8:26a  |
| SM_CRC.C    | 2,297         | 04-29-97 | 10:30a |
| SM_MDREQ.C  | 2,665         | 04-24-97 | 8:26a  |
| SM_GATHR.C  | 2,942         | 04-24-97 | 11:51a |
| SM_LDTBL.C  | 4,182         | 04-29-97 | 10:48a |
| SM_STRCT.H  | 29,579        | 04-17-97 | 1:26p  |
| SM_TBL.H    | 6,857         | 06-05-96 | 10:56a |
| SM_SCTBL.H  | 1,019         | 08-09-94 | 4:58p  |
| SM_SYTBL.H  | 989           | 08-09-94 | 5:01p  |
| SM_INCS.H   | 1,498         | 03-06-97 | 1:49p  |
| SM_PROTO.H  | 3,503         | 04-18-97 | 2:14p  |
| SM_INIT.H   | 5,235         | 05-30-97 | 9:28a  |
| SM.H        | 5,266         | 04-29-97 | 8:59a  |
| COMP_SM.BAT | 1,715         | 04-18-97 | 2:16p  |
| CF.BAT      | 34            | 10-04-96 | 12:34p |
| LINK_SM.CMD | 1,643         | 04-18-97 | 2:17p  |
| 42 file(s)  | 185,340 bytes |          |        |

Directory of B:\TO\_DIR

CI 1.4

|            |        |          |        |
|------------|--------|----------|--------|
| .          | <DIR>  | 05-05-97 | 9:00a  |
| ..         | <DIR>  | 05-05-97 | 9:00a  |
| TO_PBSTR.C | 4,561  | 02-20-96 | 3:10p  |
| TO_CWUPD.C | 1,085  | 12-07-93 | 2:37p  |
| TO_INITR.C | 1,096  | 12-07-93 | 2:56p  |
| TO_INLIS.C | 1,533  | 10-06-94 | 3:06p  |
| TO_SETEC.C | 2,248  | 07-28-95 | 5:19p  |
| TO_DPTLM.C | 1,567  | 03-11-96 | 3:51p  |
| TO_TIMEC.C | 1,022  | 12-07-93 | 3:10p  |
| TO_RTSTP.C | 1,531  | 02-04-97 | 1:44p  |
| TO_SETPB.C | 1,664  | 10-17-95 | 9:24a  |
| TO_SETFL.C | 1,030  | 12-07-93 | 3:07p  |
| TO_PBSTP.C | 1,349  | 05-03-94 | 4:05p  |
| TO_OPSTP.C | 1,552  | 07-20-96 | 11:24a |
| TO_STOP.C  | 1,096  | 08-08-94 | 2:27p  |
| TO_SETXM.C | 2,179  | 09-28-94 | 4:15p  |
| TO_SETRT.C | 5,202  | 07-11-96 | 2:29p  |
| TO_START.C | 3,386  | 07-11-95 | 11:30a |
| TO_OPSTR.C | 1,717  | 07-11-96 | 2:25p  |
| TCM_ENCO.C | 3,480  | 01-28-94 | 2:41p  |
| TO_BLHDR.C | 11,442 | 10-13-95 | 12:54p |
| TO_RCVMS.C | 1,704  | 09-16-94 | 8:28a  |
| TO_STDMP.C | 4,993  | 10-20-94 | 7:54a  |
| TO_ABDMP.C | 3,240  | 08-02-94 | 4:09p  |
| TO_PACRE.C | 4,442  | 03-06-97 | 2:47p  |
| TO_CANCE.C | 3,707  | 03-06-97 | 2:46p  |
| TO_PROCD.C | 4,272  | 12-12-94 | 1:08p  |
| TO_EXTPK.C | 3,368  | 12-12-94 | 1:07p  |
| TO_DFRAM.C | 4,854  | 12-12-94 | 1:08p  |
| TO_DPKT.C  | 5,260  | 12-12-94 | 1:10p  |
| TO_EVTAB.C | 2,135  | 12-12-94 | 1:10p  |
| TO_CDMSG.C | 3,649  | 03-06-97 | 2:46p  |
| TO_RINIT.C | 3,975  | 10-13-95 | 12:07p |
| TO_INIT.C  | 3,372  | 01-15-97 | 2:10a  |

|              |               |          |        |
|--------------|---------------|----------|--------|
| TO_HSIO_.C   | 2,766         | 09-26-96 | 6:41p  |
| TO_RCVHK.C   | 1,068         | 02-27-96 | 3:48p  |
| TO_GADDR.C   | 1,541         | 03-05-96 | 10:17a |
| TQ_HSIO_.C   | 2,702         | 03-21-96 | 2:30p  |
| TO_HBRD.C    | 2,264         | 05-03-96 | 9:32a  |
| TO_RBF.C     | 1,299         | 10-07-96 | 12:41p |
| TO_UESH.C    | 2,242         | 10-04-96 | 9:38a  |
| TO_INES.C    | 2,779         | 08-30-96 | 10:31a |
| TO_SET_T.C   | 4,112         | 04-25-97 | 10:03a |
| TO_SET_H.C   | 2,112         | 11-14-96 | 3:04p  |
| TO_RTSTR.C   | 11,396        | 02-22-97 | 11:45a |
| TO_VCDU.C    | 4,563         | 04-24-97 | 3:04p  |
| TO_EDU.C     | 9,133         | 04-09-97 | 1:12p  |
| TO_MAIN.C    | 15,630        | 04-17-97 | 1:22p  |
| NASCOM.H     | 1,680         | 06-17-93 | 9:44a  |
| TO_INCS.H    | 752           | 09-25-96 | 4:41p  |
| STRUCT.H     | 1,174         | 01-27-94 | 4:52p  |
| RSTABLES.H   | 6,383         | 01-05-94 | 5:29p  |
| TO_INIT.H    | 3,892         | 10-19-94 | 9:59a  |
| TO_STR.H     | 10,589        | 02-20-96 | 2:59p  |
| DS_SCI.H     | 337           | 02-08-95 | 9:10a  |
| TO_PKT.H     | 5,018         | 02-20-97 | 2:54p  |
| TO.H         | 8,748         | 02-20-97 | 2:52p  |
| COMP_TO.BAT  | 871           | 10-07-96 | 4:20p  |
| T.BAT        | 16            | 03-18-96 | 2:45p  |
| B.BAT        | 36            | 03-18-96 | 1:15p  |
| CF.BAT       | 34            | 04-22-96 | 10:36a |
| LINK_TO.CMD  | 1,592         | 09-25-96 | 1:13p  |
| LINK_BIL.CMD | 1,393         | 06-11-96 | 11:00a |
| 63 file(s)   | 203,833 bytes |          |        |

Directory of B:\TY\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:00a  |
| ..          | <DIR>        | 05-05-97 | 9:00a  |
| TY_MODEL.C  | 2,933        | 09-29-96 | 10:58a |
| TY_TLM.C    | 3,078        | 07-20-96 | 11:34a |
| TY_CASE.C   | 7,158        | 12-04-96 | 5:40p  |
| TY_2CASE.C  | 8,852        | 03-28-97 | 12:32p |
| TY_HSIO.C   | 2,165        | 12-18-96 | 11:50a |
| TY_MON.C    | 3,995        | 04-09-97 | 11:13a |
| TY_CFIG.C   | 5,729        | 04-25-97 | 10:01a |
| TY_RBF.C    | 4,889        | 03-14-97 | 8:49a  |
| TY_LOG.C    | 4,118        | 01-27-97 | 2:39p  |
| TY_MAIN.C   | 18,659       | 04-25-97 | 9:54a  |
| TY_DEF.H    | 2,387        | 05-06-96 | 2:29p  |
| COMP_TY.BAT | 170          | 12-18-96 | 3:37p  |
| CF.BAT      | 36           | 09-29-96 | 10:59a |
| LINK_TY.CMD | 1,090        | 12-20-96 | 10:32a |
| 16 file(s)  | 65,259 bytes |          |        |

Directory of B:\XT\_DIR

CI 1.4

|   |       |          |       |
|---|-------|----------|-------|
| . | <DIR> | 05-05-97 | 9:00a |
|---|-------|----------|-------|

|             |               |          |        |
|-------------|---------------|----------|--------|
| ..          | <DIR>         | 05-05-97 | 9:00a  |
| XT_MAIN.C   | 16,396        | 04-11-97 | 3:46p  |
| TQ_RTSTP.C  | 1,616         | 02-04-97 | 1:51p  |
| TQ_HSIOS.C  | 2,922         | 09-26-96 | 6:48p  |
| TQ_RTSTR.C  | 11,293        | 04-23-97 | 2:01p  |
| TQ_EDU.C    | 9,506         | 04-09-97 | 1:28p  |
| XT_INIT.C   | 2,856         | 04-09-97 | 11:17a |
| TQ_RBF.C    | 1,318         | 10-07-96 | 12:45p |
| TQ_INES.C   | 2,761         | 08-30-96 | 10:29a |
| TQ_UESH.C   | 2,547         | 10-04-96 | 9:39a  |
| TQ_CLCW.C   | 2,714         | 09-23-96 | 9:10a  |
| TQ_SNDCW.C  | 2,475         | 01-19-97 | 3:06p  |
| XRSE.C      | 7,362         | 09-25-96 | 10:29a |
| TQ_VCDU.C   | 5,209         | 04-24-97 | 2:49p  |
| STRUCT.H    | 1,174         | 01-27-94 | 4:52p  |
| RSTABLES.H  | 6,383         | 01-05-94 | 5:29p  |
| XT.H        | 2,130         | 02-20-97 | 3:44p  |
| DS_STR.H    | 13,711        | 10-18-94 | 10:46a |
| DS_DEF.H    | 4,724         | 01-15-96 | 4:25p  |
| PB.H        | 1,609         | 03-21-96 | 10:14a |
| TO_STR.H    | 10,589        | 02-20-96 | 2:59p  |
| COMP_XT.BAT | 259           | 09-25-96 | 5:21p  |
| CF.BAT      | 34            | 04-22-96 | 10:42a |
| LINK_XT.CMD | 1,033         | 11-18-96 | 3:13a  |
| 25 file(s)  | 110,621 bytes |          |        |

Total files listed:

|             |                    |
|-------------|--------------------|
| 310 file(s) | 1,128,690 bytes    |
|             | 236,544 bytes free |

### MPS Release 1.2.0, MVME177 Source Software (Floppy Disk 2 of 4), 6/6/97

Volume in drive B has no label  
 Volume Serial Number is 3F4B-14F4

Directory of B:\ CI 1.4

|            |         |          |       |
|------------|---------|----------|-------|
| AD_DIR     | <DIR>   | 05-05-97 | 9:12a |
| OP_DIR     | <DIR>   | 05-05-97 | 9:12a |
| MC_DIR     | <DIR>   | 05-05-97 | 9:12a |
| DI_DIR     | <DIR>   | 05-05-97 | 9:12a |
| TI_DIR     | <DIR>   | 05-05-97 | 9:12a |
| SC_DIR     | <DIR>   | 05-05-97 | 9:12a |
| CL_DIR     | <DIR>   | 05-05-97 | 9:12a |
| NETWORK    | <DIR>   | 05-05-97 | 9:12a |
| IN_DIR     | <DIR>   | 05-05-97 | 9:12a |
| MO_DIR     | <DIR>   | 05-05-97 | 9:12a |
| UT_DIR     | <DIR>   | 05-05-97 | 9:12a |
| MT_DIR     | <DIR>   | 05-05-97 | 9:12a |
| 12 file(s) | 0 bytes |          |       |

Directory of B:\AD\_DIR CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| AD_SEND.C   | 4,210        | 10-11-96 | 2:26p  |
| AD_ALLOC.C  | 1,811        | 08-14-96 | 10:16a |
| AD_CTRL.C   | 5,051        | 06-09-95 | 4:42p  |
| AD_MAIN.C   | 2,797        | 08-14-96 | 10:13a |
| AD.H        | 1,654        | 05-01-94 | 4:31p  |
| COMP_AD.BAT | 71           | 05-13-96 | 2:56p  |
| CF.BAT      | 34           | 10-04-96 | 11:02a |
| LINK_AD.CMD | 907          | 03-30-95 | 1:53p  |
| 10 file(s)  | 16,535 bytes |          |        |

Directory of B:\CL\_DIR

CI 1.4

|            |        |          |        |
|------------|--------|----------|--------|
| .          | <DIR>  | 05-05-97 | 9:12a  |
| ..         | <DIR>  | 05-05-97 | 9:12a  |
| CL_HSIO.C  | 5,444  | 02-07-97 | 1:57p  |
| CL_SER.C   | 2,562  | 04-16-97 | 11:17a |
| CL_ROUTE.C | 2,226  | 02-07-97 | 9:54a  |
| CL_MAIN.C  | 9,635  | 04-16-97 | 11:16a |
| CL_ACPT.C  | 11,064 | 03-17-97 | 4:12p  |
| CL_SEG.C   | 4,322  | 02-07-97 | 9:55a  |
| CL_PKT.C   | 5,882  | 01-23-97 | 9:26a  |
| CL_CXSUM.C | 1,598  | 09-10-96 | 5:53a  |
| CL_DPCMD.C | 1,543  | 09-10-96 | 6:58a  |
| CL_LOGPK.C | 1,384  | 09-10-96 | 6:59a  |
| CL_LOGTF.C | 1,375  | 09-10-96 | 5:52a  |
| CL_LOGCB.C | 2,366  | 09-10-96 | 5:54a  |
| CL_TYPIN.C | 12,604 | 10-18-96 | 5:19p  |
| CL_RCVHK.C | 3,023  | 09-10-96 | 6:58a  |
| CL_TFCTR.C | 2,025  | 09-10-96 | 7:00a  |
| CL_CTRL.C  | 4,944  | 02-06-97 | 4:04p  |
| CL_CHHDR.C | 11,341 | 09-11-96 | 8:27a  |
| CL_VLSEQ.C | 7,955  | 02-10-97 | 8:25a  |
| CL_M2L.C   | 2,299  | 09-10-96 | 7:16a  |
| CL_ARGS.C  | 3,042  | 10-11-96 | 1:58p  |
| CL_CRC.C   | 3,805  | 02-10-97 | 8:23a  |
| CL_UDP.C   | 7,227  | 03-17-97 | 4:33p  |
| CL_INIT.C  | 9,573  | 02-10-97 | 8:53a  |
| CL_PUTQ.C  | 1,147  | 03-17-97 | 3:43p  |
| CL_ADDCB.C | 9,792  | 04-21-97 | 11:13a |
| CL_BLOCK.C | 6,656  | 03-17-97 | 4:21p  |
| CL_LOG.C   | 11,063 | 02-10-97 | 8:31a  |
| CL_TFCON.C | 5,149  | 03-17-97 | 4:32p  |
| CL_POLY.C  | 4,613  | 02-10-97 | 8:32a  |
| CL_BYPAS.C | 7,502  | 03-17-97 | 4:31p  |
| CL_TFCHK.C | 5,538  | 03-17-97 | 4:35p  |
| CL_VLPKT.C | 4,505  | 03-17-97 | 4:37p  |
| CL_INIT.H  | 7,019  | 02-10-97 | 8:22a  |
| CL_INCS.H  | 891    | 06-25-96 | 8:21a  |
| CL_PKT.H   | 8,640  | 02-20-96 | 1:43p  |
| CL_STR.H   | 4,284  | 12-07-95 | 10:46a |
| CL.H       | 4,289  | 02-10-97 | 8:20a  |
| CL_DEF.H   | 2,099  | 02-28-97 | 11:41a |

|             |               |          |       |
|-------------|---------------|----------|-------|
| COMP_CI.BAT | 1,305         | 03-17-97 | 4:13p |
| CF.BAT      | 34            | 10-02-96 | 5:31p |
| LINK_CI.CMD | 1,339         | 03-17-97 | 4:13p |
| 43 file(s)  | 203,104 bytes |          |       |

Directory of B:\DI\_DIR CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| DI_NUM.C    | 1,544        | 04-09-94 | 6:26p  |
| DI_CHAR.C   | 1,547        | 01-24-94 | 3:45p  |
| DI_REFR.C   | 934          | 12-09-93 | 8:37p  |
| DI_INIT3.C  | 8,451        | 08-09-96 | 3:30p  |
| DI_DUMP.C   | 2,509        | 10-03-96 | 5:57p  |
| DI_GDUMP.C  | 8,601        | 04-09-94 | 5:02p  |
| DI_TELEM.C  | 2,202        | 10-28-94 | 7:27p  |
| DI_CHANG.C  | 1,178        | 01-25-94 | 3:21p  |
| DI_INIT2.C  | 3,925        | 08-09-96 | 3:27p  |
| DI_INIT.C   | 1,134        | 02-03-97 | 12:45p |
| DI_MAIN.C   | 8,912        | 04-15-97 | 11:19a |
| DI_PUTQ.C   | 1,338        | 04-24-97 | 8:42a  |
| DI.H        | 866          | 10-03-96 | 5:50p  |
| DI_STAT.H   | 2,080        | 09-10-96 | 3:42p  |
| DI_INIT1.H  | 889          | 08-16-94 | 7:22p  |
| DI_INIT2.H  | 5,553        | 01-04-96 | 2:25p  |
| DI_STAT1.H  | 5,186        | 10-28-94 | 7:25p  |
| DI_STAT2.H  | 4,713        | 01-04-96 | 2:25p  |
| DI_STAT3.H  | 4,364        | 05-10-94 | 5:09p  |
| DI_INIT3.H  | 4,443        | 05-10-94 | 4:47p  |
| COMP_DI.BAT | 68           | 01-31-97 | 2:25p  |
| CF.BAT      | 34           | 10-03-96 | 5:58p  |
| LINK_DI.CMD | 807          | 01-31-97 | 2:26p  |
| 25 file(s)  | 71,278 bytes |          |        |

Directory of B:\IN\_DIR CI 1.4

|             |             |          |        |
|-------------|-------------|----------|--------|
| .           | <DIR>       | 05-05-97 | 9:12a  |
| ..          | <DIR>       | 05-05-97 | 9:12a  |
| IN_MAIN.C   | 5,895       | 10-04-96 | 11:09a |
| COMP_IN.BAT | 22          | 10-04-96 | 11:05a |
| CF.BAT      | 34          | 10-04-96 | 11:10a |
| LINK_IN.CMD | 691         | 01-24-94 | 12:40p |
| 6 file(s)   | 6,642 bytes |          |        |

Directory of B:\MC\_DIR CI 1.4

|           |       |          |       |
|-----------|-------|----------|-------|
| .         | <DIR> | 05-05-97 | 9:12a |
| ..        | <DIR> | 05-05-97 | 9:12a |
| MC_INIT.C | 2,042 | 04-25-97 | 2:34p |
| MC_SUBS.C | 3,874 | 09-10-96 | 7:05a |
| MC_CTRL.C | 1,449 | 09-10-96 | 7:05a |
| MC_FUNC.C | 1,591 | 02-19-97 | 2:26p |
| MC_HASH.C | 1,356 | 09-10-96 | 7:07a |
| MC_FIND.C | 1,508 | 09-10-96 | 7:00a |

|             |              |          |        |
|-------------|--------------|----------|--------|
| MC_MSG.C    | 5,849        | 04-24-97 | 8:51a  |
| MC_SETVR.C  | 1,500        | 03-17-97 | 2:57p  |
| MC_MAIN.C   | 3,285        | 04-08-97 | 11:59a |
| MC_IDEN.C   | 6,123        | 04-17-97 | 8:27a  |
| MC_CMDS.C   | 4,793        | 04-17-97 | 8:26a  |
| MC_PSEND.C  | 4,045        | 03-17-97 | 2:56p  |
| MC_VERS.C   | 3,018        | 12-12-96 | 1:03p  |
| MC_CHKFX.C  | 2,752        | 01-29-97 | 5:23p  |
| MC_CHKVR.C  | 2,834        | 07-23-96 | 12:30p |
| MC_NRML.C   | 7,281        | 04-24-97 | 8:40a  |
| MC_PUTQ.C   | 1,147        | 04-24-97 | 8:39a  |
| MC_XQT.C    | 3,639        | 04-29-97 | 9:27a  |
| MC_INCS.H   | 581          | 03-07-95 | 11:52a |
| MC_PROTO.H  | 2,897        | 05-30-96 | 6:44a  |
| MC.H        | 2,779        | 04-03-97 | 10:37a |
| COMP_MC.BAT | 1,484        | 04-15-97 | 3:56p  |
| CF.BAT      | 34           | 10-04-96 | 12:35p |
| LINK_MC.CMD | 1,565        | 03-17-97 | 4:59p  |
| 26 file(s)  | 67,426 bytes |          |        |

Directory of B:\MO\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| MO_CHMD2.C  | 3,655        | 10-22-96 | 5:39p  |
| MO_CHMOD.C  | 4,393        | 10-22-96 | 10:55a |
| MO_COS.C    | 1,593        | 01-17-95 | 1:36p  |
| MO_DISMO.C  | 7,962        | 08-13-96 | 4:49p  |
| MO_EXP.C    | 1,799        | 09-17-96 | 5:10p  |
| MO_HASH.C   | 1,309        | 08-12-96 | 5:12p  |
| MO_HINS.C   | 10,300       | 09-05-96 | 4:16p  |
| MO_HSRCH.C  | 2,446        | 08-13-96 | 2:45p  |
| MO_INIT.C   | 1,902        | 09-16-96 | 4:16p  |
| MO_RDALG.C  | 4,388        | 09-16-96 | 3:02p  |
| MO_RDTLM.C  | 5,018        | 09-16-96 | 4:37p  |
| MO_RDTBL.C  | 5,985        | 10-22-96 | 2:55p  |
| MO_MAIN.C   | 7,737        | 10-22-96 | 11:38a |
| MO_RAMP.C   | 1,852        | 01-17-95 | 1:48p  |
| MO_SIN.C    | 2,050        | 01-17-95 | 1:15p  |
| MO_TBL.C    | 8,238        | 10-24-96 | 2:27p  |
| MO_UPDA.C   | 5,215        | 10-22-96 | 6:12p  |
| MO_ACTIV.C  | 3,533        | 09-17-96 | 4:19p  |
| MO_DSPLY.C  | 1,471        | 10-01-96 | 3:34p  |
| MO_SEND.C   | 6,161        | 10-01-96 | 3:50p  |
| MO_STR.H    | 4,380        | 09-29-96 | 3:32p  |
| MO.H        | 1,900        | 10-01-96 | 2:32p  |
| MO_PROTO.H  | 2,461        | 10-22-96 | 10:57a |
| MO_INCS.H   | 805          | 08-12-96 | 5:11p  |
| MO_DEF.H    | 675          | 08-06-96 | 12:33p |
| COMP_MO.BAT | 440          | 10-01-96 | 2:43p  |
| CF.BAT      | 34           | 09-12-96 | 4:29p  |
| LINK_MO.CMD | 1,251        | 10-01-96 | 2:42p  |
| 30 file(s)  | 98,953 bytes |          |        |

## Directory of B:\MT\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| MT_PARMS.C  | 4,041        | 08-07-96 | 10:40a |
| MT_MAIN.C   | 2,896        | 09-17-96 | 4:07p  |
| MT_CPRRM.C  | 1,356        | 06-12-96 | 11:11a |
| MT_LOC.C    | 7,963        | 04-08-97 | 5:12p  |
| MT_DISC.C   | 4,158        | 07-19-96 | 1:04p  |
| MT_FIND.C   | 1,582        | 06-10-96 | 11:59a |
| MT_HASH.C   | 1,309        | 06-10-96 | 11:59a |
| MT_SET.C    | 6,993        | 04-25-97 | 4:42p  |
| MT_DSPLY.C  | 8,147        | 04-08-97 | 4:48p  |
| MT_SHOW.C   | 3,512        | 06-12-96 | 2:09p  |
| MT CVEUA.C  | 2,068        | 06-21-96 | 2:39p  |
| MT_CVTEU.C  | 2,673        | 06-17-96 | 5:03p  |
| MT_CVTRW.C  | 2,220        | 06-21-96 | 2:40p  |
| MT_PTRTB.C  | 2,415        | 02-06-97 | 4:25p  |
| MT_SETTL.C  | 3,241        | 12-03-96 | 3:47p  |
| MT_IVALU.C  | 2,490        | 12-04-96 | 11:39a |
| MT_UPD.C    | 2,330        | 09-17-96 | 5:11p  |
| MT_GETTL.C  | 6,719        | 04-08-97 | 4:58p  |
| MT_SETAP.C  | 4,892        | 04-03-97 | 3:03p  |
| MT_INCS.H   | 622          | 06-10-96 | 12:05p |
| MT_IPTRT.H  | 666          | 06-12-96 | 11:17a |
| MT_IVALU.H  | 1,617        | 09-20-94 | 11:10a |
| MT_PROTO.H  | 2,455        | 11-07-96 | 11:31a |
| MT.H        | 1,266        | 03-28-95 | 11:53a |
| COMP_MT.BAT | 296          | 09-05-96 | 4:57p  |
| CF.BAT      | 34           | 09-16-96 | 5:19p  |
| LINK_MT.CMD | 1,038        | 10-15-96 | 10:41a |
| 29 file(s)  | 78,999 bytes |          |        |

## Directory of B:\NETWORK

CI 1.4

|              |              |          |        |
|--------------|--------------|----------|--------|
| .            | <DIR>        | 05-05-97 | 9:12a  |
| ..           | <DIR>        | 05-05-97 | 9:12a  |
| UDPT1.C      | 2,382        | 03-22-97 | 12:44p |
| UDPT2.C      | 2,329        | 03-22-97 | 12:45p |
| UDPCMD.C     | 2,203        | 03-22-97 | 12:45p |
| SEND.C       | 3,854        | 03-28-97 | 12:49p |
| CF.BAT       | 30           | 01-14-97 | 1:12a  |
| COMP_NET.BAT | 78           | 09-11-96 | 12:48p |
| SEND.CMD     | 190          | 07-25-96 | 10:17p |
| UDPT1.CMD    | 191          | 08-01-96 | 10:55a |
| UDPT2.CMD    | 191          | 08-15-96 | 12:27a |
| UDPCMD.CMD   | 192          | 07-31-96 | 8:32a  |
| SEND.SY      | 17,356       | 04-30-97 | 1:23p  |
| UDPCMD.SY    | 16,788       | 04-30-97 | 1:23p  |
| UDPT1.SY     | 16,808       | 04-30-97 | 1:23p  |
| UDPT2.SY     | 16,756       | 04-30-97 | 1:24p  |
| 16 file(s)   | 79,348 bytes |          |        |

## Directory of B:\OP\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| OP_ERMSG.C  | 1,718        | 05-10-94 | 2:45p  |
| OP_MMSG.C   | 2,018        | 09-10-93 | 5:40p  |
| OP_MSG.C    | 1,235        | 12-01-93 | 6:12p  |
| OP_NMSG.C   | 1,669        | 09-10-93 | 5:41p  |
| OP_SMSGO.C  | 1,365        | 09-10-93 | 5:42p  |
| OP_SMSG.C   | 4,370        | 07-17-96 | 4:03p  |
| OP_QMGR.C   | 5,612        | 11-16-93 | 12:56p |
| OP_XMIT.C   | 1,658        | 11-04-93 | 4:17p  |
| OP_MAIN.C   | 3,655        | 05-10-94 | 2:45p  |
| OP_DBMSG.C  | 2,233        | 11-04-93 | 4:16p  |
| OP_STATN.C  | 2,969        | 01-24-94 | 12:30p |
| OP_QOPTS.C  | 3,841        | 01-24-94 | 12:32p |
| OP_LROW.C   | 3,708        | 01-14-94 | 2:49p  |
| OP_SROW.C   | 3,596        | 01-14-94 | 2:55p  |
| OP_STATC.C  | 5,804        | 01-24-94 | 12:30p |
| COMP_OP.BAT | 288          | 10-04-96 | 11:03a |
| CF.BAT      | 34           | 10-04-96 | 11:05a |
| LINK_OP.CMD | 962          | 05-29-97 | 4:34p  |
| 20 file(s)  | 46,735 bytes |          |        |

Directory of B:\SC\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| SC_ALOAD.C  | 3,147        | 04-18-97 | 1:33p  |
| SC_INIT.C   | 3,345        | 04-02-97 | 10:23a |
| SC_MAIN.C   | 4,266        | 04-18-97 | 11:44a |
| SC_TNEXT.C  | 2,780        | 04-17-97 | 4:20p  |
| SC_UTILS.C  | 5,750        | 04-28-97 | 3:47p  |
| SC_DOATP.C  | 6,506        | 04-18-97 | 2:34p  |
| SC_RSTRT.C  | 2,102        | 04-18-97 | 10:56a |
| SC_DORTP.C  | 3,577        | 04-28-97 | 4:01p  |
| SC_INIT.H   | 1,118        | 04-02-97 | 10:10a |
| SC.H        | 2,449        | 04-18-97 | 2:19p  |
| SC_PROTO.H  | 914          | 04-02-97 | 9:49a  |
| SC_PKT.H    | 5,793        | 06-04-97 | 2:32p  |
| SC_INCS.H   | 1,029        | 04-03-97 | 1:25p  |
| COMP_SC.BAT | 835          | 04-03-97 | 2:14p  |
| CF.BAT      | 34           | 10-04-96 | 12:34p |
| LINK_SC.CMD | 990          | 04-03-97 | 2:17p  |
| 18 file(s)  | 44,635 bytes |          |        |

Directory of B:\TI\_DIR

CI 1.4

|            |       |          |       |
|------------|-------|----------|-------|
| .          | <DIR> | 05-05-97 | 9:12a |
| ..         | <DIR> | 05-05-97 | 9:12a |
| TI_WRITE.C | 2,004 | 09-27-94 | 4:04p |
| TI_INIT.C  | 5,904 | 07-19-96 | 2:15p |
| TI_ASCTM.C | 2,302 | 10-28-94 | 6:35p |
| TI_WAIT.C  | 1,587 | 09-27-94 | 4:03p |
| TI_SETSL.C | 2,047 | 09-13-93 | 2:55p |

|             |               |          |        |
|-------------|---------------|----------|--------|
| TI_SLEEP.C  | 2,160         | 03-03-94 | 5:26p  |
| TI_SETGM.C  | 2,281         | 07-22-96 | 2:37p  |
| TI_TO_SC.C  | 1,609         | 04-24-95 | 1:34p  |
| TI_GETGM.C  | 1,402         | 09-27-94 | 3:45p  |
| TI_DELAY.C  | 1,034         | 09-27-94 | 3:44p  |
| TI_GETSC.C  | 1,230         | 09-27-94 | 3:47p  |
| TI_SETSC.C  | 2,042         | 09-24-96 | 2:19p  |
| TI_ACCEL.C  | 1,684         | 11-02-94 | 7:00p  |
| LOG_CORR.C  | 814           | 12-29-94 | 2:38p  |
| TI_MAIN.C   | 8,569         | 10-10-96 | 11:34a |
| TI_READ.C   | 6,602         | 04-14-95 | 3:42p  |
| TI_SC_SL.C  | 1,704         | 04-14-95 | 2:57p  |
| TI_TO_YD.C  | 1,843         | 04-12-94 | 4:48p  |
| TI_1HZ.C    | 12,260        | 07-19-96 | 1:47p  |
| TI_SBUTD.C  | 3,124         | 09-27-94 | 3:54p  |
| TI_ADUTD.C  | 3,200         | 07-01-94 | 1:36p  |
| TI_ADDUT.C  | 6,727         | 09-27-94 | 3:33p  |
| TI_CMDS.C   | 8,059         | 04-24-95 | 1:35p  |
| TI_UTILS.C  | 9,384         | 01-13-95 | 4:02p  |
| TI_SUBUT.C  | 5,528         | 06-30-94 | 7:05p  |
| TI_CORR.C   | 6,009         | 01-23-95 | 2:24p  |
| TI_DOCOR.C  | 5,033         | 01-16-95 | 3:57p  |
| TI_NCC.C    | 23,640        | 02-06-95 | 3:34p  |
| TI_334.C    | 9,402         | 08-04-95 | 5:27p  |
| TI_SETNS.C  | 3,385         | 10-11-94 | 5:54p  |
| TI_PB5C.C   | 3,166         | 08-28-96 | 1:40p  |
| TI_INCS.H   | 728           | 08-06-96 | 6:21a  |
| TI_STR.H    | 1,855         | 01-05-96 | 1:16p  |
| TI.H        | 7,248         | 08-06-96 | 6:20a  |
| TI_INIT.H   | 2,458         | 12-30-94 | 11:50a |
| TI_PROTO.H  | 3,744         | 02-06-95 | 3:19p  |
| DEMO.H      | 2,556         | 01-17-95 | 2:53p  |
| TI_334.H    | 3,034         | 08-04-95 | 5:23p  |
| TI_PKT.H    | 8,880         | 07-01-94 | 1:15p  |
| TI_NCC.H    | 2,526         | 01-04-95 | 12:05p |
| COMP_TI.BAT | 547           | 09-09-96 | 3:53p  |
| CF.BAT      | 34            | 10-04-96 | 11:13a |
| BIL.BAT     | 36            | 10-04-96 | 2:28p  |
| LINK_TI.CMD | 1,238         | 08-06-96 | 6:04a  |
| 46 file(s)  | 180,619 bytes |          |        |

Directory of B:\UT\_DIR

CI 1.4

|             |              |          |        |
|-------------|--------------|----------|--------|
| .           | <DIR>        | 05-05-97 | 9:12a  |
| ..          | <DIR>        | 05-05-97 | 9:12a  |
| UT_GET.C    | 3,156        | 10-05-94 | 8:48p  |
| FQ2.C       | 4,251        | 06-18-96 | 4:05p  |
| FQ2.H       | 3,942        | 06-18-96 | 2:33p  |
| COMP_UT.BAT | 31           | 01-13-97 | 11:07p |
| 6 file(s)   | 11,380 bytes |          |        |

Total files listed:

287 file(s) 905,654 bytes  
473,088 bytes free

MPS Release 1.2.0, MVME177 Executable Software (Floppy Disk 3 of 4), 6/6/97

Volume in drive B has no label

Directory of B:\ CI 1.4

|             |              |          |       |
|-------------|--------------|----------|-------|
| BLD1_2      | <DIR>        | 05-01-97 | 3:17p |
| PKUNZIP.EXE | 29,378       | 02-01-93 | 2:04a |
| 2 file(s)   | 29,378 bytes |          |       |

Directory of B:\BLD1\_2 CI 1.4

|           |          |          |       |
|-----------|----------|----------|-------|
| .         | <DIR>    | 05-01-97 | 3:17p |
| ..        | <DIR>    | 05-01-97 | 3:17p |
| ACPT      | <DIR>    | 05-01-97 | 3:17p |
| RUNACPT   | 50       | 05-01-97 | 3:21p |
| CLEAR     | 21       | 05-01-97 | 3:21p |
| 5 file(s) | 71 bytes |          |       |

Directory of B:\BLD1\_2\ACPT CI 1.4

|            |               |          |        |
|------------|---------------|----------|--------|
| .          | <DIR>         | 05-01-97 | 3:17p  |
| ..         | <DIR>         | 05-01-97 | 3:17p  |
| XXT        | 30,528        | 05-01-97 | 3:28p  |
| XGT        | 18,604        | 05-01-97 | 3:28p  |
| XTO        | 37,204        | 05-01-97 | 3:28p  |
| XTY        | 30,404        | 05-01-97 | 3:28p  |
| XOP        | 18,736        | 05-01-97 | 3:29p  |
| XTI        | 37,206        | 05-01-97 | 3:29p  |
| XMT        | 23,392        | 05-01-97 | 3:29p  |
| XMC        | 24,136        | 05-01-97 | 3:29p  |
| XSC        | 20,204        | 06-04-97 | 2:34p  |
| XDI        | 17,672        | 05-01-97 | 3:29p  |
| XMO        | 29,330        | 05-01-97 | 3:29p  |
| XSM        | 28,132        | 05-30-97 | 10:00a |
| XIN        | 16,184        | 05-01-97 | 3:30p  |
| XDS        | 20,968        | 05-01-97 | 3:30p  |
| XCI        | 35,010        | 05-01-97 | 3:30p  |
| XAD        | 16,476        | 05-01-97 | 3:30p  |
| UDPT1.SY   | 16,808        | 05-01-97 | 3:30p  |
| UDPT2.SY   | 16,756        | 05-01-97 | 3:30p  |
| UDPCMD.SY  | 16,788        | 05-01-97 | 3:30p  |
| SEND.SY    | 17,356        | 05-01-97 | 3:31p  |
| AC.BKP     | 1,084         | 05-01-97 | 3:31p  |
| 23 file(s) | 472,978 bytes |          |        |

Total files listed:

30 file(s) 502,427 bytes  
947,712 bytes free

MPS Release 1.2.0, MVME177 Data Base Files (Floppy Disk 4 of 4), 6/6/97

Volume in drive B has no label

Directory of B:\ CI 1.6

|              |               |          |       |
|--------------|---------------|----------|-------|
| PDBVER12.ZIP | 694,650       | 06-04-97 | 1:53p |
| 1 file(s)    | 694,650 bytes |          |       |

Total files listed:

|           |                    |
|-----------|--------------------|
| 1 file(s) | 694,650 bytes      |
|           | 762,880 bytes free |

### MPS Release 1.2.0, MVME187 Source Software (4 mm tape), 6/6/97

|           |       |                  |                                  |        |
|-----------|-------|------------------|----------------------------------|--------|
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./                               |        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./INSTALL/                       | CI 1.3 |
| r-xr--r-- | 4633  | May 5 09:24 1997 | ./INSTALL/ets_build              |        |
| r--r--r-- | 1656  | May 5 09:24 1997 | ./INSTALL/ets_build_procedure    |        |
| r-xr--r-- | 13571 | May 5 09:24 1997 | ./INSTALL/ets_deliver            |        |
| r--r--r-- | 1235  | May 5 09:24 1997 | ./INSTALL/ets_delivery_procedure |        |
| r-xr--r-- | 8341  | May 5 09:24 1997 | ./INSTALL/ets_install            |        |
| r-xr--r-- | 5729  | May 5 09:24 1997 | ./INSTALL/ets_mkdir              |        |
| r-xr--r-- | 5975  | May 5 09:24 1997 | ./INSTALL/ets_setup              |        |
| r-xr--r-- | 8341  | May 5 09:24 1997 | ./ets_install                    |        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./include/                       | CI 1.3 |
| r--r--r-- | 1120  | May 5 09:24 1997 | ./include/ETSCComboBox.h         |        |
| r--r--r-- | 2057  | May 5 09:24 1997 | ./include/ETSCountForm.h         |        |
| r--r--r-- | 1440  | May 5 09:24 1997 | ./include/ETSSpinner.h           |        |
| r--r--r-- | 1467  | May 5 09:24 1997 | ./include/ETSSpinner2.h          |        |
| r--r--r-- | 1553  | May 5 09:24 1997 | ./include/ansi_setup.h           |        |
| r--r--r-- | 2609  | May 5 09:24 1997 | ./include/cau.h                  |        |
| r--r--r-- | 2221  | May 5 09:24 1997 | ./include/cobl_util.h            |        |
| r--r--r-- | 1457  | May 5 09:24 1997 | ./include/crlf_util.h            |        |
| r--r--r-- | 896   | May 5 09:24 1997 | ./include/cuw.h                  |        |
| r--r--r-- | 1137  | May 5 09:24 1997 | ./include/dae_util.h             |        |
| r-xr-xr-x | 1933  | May 5 09:24 1997 | ./include/dct.h                  |        |
| r--r--r-- | 7794  | May 5 09:24 1997 | ./include/dct_crstuff.h          |        |
| r--r--r-- | 1480  | May 5 09:24 1997 | ./include/dct_packet.h           |        |
| r--r--r-- | 1111  | May 5 09:24 1997 | ./include/dct_status.h           |        |
| r--r--r-- | 1403  | May 5 09:24 1997 | ./include/dct_utils.h            |        |
| r--r--r-- | 5952  | May 5 09:24 1997 | ./include/dct_verify.h           |        |
| r--r--r-- | 2058  | May 5 09:24 1997 | ./include/drs_util.h             |        |
| r--r--r-- | 1888  | May 5 09:24 1997 | ./include/dui.h                  |        |
| r--r--r-- | 1411  | May 5 09:24 1997 | ./include/duw.h                  |        |
| r-xr-xr-x | 1990  | May 5 09:24 1997 | ./include/dvt.h                  |        |
| r--r--r-- | 7942  | May 5 09:24 1997 | ./include/dvt_crstuff.h          |        |
| r--r--r-- | 1417  | May 5 09:24 1997 | ./include/dvt_packet.h           |        |
| r--r--r-- | 1251  | May 5 09:24 1997 | ./include/dvt_status.h           |        |
| r--r--r-- | 1340  | May 5 09:24 1997 | ./include/dvt_utils.h            |        |
| r--r--r-- | 5568  | May 5 09:24 1997 | ./include/dvt_verify.h           |        |
| r--r--r-- | 1087  | May 5 09:24 1997 | ./include/environ.h              |        |
| r--r--r-- | 2685  | May 5 09:24 1997 | ./include/ets.h                  |        |
| r--r--r-- | 2395  | May 5 09:24 1997 | ./include/fnm_util.h             |        |
| r--r--r-- | 2011  | May 5 09:24 1997 | ./include/gen.h                  |        |

|           |       |                  |                                    |
|-----------|-------|------------------|------------------------------------|
| r--r--r-- | 1555  | May 5 09:24 1997 | ./include/get_util.h               |
| r--r--r-- | 3034  | May 5 09:24 1997 | ./include/gui.h                    |
| r--r--r-- | 2461  | May 5 09:24 1997 | ./include/hash_util.h              |
| r--r--r-- | 3373  | May 5 09:24 1997 | ./include/ipc_ets.h                |
| r--r--r-- | 2936  | May 5 09:24 1997 | ./include/fn_util.h                |
| r--r--r-- | 33680 | May 5 09:24 1997 | ./include/longlong.h               |
| r--r--r-- | 3342  | May 5 09:24 1997 | ./include/meds.h                   |
| r--r--r-- | 1870  | May 5 09:24 1997 | ./include/medshdr.h                |
| r--r--r-- | 1226  | May 5 09:24 1997 | ./include/medstype.h               |
| r--r--r-- | 839   | May 5 09:24 1997 | ./include/medsver.h                |
| r--r--r-- | 2989  | May 5 09:24 1997 | ./include/meo_util.h               |
| r--r--r-- | 2645  | May 5 09:24 1997 | ./include/mist_util.h              |
| r--r--r-- | 3998  | May 5 09:24 1997 | ./include/mmc.h                    |
| r--r--r-- | 13493 | May 5 09:24 1997 | ./include/mps.h                    |
| r--r--r-- | 874   | May 5 09:24 1997 | ./include/muc_scenario.h           |
| r--r--r-- | 5162  | May 5 09:24 1997 | ./include/mui.h                    |
| r--r--r-- | 467   | May 5 09:24 1997 | ./include/mui_scenario_constants.h |
| r--r--r-- | 6550  | May 5 09:24 1997 | ./include/muw.h                    |
| r--r--r-- | 1419  | May 5 09:24 1997 | ./include/net_util.h               |
| r--r--r-- | 3797  | May 5 09:24 1997 | ./include/nft_proc.h               |
| r--r--r-- | 4973  | May 5 09:24 1997 | ./include/nft_util.h               |
| r--r--r-- | 4432  | May 5 09:24 1997 | ./include/nix_util.h               |
| r--r--r-- | 1646  | May 5 09:24 1997 | ./include/om_acc_noti_struct.h     |
| r--r--r-- | 12682 | May 5 09:24 1997 | ./include/om_coda_struct.h         |
| r--r--r-- | 1555  | May 5 09:24 1997 | ./include/om_counter_struct.h      |
| r--r--r-- | 1303  | May 5 09:24 1997 | ./include/om_dlg.h                 |
| r--r--r-- | 4311  | May 5 09:24 1997 | ./include/om_eds_pds_struct.h      |
| r--r--r-- | 1040  | May 5 09:24 1997 | ./include/om_hrs_data_struct.h     |
| r--r--r-- | 513   | May 5 09:24 1997 | ./include/om_hrs_names.h           |
| r--r--r-- | 2252  | May 5 09:24 1997 | ./include/om_lrs_data_struct.h     |
| r--r--r-- | 7292  | May 5 09:24 1997 | ./include/om_lrs_names.h           |
| r--r--r-- | 855   | May 5 09:24 1997 | ./include/om_pb_5_struct.h         |
| r--r--r-- | 8227  | May 5 09:24 1997 | ./include/om_tss_struct.h          |
| r--r--r-- | 5548  | May 5 09:24 1997 | ./include/omd.h                    |
| r--r--r-- | 2847  | May 5 09:24 1997 | ./include/omd_struct.h             |
| r--r--r-- | 2915  | May 5 09:24 1997 | ./include/opt_util.h               |
| r--r--r-- | 5635  | May 5 09:24 1997 | ./include/oui.h                    |
| r--r--r-- | 2536  | May 5 09:24 1997 | ./include/ouw.h                    |
| r--r--r-- | 861   | May 5 09:24 1997 | ./include/quad_struct.h            |
| r--r--r-- | 3023  | May 5 09:24 1997 | ./include/rbu.h                    |
| r--r--r-- | 11511 | May 5 09:24 1997 | ./include/rex_internals.h          |
| r--r--r-- | 2619  | May 5 09:24 1997 | ./include/rex_util.h               |
| r--r--r-- | 952   | May 5 09:24 1997 | ./include/ruw.h                    |
| r--r--r-- | 1692  | May 5 09:24 1997 | ./include/skt_util.h               |
| r--r--r-- | 2950  | May 5 09:24 1997 | ./include/stan_util.h              |
| r--r--r-- | 3351  | May 5 09:24 1997 | ./include/str_util.h               |
| r--r--r-x | 3181  | May 5 09:24 1997 | ./include/tcp_util.h               |
| r--r--r-- | 2263  | May 5 09:24 1997 | ./include/ts_util.h                |
| r--r--r-- | 1367  | May 5 09:24 1997 | ./include/tss_id_struct.h          |
| r--r--r-- | 2086  | May 5 09:24 1997 | ./include/tv_util.h                |
| r--r--r-- | 2779  | May 5 09:24 1997 | ./include/udp_util.h               |
| r--r--r-- | 1770  | May 5 09:24 1997 | ./include/vperror.h                |
| r--r--r-- | 1818  | May 5 09:24 1997 | ./include/vui.h                    |
| r--r--r-- | 1300  | May 5 09:24 1997 | ./include/vuw.h                    |

|           |       |                  |                                    |        |
|-----------|-------|------------------|------------------------------------|--------|
| r--r--r-- | 2947  | May 5 09:24 1997 | ./include/xnet_util.h              |        |
| r-xr-xr-x | 5541  | May 5 09:24 1997 | ./include/xxx_TransEnv.h           |        |
| r-xr-xr-x | 5434  | May 5 09:24 1997 | ./include/xxx_Types.h              |        |
| r-xr-xr-x | 12602 | May 5 09:24 1997 | ./include/xxx_db_Defs.h            |        |
| r-xr-xr-x | 2586  | May 5 09:24 1997 | ./include/xxx_ipc.h                |        |
| r-xr-xr-x | 4559  | May 5 09:24 1997 | ./include/xxx_network.h            |        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./lib/                             | CI 1.3 |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./lib/gui/                         |        |
| r--r--r-- | 8268  | May 5 09:24 1997 | ./lib/gui/ETSCComboBox.c           |        |
| r--r--r-- | 3965  | May 5 09:24 1997 | ./lib/gui/ETSCComboBox.uil         |        |
| r--r--r-- | 17070 | May 5 09:24 1997 | ./lib/gui/ETSCountForm.c           |        |
| r--r--r-- | 8188  | May 5 09:24 1997 | ./lib/gui/ETSCountForm.uil         |        |
| r--r--r-- | 9596  | May 5 09:24 1997 | ./lib/gui/ETSSpinner.c             |        |
| r--r--r-- | 4196  | May 5 09:24 1997 | ./lib/gui/ETSSpinner.uil           |        |
| r--r--r-- | 10091 | May 5 09:24 1997 | ./lib/gui/ETSSpinner2.c            |        |
| r--r--r-- | 4543  | May 5 09:24 1997 | ./lib/gui/ETSSpinner2.uil          |        |
| r--r--r-- | 1020  | May 5 09:24 1997 | ./lib/gui/ets_widget.mk            |        |
| r--r--r-- | 1110  | May 5 09:24 1997 | ./lib/gui/ets_widget_vme.mk        |        |
| r--r--r-- | 1651  | May 5 09:24 1997 | ./lib/gui/guc_class.c              |        |
| r--r--r-- | 5584  | May 5 09:24 1997 | ./lib/gui/guc_combo_box_funcs.c    |        |
| r--r--r-- | 4333  | May 5 09:24 1997 | ./lib/gui/guc_count_funcs.c        |        |
| r--r--r-- | 12703 | May 5 09:25 1997 | ./lib/gui/guc_help_funcs.c         |        |
| r--r--r-- | 4071  | May 5 09:25 1997 | ./lib/gui/guc_hex_modify_verify.c  |        |
| r--r--r-- | 4821  | May 5 09:25 1997 | ./lib/gui/guc_int_check_range.c    |        |
| r--r--r-- | 4967  | May 5 09:25 1997 | ./lib/gui/guc_int_modify_verify.c  |        |
| r--r--r-- | 7103  | May 5 09:25 1997 | ./lib/gui/guc_int_spin_funcs.c     |        |
| r--r--r-- | 5103  | May 5 09:25 1997 | ./lib/gui/guc_oct_modify_verify.c  |        |
| r--r--r-- | 1857  | May 5 09:25 1997 | ./lib/gui/guc_toupper.c            |        |
| r--r--r-- | 9757  | May 5 09:25 1997 | ./lib/gui/guf_ask_user_funcs.c     |        |
| r--r--r-- | 3081  | May 5 09:25 1997 | ./lib/gui/guf_busy_cursor_funcs.c  |        |
| r--r--r-- | 14008 | May 5 09:25 1997 | ./lib/gui/guf_log_funcs.c          |        |
| r--r--r-- | 7363  | May 5 09:25 1997 | ./lib/gui/guf_popup_file_sel_box.c |        |
| r--r--r-- | 6194  | May 5 09:25 1997 | ./lib/gui/guf_popup_message_box.c  |        |
| r--r--r-- | 6571  | May 5 09:25 1997 | ./lib/gui/guf_popup_prompt_box.c   |        |
| r--r--r-- | 2246  | May 5 09:25 1997 | ./lib/gui/gui.mk                   |        |
| r--r--r-- | 2064  | May 5 09:25 1997 | ./lib/gui/gui_vme.mk               |        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./lib/gen/                         |        |
| r--r--r-- | 1096  | May 5 09:25 1997 | ./lib/gen/gen.mk                   |        |
| r--r--r-- | 1119  | May 5 09:25 1997 | ./lib/gen/gen_vme.mk               |        |
| r--r--r-- | 5265  | May 5 09:25 1997 | ./lib/gen/gnf_get_current_time.c   |        |
| r--r--r-- | 9517  | May 5 09:25 1997 | ./lib/gen/gnf_pb5_time_funcs.c     |        |
| r--r--r-- | 6799  | May 5 09:25 1997 | ./lib/gen/gnf_separate_lines.c     |        |
| r-xr-xr-x | 4743  | May 5 09:24 1997 | ./lib/build_lib                    |        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./lib/ipc/                         |        |
| r--r--r-- | 1805  | May 5 09:25 1997 | ./lib/ipc/ipc.mk                   |        |
| r--r--r-- | 3302  | May 5 09:25 1997 | ./lib/ipc/ipc_client_socket.c      |        |
| r--r--r-- | 12181 | May 5 09:25 1997 | ./lib/ipc/ipc_fifo_funcs.c         |        |
| r--r--r-- | 3587  | May 5 09:25 1997 | ./lib/ipc/ipc_server_socket.c      |        |
| r--r--r-- | 1537  | May 5 09:25 1997 | ./lib/ipc/ipc_vme.mk               |        |
| r-xr-xr-x | 8057  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_accept.c         |        |
| r-xr-xr-x | 14165 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_client.c         |        |
| r-xr-xr-x | 4213  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_close.c          |        |
| r-xr-xr-x | 2910  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_clr.c            |        |
| r-xr-xr-x | 3430  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_isset.c          |        |

|           |       |                  |                            |
|-----------|-------|------------------|----------------------------|
| r-xr-xr-x | 11628 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_read.c   |
| r-xr-xr-x | 12001 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_read1.c  |
| r-xr-xr-x | 9494  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_rsdb.c   |
| r-xr-xr-x | 5805  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_select.c |
| r-xr-xr-x | 16393 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_server.c |
| r-xr-xr-x | 2899  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_set.c    |
| r-xr-xr-x | 13268 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_write.c  |
| r-xr-xr-x | 13432 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_write1.c |
| r-xr-xr-x | 12143 | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_write2.c |
| r-xr-xr-x | 2992  | May 5 09:25 1997 | ./lib/ipc/xxx_ipc_zero.c   |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./lib/net/                 |
| r--r--r-- | 2522  | May 5 09:25 1997 | ./lib/net/clientLFN.c      |
| r--r--r-- | 2776  | May 5 09:25 1997 | ./lib/net/clientSTAN.c     |
| r--r--r-- | 2260  | May 5 09:25 1997 | ./lib/net/clientTCP.c      |
| r--r--r-- | 2622  | May 5 09:25 1997 | ./lib/net/clientUDP.c      |
| r--r--r-- | 2368  | May 5 09:25 1997 | ./lib/net/clientXNET.c     |
| r--r--r-- | 15063 | May 5 09:25 1997 | ./lib/net/cobl_util.c      |
| r--r--r-- | 11368 | May 5 09:25 1997 | ./lib/net/crlf_util.c      |
| r--r--r-- | 4834  | May 5 09:25 1997 | ./lib/net/dae_util.c       |
| r--r--r-- | 18262 | May 5 09:25 1997 | ./lib/net/drs_util.c       |
| r--r--r-- | 32923 | May 5 09:25 1997 | ./lib/net/fnm_util.c       |
| r--r--r-- | 2580  | May 5 09:25 1997 | ./lib/net/ftpd.c           |
| r--r--r-- | 16780 | May 5 09:25 1997 | ./lib/net/get_util.c       |
| r--r--r-- | 26798 | May 5 09:25 1997 | ./lib/net/hash_util.c      |
| r--r--r-- | 34409 | May 5 09:25 1997 | ./lib/net/lfn_util.c       |
| r--r--r-- | 3271  | May 5 09:25 1997 | ./lib/net/libnet.mk        |
| r--r--r-- | 20353 | May 5 09:25 1997 | ./lib/net/meo_util.c       |
| r--r--r-- | 26295 | May 5 09:25 1997 | ./lib/net/mist_util.c      |
| r--r--r-- | 15705 | May 5 09:25 1997 | ./lib/net/net_util.c       |
| r--r--r-- | 43592 | May 5 09:25 1997 | ./lib/net/nft_proc.c       |
| r--r--r-- | 67555 | May 5 09:25 1997 | ./lib/net/nft_util.c       |
| r--r--r-- | 50202 | May 5 09:25 1997 | ./lib/net/nix_util.c       |
| r--r--r-- | 54782 | May 5 09:25 1997 | ./lib/net/opt_util.c       |
| r--r--r-- | 7111  | May 5 09:25 1997 | ./lib/net/rdate.c          |
| r--r--r-- | 63132 | May 5 09:25 1997 | ./lib/net/rex_util.c       |
| r--r--r-- | 59987 | May 5 09:25 1997 | ./lib/net/rex_util_y.c     |
| r--r--r-- | 43088 | May 5 09:25 1997 | ./lib/net/rex_util_y.y     |
| r--r--r-- | 2252  | May 5 09:25 1997 | ./lib/net/serverLFN.c      |
| r--r--r-- | 2462  | May 5 09:25 1997 | ./lib/net/serverSTAN.c     |
| r--r--r-- | 2080  | May 5 09:25 1997 | ./lib/net/serverTCP.c      |
| r--r--r-- | 2096  | May 5 09:25 1997 | ./lib/net/serverUDP.c      |
| r--r--r-- | 2268  | May 5 09:25 1997 | ./lib/net/serverXNET.c     |
| r--r--r-- | 14706 | May 5 09:25 1997 | ./lib/net/skt_util.c       |
| r--r--r-- | 35185 | May 5 09:25 1997 | ./lib/net/stan_util.c      |
| r--r--r-- | 35955 | May 5 09:25 1997 | ./lib/net/str_util.c       |
| r--r--r-- | 20584 | May 5 09:25 1997 | ./lib/net/talknet.c        |
| r--r--r-- | 53336 | May 5 09:25 1997 | ./lib/net/tcp_util.c       |
| r--r--r-- | 14277 | May 5 09:25 1997 | ./lib/net/ts_util.c        |
| r--r--r-- | 14573 | May 5 09:25 1997 | ./lib/net/tv_util.c        |
| r--r--r-- | 35182 | May 5 09:25 1997 | ./lib/net/udp_util.c       |
| r--r--r-- | 6099  | May 5 09:25 1997 | ./lib/net/vperror.c        |
| r--r--r-- | 40808 | May 5 09:25 1997 | ./lib/net/xnet_util.c      |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./mc/                      |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./mc/mc_ui/                |

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|           |       |                  |                                 |
|-----------|-------|------------------|---------------------------------|
| r-xr-xr-x | 90837 | May 5 09:25 1997 | ./mc/mc_ui/bxutil-c.c           |
| r--r--r-- | 3060  | May 5 09:25 1997 | ./mc/mc_ui/mmc.mk               |
| r--r--r-- | 4542  | May 5 09:25 1997 | ./mc/mc_ui/mmc_close.c          |
| r--r--r-- | 5463  | May 5 09:25 1997 | ./mc/mc_ui/mmc_icon_callback.c  |
| r--r--r-- | 3722  | May 5 09:25 1997 | ./mc/mc_ui/mmc_init_icon.c      |
| r--r--r-- | 10074 | May 5 09:25 1997 | ./mc/mc_ui/mmc_init_tabl.c      |
| r-xr-xr-x | 6810  | May 5 09:25 1997 | ./mc/mc_ui/mmc_main.c           |
| r--r--r-- | 2670  | May 5 09:25 1997 | ./mc/mc_ui/mmc_mps.mk           |
| r--r--r-- | 4375  | May 5 09:25 1997 | ./mc/mc_ui/mmc_popup_error.c    |
| r-xr-xr-x | 12398 | May 5 09:25 1997 | ./mc/build_mc                   |
| r-xr-xr-x | 1249  | May 5 09:25 1997 | ./mc/mmc_hrs_dct_start.csh      |
| r-xr-xr-x | 1519  | May 5 09:25 1997 | ./mc/mmc_hrs_dct_stop.csh       |
| r-xr-xr-x | 1258  | May 5 09:25 1997 | ./mc/mmc_hrs_dvt_start.csh      |
| r-xr-xr-x | 1498  | May 5 09:25 1997 | ./mc/mmc_hrs_dvt_stop.csh       |
| r-xr-xr-x | 1127  | May 5 09:25 1997 | ./mc/mmc_hrs_omd_start.csh      |
| r-xr-xr-x | 1359  | May 5 09:25 1997 | ./mc/mmc_hrs_omd_stop.csh       |
| r-xr-xr-x | 1724  | May 5 09:25 1997 | ./mc/mmc_hrs_sctgen_start.csh   |
| r-xr-xr-x | 1702  | May 5 09:25 1997 | ./mc/mmc_hrs_sctgen_stop.csh    |
| r-xr-xr-x | 1546  | May 5 09:25 1997 | ./mc/mmc_hrs_tpce_start.csh     |
| r-xr-xr-x | 1845  | May 5 09:25 1997 | ./mc/mmc_hrs_tpce_stop.csh      |
| r-xr-xr-x | 2215  | May 5 09:25 1997 | ./mc/mmc_kill_processes.ksh     |
| r--r--r-- | 1443  | May 5 09:25 1997 | ./mc/mmc_lrs_icon_file          |
| r-xr-xr-x | 1137  | May 5 09:25 1997 | ./mc/mmc_lrs_omd_start.csh      |
| r-xr-xr-x | 1358  | May 5 09:25 1997 | ./mc/mmc_lrs_omd_stop.csh       |
| r-xr-xr-x | 3905  | May 5 09:25 1997 | ./mc/mmc_lrs_tpce_start.csh     |
| r-xr-xr-x | 1883  | May 5 09:25 1997 | ./mc/mmc_lrs_tpce_stop.csh      |
| r-xr-xr-x | 984   | May 5 09:25 1997 | ./mc/mmc_mps_exec_start.csh     |
| r-xr-xr-x | 1327  | May 5 09:25 1997 | ./mc/mmc_mps_exec_stop.csh      |
| r--r--r-- | 1943  | May 5 09:25 1997 | ./mc/mmc_mps_icon_file          |
| r-xr-xr-x | 1007  | May 5 09:25 1997 | ./mc/mmc_mps_omd_start.csh      |
| r-xr-xr-x | 1367  | May 5 09:25 1997 | ./mc/mmc_mps_omd_stop.csh       |
| r-xr-xr-x | 1121  | May 5 09:25 1997 | ./mc/mmc_mps_pdb_start.csh      |
| r-xr-xr-x | 1325  | May 5 09:25 1997 | ./mc/mmc_mps_pdb_stop.csh       |
| r--r--r-- | 2964  | May 5 09:25 1997 | ./mc/mmc_sample_icon_file       |
| r-xr-xr-x | 1941  | May 5 09:25 1997 | ./mc/mmc_start_stop_process.csh |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/                       |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_de/                 |
| r--r--r-- | 6482  | May 5 09:25 1997 | ./omdsim/om_de/om_delog.c       |
| r--r--r-- | 1845  | May 5 09:25 1997 | ./omdsim/om_de/om_delog.mk      |
| r--r--r-- | 1559  | May 5 09:25 1997 | ./omdsim/om_de/om_delog_vme.mk  |
| r--r--r-- | 19693 | May 5 09:25 1997 | ./omdsim/om_de/om_dlg_coda.c    |
| r--r--r-- | 12336 | May 5 09:25 1997 | ./omdsim/om_de/om_dlg_eds_pds.c |
| r--r--r-- | 3858  | May 5 09:25 1997 | ./omdsim/om_de/om_dlg_hdr.c     |
| r--r--r-- | 17797 | May 5 09:25 1997 | ./omdsim/om_de/om_dlg_scs.c     |
| r--r--r-- | 7502  | May 5 09:25 1997 | ./omdsim/om_de/om_get_flg.c     |
| r--r--r-- | 2960  | May 5 09:25 1997 | ./omdsim/om_de/om_unpk_pb5.c    |
| r--r--r-- | 1280  | May 5 09:25 1997 | ./omdsim/om_de/om_unpk_vcid.c   |
| r-xr-xr-x | 10439 | May 5 09:25 1997 | ./omdsim/build_omdsim           |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_lo/                 |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_re/                 |
| r--r--r-- | 1520  | May 5 09:25 1997 | ./omdsim/om_re/hear.mk          |
| r--r--r-- | 2003  | May 5 09:25 1997 | ./omdsim/om_re/om_re.mk         |
| r--r--r-- | 1655  | May 5 09:25 1997 | ./omdsim/om_re/om_re_vme.mk     |
| r--r--r-- | 7285  | May 5 09:25 1997 | ./omdsim/om_re/om_rec_sub.c     |

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|-----------|-------|------------------|---|
| r--r--r-- | 1573  | May 5 09:25 1997 | ./omdsim/om_re/om_rec_sub.mk              |
| r--r--r-- | 903   | May 5 09:25 1997 | ./omdsim/om_re/om_rec_sub_vme.mk          |
| r--r--r-- | 5506  | May 5 09:25 1997 | ./omdsim/om_re/om_receiver.c              |
| r--r--r-- | 5260  | May 5 09:25 1997 | ./omdsim/om_re/om_receiver_stub.c         |
| r--r--r-- | 2645  | May 5 09:25 1997 | ./omdsim/om_re/xmitter.c                  |
| r--r--r-- | 1383  | May 5 09:25 1997 | ./omdsim/om_re/xmitter.mk                 |
| r--r--r-- | 2953  | May 5 09:25 1997 | ./omdsim/om_re/xmitter_sub.c              |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_sc/                           |
| r--r--r-- | 2125  | May 5 09:25 1997 | ./omdsim/om_sc/delog.c                    |
| r--r--r-- | 1127  | May 5 09:25 1997 | ./omdsim/om_sc/delog.mk                   |
| r--r--r-- | 15597 | May 5 09:25 1997 | ./omdsim/om_sc/dlg_coda.c                 |
| r--r--r-- | 1936  | May 5 09:25 1997 | ./omdsim/om_sc/dlg_hdr.c                  |
| r--r--r-- | 5645  | May 5 09:25 1997 | ./omdsim/om_sc/get_flg.c                  |
| r--r--r-- | 2211  | May 5 09:25 1997 | ./omdsim/om_sc/om_sc.mk                   |
| r--r--r-- | 7246  | May 5 09:25 1997 | ./omdsim/om_sc/om_sc_exec.c               |
| r--r--r-- | 436   | May 5 09:25 1997 | ./omdsim/om_sc/om_sc_init.c               |
| r--r--r-- | 1908  | May 5 09:25 1997 | ./omdsim/om_sc/om_sc_vme.mk               |
| r--r--r-- | 2348  | May 5 09:25 1997 | ./omdsim/om_sc/om_scheduler.c             |
| r--r--r-- | 7237  | May 5 09:25 1997 | ./omdsim/om_sc/om_scheduler_stub.c        |
| r--r--r-- | 10219 | May 5 09:25 1997 | ./omdsim/om_sc/om_scheduler_sub.c         |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_sm/                           |
| r--r--r-- | 10539 | May 5 09:25 1997 | ./omdsim/om_sm/om_scenario_manager.c      |
| r--r--r-- | 4516  | May 5 09:25 1997 | ./omdsim/om_sm/om_scenario_manager_stub.c |
| r--r--r-- | 4613  | May 5 09:25 1997 | ./omdsim/om_sm/om_scenario_sub.c          |
| r--r--r-- | 2237  | May 5 09:25 1997 | ./omdsim/om_sm/om_sm.mk                   |
| r--r--r-- | 4123  | May 5 09:25 1997 | ./omdsim/om_sm/om_sm_initialize.c         |
| r--r--r-- | 1007  | May 5 09:25 1997 | ./omdsim/om_sm/om_sm_trans.c              |
| r--r--r-- | 1938  | May 5 09:25 1997 | ./omdsim/om_sm/om_sm_vme.mk               |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_tr/                           |
| r--r--r-- | 2571  | May 5 09:25 1997 | ./omdsim/om_tr/om_agg_lngth.c             |
| r--r--r-- | 8522  | May 5 09:25 1997 | ./omdsim/om_tr/om_apid_table.c            |
| r--r--r-- | 5273  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_byte.c             |
| r--r--r-- | 7590  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_coda.c             |
| r--r--r-- | 8585  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_coda2.c            |
| r--r--r-- | 7199  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_epds.c             |
| r--r--r-- | 2655  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_rlsb.c             |
| r--r--r-- | 2627  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_hdr.c              |
| r--r--r-- | 3431  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_pb5.c              |
| r--r--r-- | 4704  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_rlsb.c             |
| r--r--r-- | 6953  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_ses.c              |
| r--r--r-- | 3714  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_tss.c              |
| r--r--r-- | 3023  | May 5 09:25 1997 | ./omdsim/om_tr/om_cnvt_vcdu.c             |
| r--r--r-- | 1778  | May 5 09:25 1997 | ./omdsim/om_tr/om_get_epds_name.c         |
| r--r--r-- | 11813 | May 5 09:25 1997 | ./omdsim/om_tr/om_get_external.c          |
| r--r--r-- | 776   | May 5 09:25 1997 | ./omdsim/om_tr/om_get_signal.c            |
| r--r--r-- | 3660  | May 5 09:25 1997 | ./omdsim/om_tr/om_gmt.c                   |
| r--r--r-- | 6264  | May 5 09:25 1997 | ./omdsim/om_tr/om_hrs_epds_values.c       |
| r--r--r-- | 17806 | May 5 09:25 1997 | ./omdsim/om_tr/om_lrs_coda_values.c       |
| r--r--r-- | 12944 | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_epds.c            |
| r--r--r-- | 3320  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_ccsds.c       |
| r--r--r-- | 1527  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_comm.c        |
| r--r--r-- | 3937  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_flsb.c        |
| r--r--r-- | 1938  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_hdr.c         |
| r--r--r-- | 4784  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_rlsb_gtpp.c   |

|           |       |                  |  |
|-----------|-------|------------------|--|
| r--r--r-- | 4334  | May 5 09:25 1997 | ./omdsim/om_tr/om_merge_scs_rlsb_vcid.c    |
| r--r--r-- | 1466  | May 5 09:25 1997 | ./omdsim/om_tr/om_open_tcp_client.c        |
| r--r--r-- | 9046  | May 5 09:25 1997 | ./omdsim/om_tr/om_save_coda.c              |
| r--r--r-- | 3194  | May 5 09:25 1997 | ./omdsim/om_tr/om_send_ext.c               |
| r--r--r-- | 862   | May 5 09:25 1997 | ./omdsim/om_tr/om_send_ftp.c               |
| r--r--r-- | 4827  | May 5 09:25 1997 | ./omdsim/om_tr/om_tr.mk                    |
| r--r--r-- | 6100  | May 5 09:25 1997 | ./omdsim/om_tr/om_tr_HRS.mk                |
| r--r--r-- | 2146  | May 5 09:25 1997 | ./omdsim/om_tr/om_tr_init.c                |
| r--r--r-- | 4521  | May 5 09:25 1997 | ./omdsim/om_tr/om_tr_vme.mk                |
| r--r--r-- | 21616 | May 5 09:25 1997 | ./omdsim/om_tr/om_trans_sub.c              |
| r--r--r-- | 2266  | May 5 09:25 1997 | ./omdsim/om_tr/om_transmission_task.c      |
| r--r--r-- | 6251  | May 5 09:25 1997 | ./omdsim/om_tr/om_transmission_task_stub.c |
| r--r--r-- | 8388  | May 5 09:25 1997 | ./omdsim/om_tr/om_tt_merge.c               |
| r--r--r-- | 3868  | May 5 09:25 1997 | ./omdsim/om_tr/om_tt_merge_scs.c           |
| r--r--r-- | 3268  | May 5 09:25 1997 | ./omdsim/om_tr/om_unpk_pb5.c               |
| r--r--r-- | 2287  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_comm_counters.c   |
| r--r--r-- | 4232  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_counter.c         |
| r--r--r-- | 3595  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_counters.c        |
| r--r--r-- | 4013  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_flsb_counters.c   |
| r--r--r-- | 2470  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_path_counters.c   |
| r--r--r-- | 11051 | May 5 09:25 1997 | ./omdsim/om_tr/om_update_rlsb_counters.c   |
| r--r--r-- | 2535  | May 5 09:25 1997 | ./omdsim/om_tr/om_update_vcdt_counters.c   |
| r--r--r-- | 761   | May 5 09:25 1997 | ./omdsim/om_tr/om_write_for_ftp.c          |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./omdsim/om_ui/                            |
| r--r--r-- | 97797 | May 5 09:25 1997 | ./omdsim/om_ui/bxutils.c                   |
| r--r--r-- | 5032  | May 5 09:25 1997 | ./omdsim/om_ui/om_ui.mk                    |
| r--r--r-- | 4837  | May 5 09:25 1997 | ./omdsim/om_ui/om_ui_vme.mk                |
| r--r--r-- | 21987 | May 5 09:25 1997 | ./omdsim/om_ui/omdsim.help                 |
| r--r--r-- | 3553  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_ccsds_vcid_number.c     |
| r--r--r-- | 4921  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_client_socket.c         |
| r--r--r-- | 2032  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_coda_contents.c         |
| r--r--r-- | 5164  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_comm_link.c             |
| r--r--r-- | 2165  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_exit.c                  |
| r--r--r-- | 7677  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_load_omd.c              |
| r--r--r-- | 6158  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_load_scn.c              |
| r--r--r-- | 4183  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_log_omd_rcvd.c          |
| r--r--r-- | 3929  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_log_omd_xmt.c           |
| r--r--r-- | 3043  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_mps_socket.c            |
| r--r--r-- | 6481  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_msg_received.c          |
| r--r--r-- | 8849  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_new_omd.c               |
| r--r--r-- | 3051  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_number_ccsds_vcids.c    |
| r--r--r-- | 3417  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_number_flpps.c          |
| r--r--r-- | 3606  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_number_rlpp_vcids.c     |
| r--r--r-- | 2952  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_number_rlpps.c          |
| r--r--r-- | 5710  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_oe_changed_funcs.c      |
| r--r--r-- | 3943  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_oe_exit.c               |
| r--r--r-- | 3661  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_oe_gmh_funcs.c          |
| r--r--r-- | 7510  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_oe_save_funcs.c         |
| r--r--r-- | 7437  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_open_omd_funcs.c        |
| r--r--r-- | 5959  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_open_scn_funcs.c        |
| r--r--r-- | 4477  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_other_ccsds_vcid.c      |
| r--r--r-- | 4360  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_other_rlpp.c            |
| r--r--r-- | 4994  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_other_rlpp_vcid.c       |
| r--r--r-- | 3398  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_pds_edt_changed_funcs.c |

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|-----------|-------|------------------|---|
| r--r--r-- | 4902  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_pds_eds_number_funcs.c |
| r--r--r-- | 7988  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_pds_eds_other_funcs.c  |
| r--r--r-- | 5831  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_pds_eds_set_funcs.c    |
| r--r--r-- | 3661  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_rlpp_number.c          |
| r--r--r-- | 32909 | May 5 09:25 1997 | ./omdsim/om_ui/oui.ul                     |
| r--r--r-- | 5329  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_scenario.c             |
| r--r--r-- | 4498  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_rlpp_vcid_number.c     |
| r--r--r-- | 3632  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_set_ccsds_vcid_funcs.c |
| r--r--r-- | 3491  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_set_rlpp_funcs.c       |
| r--r--r-- | 4438  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_set_rlpp_vcid_funcs.c  |
| r--r--r-- | 5961  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_transmission.c         |
| r--r--r-- | 3498  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_unload_omd.c           |
| r--r--r-- | 3444  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_unload_scn.c           |
| r--r--r-- | 6157  | May 5 09:25 1997 | ./omdsim/om_ui/ouc_view_omd_log_funcs.c   |
| r--r--r-- | 5927  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_close_comm.c           |
| r--r--r-- | 4861  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_ccsds_vcid.c   |
| r--r--r-- | 13170 | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_coda.c         |
| r--r--r-- | 3397  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_flpp.c         |
| r--r--r-- | 4427  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_gnd_msg_hdr.c  |
| r--r--r-- | 2669  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_omd.c          |
| r--r--r-- | 3223  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_omd_log.c      |
| r--r--r-- | 16566 | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_pds_eds.c      |
| r--r--r-- | 9097  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_rlpp.c         |
| r--r--r-- | 4872  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_display_rlpp_vcid.c    |
| r--r--r-- | 2130  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_exit.c                 |
| r--r--r-- | 22365 | May 5 09:25 1997 | ./omdsim/om_ui/ouf_get_coda_funcs.c       |
| r--r--r-- | 4339  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_get_counter.c          |
| r--r--r-- | 3473  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_get_gnd_msg_hdr.c      |
| r--r--r-- | 2090  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_get_omd_values.c       |
| r--r--r-- | 15475 | May 5 09:25 1997 | ./omdsim/om_ui/ouf_get_pds_eds.c          |
| r--r--r-- | 2115  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_initialize_params.c    |
| r--r--r-- | 7285  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_open_comm.c            |
| r--r--r-- | 2315  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_read_omd.c             |
| r--r--r-- | 4091  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_reset_activity.c       |
| r--r--r-- | 4104  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_reset_comm_link.c      |
| r--r--r-- | 3850  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_set_counter.c          |
| r--r--r-- | 2124  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_stop_transmission.c    |
| r--r--r-- | 2156  | May 5 09:25 1997 | ./omdsim/om_ui/ouf_terminate_scenario.c   |
| r--r--r-- | 70267 | May 5 09:25 1997 | ./omdsim/om_ui/oui_coda.ul                |
| r--r--r-- | 42669 | May 5 09:25 1997 | ./omdsim/om_ui/oui_creation.c             |
| r--r--r-- | 78325 | May 5 09:25 1997 | ./omdsim/om_ui/oui_coda_creation.c        |
| r--r--r-- | 8460  | May 5 09:25 1997 | ./omdsim/om_ui/oui_main.c                 |
| r--r--r-- | 17400 | May 5 09:25 1997 | ./omdsim/om_ui/oui_omd_ed.ul              |
| r--r--r-- | 20430 | May 5 09:25 1997 | ./omdsim/om_ui/oui_omd_ed_creation.c      |
| r--r--r-- | 42411 | May 5 09:25 1997 | ./omdsim/om_ui/oui_pds_eds.ul             |
| r--r--r-- | 55923 | May 5 09:25 1997 | ./omdsim/om_ui/oui_pds_eds_creation.c     |
| r--r--r-- | 19872 | May 5 09:25 1997 | ./omdsim/om_ui/oup_create_omd_ed.c        |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./mps/                                    |
| rwxr-xr-x | 0     | Jun 5 12:19 1997 | ./mps/mp_ui/                              |
| r--r--r-- | 97797 | May 5 09:25 1997 | ./mps/mp_ui/bxutils.c                     |
| r--r--r-- | 6789  | May 5 09:25 1997 | ./mps/mp_ui/mp_ui.mk                      |
| r--r--r-- | 6300  | May 5 09:25 1997 | ./mps/mp_ui/mp_ui_vme.mk                  |
| r--r--r-- | 18913 | May 5 09:25 1997 | ./mps/mp_ui/mps.help                      |
| r--r--r-- | 7478  | May 5 09:25 1997 | ./mps/mp_ui/muc_activity_log_funcs.c      |

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|-----------|-------|------------------|---|
| r--r--r-- | 2166  | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_cmd.c                         |
| r--r--r-- | 5728  | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_cmd_edos_funcs.c              |
| r--r--r-- | 16114 | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_cmd_sc_funcs.c                |
| r--r--r-- | 10705 | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_cmd_val_funcs.c               |
| r--r--r-- | 5969  | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_modeling.c                    |
| r--r--r-- | 12529 | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_pkt_fmt_funcs.c               |
| r--r--r-- | 2170  | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_tlm.c                         |
| r--r--r-- | 9436  | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_tlm_edos_funcs.c              |
| r--r--r-- | 12696 | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_tlm_pkt_funcs.c               |
| r--r--r-- | 22185 | May 5 09:25 1997 | ./mps/mp_ui/muc_cfg_tlm_sc_funcs.c                |
| r--r--r-- | 9947  | May 5 09:25 1997 | ./mps/mp_ui/muc_clcw_ctl_funcs.c                  |
| r--r--r-- | 10659 | May 5 09:25 1997 | ./mps/mp_ui/muc_create_rb_files.c                 |
| r--r--r-- | 9705  | May 5 09:25 1997 | ./mps/mp_ui/muc_data_source_funcs.c               |
| r--r--r-- | 9172  | May 5 09:25 1997 | ./mps/mp_ui/muc_drop_tlm_funcs.c                  |
| r--r--r-- | 5816  | May 5 09:25 1997 | ./mps/mp_ui/muc_exit.c                            |
| r--r--r-- | 10382 | May 5 09:25 1997 | ./mps/mp_ui/muc_hsio_cfg_funcs.c                  |
| r--r--r-- | 1983  | May 5 09:25 1997 | ./mps/mp_ui/muc_log_cmd.c                         |
| r--r--r-- | 10521 | May 5 09:25 1997 | ./mps/mp_ui/muc_log_tlm.c                         |
| r--r--r-- | 3616  | May 5 09:25 1997 | ./mps/mp_ui/muc_model_act_funcs.c                 |
| r--r--r-- | 9391  | May 5 09:25 1997 | ./mps/mp_ui/muc_model_cfg_funcs.c                 |
| r--r--r-- | 2499  | May 5 09:25 1997 | ./mps/mp_ui/muc_model_close.c                     |
| r--r--r-- | 9454  | May 5 09:25 1997 | ./mps/mp_ui/muc_model_list_funcs.c                |
| r--r--r-- | 4687  | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_clcw_funes.c                  |
| r--r--r-- | 9430  | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_cmd_status_funcs.c            |
| r--r--r-- | 4882  | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_command_funcs.c               |
| r--r--r-- | 12247 | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_edu_funcs.c                   |
| r--r--r-- | 12127 | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_packet_funcs.c                |
| r--r--r-- | 12033 | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_parameter_funcs.c             |
| r--r--r-- | 3488  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario.c                        |
| r--r--r-- | 9142  | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_tlm_status_funcs.c            |
| r--r--r-- | 12165 | May 5 09:25 1997 | ./mps/mp_ui/muc_mon_vcdv_funcs.c                  |
| r--r--r-- | 5725  | May 5 09:25 1997 | ./mps/mp_ui/muc_omd_socket.c                      |
| r--r--r-- | 4988  | May 5 09:25 1997 | ./mps/mp_ui/muc_print_funcs.c                     |
| r--r--r-- | 10231 | May 5 09:25 1997 | ./mps/mp_ui/muc_proc_config_funcs.c               |
| r--r--r-- | 7792  | May 5 09:25 1997 | ./mps/mp_ui/muc_sc_buffer_funcs.c                 |
| r--r--r-- | 2527  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_close_CB.c               |
| r--r--r-- | 1955  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_close_no_CB.c            |
| r--r--r-- | 2044  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_close_ok_CB.c            |
| r--r--r-- | 2417  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_create_CB.c              |
| r--r--r-- | 3542  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_ok_CB.c                  |
| r--r--r-- | 3017  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_parse.c                  |
| r--r--r-- | 11399 | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_start_CB.c               |
| r--r--r-- | 3563  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_stop_CB.c                |
| r--r--r-- | 3200  | May 5 09:25 1997 | ./mps/mp_ui/muc_scenario_update_elapsed_time_CB.c |
| r--r--r-- | 20672 | May 5 09:25 1997 | ./mps/mp_ui/muc_set_time.c                        |
| r--r--r-- | 3387  | May 5 09:25 1997 | ./mps/mp_ui/muc_sim_mode.c                        |
| r--r--r-- | 19754 | May 5 09:25 1997 | ./mps/mp_ui/muc_socket.c                          |
| r--r--r-- | 11197 | May 5 09:25 1997 | ./mps/mp_ui/muc_start_tlm.c                       |
| r--r--r-- | 11552 | May 5 09:25 1997 | ./mps/mp_ui/muc_stop_tlm.c                        |
| r--r--r-- | 3317  | May 5 09:25 1997 | ./mps/mp_ui/muc_user_cmd.c                        |
| r--r--r-- | 6211  | May 5 09:25 1997 | ./mps/mp_ui/muc_view_funcs.c                      |
| r--r--r-- | 1713  | May 5 09:25 1997 | ./mps/mp_ui/muc_xmit_clcw.c                       |
| r--r--r-- | 2842  | May 5 09:25 1997 | ./mps/mp_ui/muf_create_monitor_box.c              |
| r--r--r-- | 4875  | May 5 09:25 1997 | ./mps/mp_ui/muf_display_data.c                    |

|           |       |                  |  |
|-----------|-------|------------------|--|
| r--r--r-- | 5192  | May 5 09:25 1997 | ./mps/mp_ui/muf_init_display.c         |
| r--r--r-- | 6093  | May 5 09:25 1997 | ./mps/mp_ui/muf_init_proc.c            |
| r--r--r-- | 3201  | May 5 09:25 1997 | ./mps/mp_ui/muf_open_socket.c          |
| r--r--r-- | 8186  | May 5 09:25 1997 | ./mps/mp_ui/muf_queue_funcs.c          |
| r--r--r-- | 14579 | May 5 09:25 1997 | ./mps/mp_ui/muf_read_params.c          |
| r--r--r-- | 6605  | May 5 09:25 1997 | ./mps/mp_ui/muf_send_msg.c             |
| r--r--r-- | 6387  | May 5 09:25 1997 | ./mps/mp_ui/muf_set_action.c           |
| r--r--r-- | 25311 | May 5 09:25 1997 | ./mps/mp_ui/muf_show_msg_funcs.c       |
| r--r--r-- | 11082 | May 5 09:25 1997 | ./mps/mp_ui/muf_write_params.c         |
| r--r--r-- | 14461 | May 5 09:25 1997 | ./mps/mp_ui/mui_clcw_ctl.uil           |
| r--r--r-- | 17102 | May 5 09:25 1997 | ./mps/mp_ui/mui_clcw_ctl_creation.c    |
| r--r--r-- | 28024 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_cfg.uil            |
| r--r--r-- | 39072 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_cfg_creation.c     |
| r--r--r-- | 22180 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_status.uil         |
| r--r--r-- | 28866 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_status_creation.c  |
| r--r--r-- | 11043 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_valid.uil          |
| r--r--r-- | 11384 | May 5 09:25 1997 | ./mps/mp_ui/mui_cmd_valid_creation.c   |
| r--r--r-- | 11014 | May 5 09:25 1997 | ./mps/mp_ui/mui_drop_tlm.uil           |
| r--r--r-- | 10131 | May 5 09:25 1997 | ./mps/mp_ui/mui_drop_tlm_creation.c    |
| r--r--r-- | 22241 | May 5 09:25 1997 | ./mps/mp_ui/mui_hsio_cfg.uil           |
| r--r--r-- | 29138 | May 5 09:25 1997 | ./mps/mp_ui/mui_hsio_cfg_creation.c    |
| r--r--r-- | 3114  | May 5 09:25 1997 | ./mps/mp_ui/mui_init.params            |
| r--r--r-- | 8769  | May 5 09:25 1997 | ./mps/mp_ui/mui_main.c                 |
| r--r--r-- | 45651 | May 5 09:25 1997 | ./mps/mp_ui/mui_main.uil               |
| r--r--r-- | 63941 | May 5 09:25 1997 | ./mps/mp_ui/mui_main_creation.c        |
| r--r--r-- | 19838 | May 5 09:25 1997 | ./mps/mp_ui/mui_model.uil              |
| r--r--r-- | 25893 | May 5 09:25 1997 | ./mps/mp_ui/mui_model_creation.c       |
| r--r--r-- | 10887 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_edu.uil            |
| r--r--r-- | 10036 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_edu_creation.c     |
| r--r--r-- | 10094 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_parm.uil           |
| r--r--r-- | 10054 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_parm_creation.c    |
| r--r--r-- | 10974 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_pkt.uil            |
| r--r--r-- | 10174 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_pkt_creation.c     |
| r--r--r-- | 10927 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_vcd.uil            |
| r--r--r-- | 10124 | May 5 09:25 1997 | ./mps/mp_ui/mui_mon_vcd_creation.c     |
| r--r--r-- | 9323  | May 5 09:25 1997 | ./mps/mp_ui/mui_monitor.uil            |
| r--r--r-- | 8412  | May 5 09:25 1997 | ./mps/mp_ui/mui_monitor_creation.c     |
| r--r--r-- | 22053 | May 5 09:25 1997 | ./mps/mp_ui/mui_pkt_fmt_cfg.uil        |
| r--r--r-- | 29125 | May 5 09:25 1997 | ./mps/mp_ui/mui_pkt_fmt_cfg_creation.c |
| r--r--r-- | 12308 | May 5 09:25 1997 | ./mps/mp_ui/mui_sc_buffer.uil          |
| r--r--r-- | 13910 | May 5 09:25 1997 | ./mps/mp_ui/mui_sc_buffer_creation.c   |
| r--r--r-- | 16368 | May 5 09:25 1997 | ./mps/mp_ui/mui_scenario.uil           |
| r--r--r-- | 18382 | May 5 09:25 1997 | ./mps/mp_ui/mui_scenario_creation.c    |
| r--r--r-- | 19605 | May 5 09:25 1997 | ./mps/mp_ui/mui_set_time.uil           |
| r--r--r-- | 19529 | May 5 09:25 1997 | ./mps/mp_ui/mui_set_time_creation.c    |
| r--r--r-- | 53060 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_cfg.uil            |
| r--r--r-- | 65414 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_cfg_creation.c     |
| r--r--r-- | 17773 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_pkt.uil            |
| r--r--r-- | 22686 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_pkt_creation.c     |
| r--r--r-- | 14367 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_status.uil         |
| r--r--r-- | 16235 | May 5 09:25 1997 | ./mps/mp_ui/mui_tlm_status_creation.c  |
| r--r--r-- | 273   | May 5 09:25 1997 | ./mps/mp_ui/solar.scn                  |
| r-xr-xr-x | 3340  | May 5 09:25 1997 | ./mps/build_mps                        |
| r--r--r-- | 2477  | May 5 09:25 1997 | ./mps/mps.app_defaults                 |

|           |         |                  |                                   |
|-----------|---------|------------------|-----------------------------------|
| rwxr-xr-x | 0       | Jun 5 12:19 1997 | ./mps/mp_client/                  |
| r--r--r-- | 13268   | May 5 09:25 1997 | ./mps/mp_client/mps_client.c      |
| r--r--r-- | 1039    | May 5 09:25 1997 | ./mps/mp_client/mps_client.mk     |
| r--r--r-- | 786     | May 5 09:25 1997 | ./mps/mp_client/mps_client_vme.mk |
| rw-r--r-- | 1408280 | May 5 09:26 1997 | /MPS_1.2.0.tar.Z                  |

## **Attachment K - ETS Documentation References**

The following change information is applicable to documentation references used by MPS Release 1.2.0.

| <u>Document</u>   | <u>Location</u> |
|---|-----------------|
| --, User's Guide for ETS Multimode Portable Simulator, Draft, June 1997 | 6               |

Location Legend:

| <u>No.</u> | <u>Designation</u>  |
|------------|---|
| 6          | Draft document<br>GSFC Building 32, Room C210, and<br>GSFC Building 25, Room N155 |

**Attachment L - Mission Systems Configuration Management Form**

This attachment contains the completed Mission Systems Configuration Management (MSCM) form for the delivery of the MPS Release 1.2.0.

### Mission Systems Configuration Management Form

| 1. ORIGINATOR<br>Estelle Noone  | 2. ORGANIZATION<br>CSC | 3. PHONE<br>(301)794-1305  | 4. E-MAIL ADDRESS<br>enoone@cscgt.gsfc.nasa.gov |                     |
|---|------------------------|--|---|---------------------|
| 5. ELEMENT<br>ETS (HRS, LRS, MPS)   |                        | 6. INSTALLATION PRIORITY<br>Routine  | 7. TRACKING NUMBER<br>(Assigned by CM Office)   |                     |
| 8. SOURCE CHANGE<br><u>REQUEST(S):</u><br>ETS DRB and ESDIS ERB approved<br>MPS release for SMO DR closure.   |                        | 9. APPROVALS<br>Element Manager _____ / _____<br>Flight Ops Director _____ / _____<br>Operations Manager _____ / _____ |   |                     |
| 10. DELIVERED SYSTEM (Check all that apply)   |                        |  |   |                     |
|   | Name                   | Version  | Media Identification                            | Identification Date |
| <input type="checkbox"/> Hardware   | _____                  | _____  | _____   | _____               |
| <input checked="" type="checkbox"/> Software  | MPS                    | R1.2.0   | 4 mm DAT & Four 3.5" Diskettes                  | 6/6/97              |
| <input type="checkbox"/> Database   | _____                  | _____  | _____   | _____               |
| <input checked="" type="checkbox"/> Documentation:  | _____                  | _____  | _____   | _____               |
| <input type="checkbox"/> MPS Delivery Package   | n/a                    | 3.5" Diskette  | _____   | 6/6/97              |
| <input type="checkbox"/> _____  | _____                  | _____  | _____   | _____               |
| <input type="checkbox"/> _____  | _____                  | _____  | _____   | _____               |
| <input type="checkbox"/> Other  | _____                  | _____  | _____   | _____               |
| 11. CHANGE DESCRIPTION<br>MPS Release 1.2.0 closes the list of SMO DRs identified in the attached delivery package.<br>_____<br>_____<br>_____  |                        |  |   |                     |
| 12. ATTACHMENT(S): Check if YES <input checked="" type="checkbox"/><br>Description: MPS Release 1.2.0 delivery package (cover letter with attachments) dated 6/6/97<br>_____<br>_____ |                        |  |   |                     |
| 13. CM OFFICE USE   |                        |  |   |                     |
| Location (Bldg/Room)  |                        | Slot location(s)   |   |                     |
| Hardware  | /                      | _____  |   |                     |
| Media   | /                      | _____  |   |                     |
| Documentation   | /                      | _____  |   |                     |
| Installation date   | / /                    | CM Office Signature _____  |   |                     |

Form MSCM (970327)