PERKIN-ELMER

OS/32 7.2

MULTI-TERMINAL MONITOR

(MTM)

SOFTWARE

PACKAGING INFORMATION DOCUMENT

Consists of Packaging Information For:

800 BPI Magnetic Tape Package	04-083M31R09
1600 BPI Magnetic Tape Package	04-083M71R09
10Mb Disk Package	04-083M61R09
16Mb Disk Package	04-083MD1R09
16Mb Disk w/IDC Format Package	04-083MG1R09
25Mb Disk Package	04-083MJ1R09

04-083M95R09

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N O T E

- Please note additional copies of this document may be created by using the EDIT/32 Utility.

  Example:

  ```
  LOAD EDIT32
  TASK EDIT32
  START
  GET MTM72.M95
  SAVE print-device:
  END
  ```

  The user should check his configuration for the particular print device in use.

- Users should note that bars appearing in the left and right margins of this document indicate information which has been added or revised from the previous release.

1 PRODUCT IDENTIFICATION

Product Title:	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package
Sales Order Number:	
	Group I License:
S71-017	3205 Processor
	Group II License:
S72-017	3210 Processor
	3220 Processor
	3220A Processor
	3230 Processor
	7/32 Processor
	8/32 Processor
	Group III License:
S73-017	3240 Processor
	3250 Processor
	3250XP Processor
	3200MPS Processor
Perkin-Elmer Part Number:	04-083 R09

2 GENERAL INFORMATION

The OS/32 Multi-Terminal Monitor (MTM) Software Package consists of a program package (04-083) and a documentation package (04-083M99).

The OS/32 Multi-Terminal Monitor (MTM) requires an OS/32 7.2 environment in which to execute. Refer to the OS/32 7.2 Software Packaging Information Document. 04-082M95R15, for further information.

3 AVAILABLE PACKAGES

The OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Packages currently available are:

Order Number	Part Number	Package Description
S7x-017-ABB*	04-083M31R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package Functional Programs (9-track 800 BPI Magnetic Tape) and Documentation Package
S7x-017-ABC*	04-083M71R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package Functional Programs (9-track 1600 BPI Magnetic Tape) and Documentation Package
S7x-017-ABP*	04-083MD1R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package Functional Programs (16Mb Disk) and Documentation Package
S7x-017-ABQ*	04-083MG1R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package Functional Programs (16Mb Disk with IDC Format) and Documentation Package
S7x-017-ABU*	04-083MJ1R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Software Package Functional Programs (25Mb Disk) and Documentation Package
S70-017-BCM	04-083M99R09	OS/32 Multi-Terminal Monitor (MTM) R07-02 Documentation Package

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*Where S7x will be one of the three license categories as defined in Section 1 of this document.

4 DOCUMENTATION

The OS/32 Multi-Terminal Monitor (MTM) R07-02 Documentation Package, S70-017-BCM, consists of the following two manuals:

Part Number	Publication Title
48-043 F00 R02	OS/32 Multi-Terminal Monitor (MTM) Reference Manual
48-023 F00 R03	OS/32 Multi-Terminal Monitor (MTM) System Planning and Operator Reference Manual
04-083M95 R09	OS/32 Multi-Terminal Monitor (MTM) Packaging Information Document

5 FILE PROGRAM PACKAGE

In addition to the MTM program package files listed below the package also contains two general files:

INFORM.CSS	-	A restricted rights disclosure
MTM72.M95	-	A user-generated file for duplication of this packaging document (see page ii)

Filename	Part Number	Rev	Program Description
ACTUTY.OBJ	03-150 M00	R02-01	OS/32 Authorized User Utility Program (object)
ACTUTY.TSK	03-150 M08	R02-01	OS/32 Authorized User Utility Program (image)
MTMLLE.OBJ	03-502 M00	R00-00	OS/32 Load Leveling Executive (object)
MTMLLE.TSK	03-502 M08	R00-00	OS/32 Load Leveling Executive (image)
MTMMAIN.OBJ	03-151 F01 M00	R07-02	OS/32 Multi-Terminal Monitor (MTM) Program (object)
MTM.TSK	03-151 F01 M08	R07-02	OS/32 Multi-Terminal Monitor (MTM) Program (image)
MTMSGN.MAC	03-151 F03 M09	R07-02	OS/32 Multi-Terminal Monitor (MTM) Sysgen Module (source)
MTMSGN.OBJ	03-151 F03 M00	R07-02	OS/32 Multi-Terminal Monitor (MTM) Sysgen Module (object)
MTMSGN.CSS	03-151 F04 M09	R07-02	OS/32 Multi-Terminal Monitor (MTM) System Generation CSS (source)
MTMPARMS.MAC	03-151 F02 M09	R07-02	OS/32 Multi-Terminal Monitor (MTM) Sysgen Parameters (source)
MTMASST.TSK	03-151 F06 M08	R07-02	OS/32 Multi-Terminal Monitor Assist Program (image)

Filename	Part Number	Rev	Program Description
MTMASST.OBJ	03-151 F06 M00	R07-02	OS/32 Multi-Terminal Monitor Assist Program (object)
MTMSTRUC.MLB	07-322 M00	R00-00	OS/32 Multi-Terminal Monitor (MTM) Macro Library
EOU.CSS	03-342 F04 M09	R02-00	OS/32 Ease of Use (EOU) Program Development Procedures (source)
NEOU72.TSK	03-342 F05 M08	R01-00	OS/32 Ease of Use (EOU) Environment Monitor (image)
MULTMTM.HLP	03-342 F01 M08	R01-00	OS/32 Multi-Module Environment Help Information (ASCII/Binary)
DISPMTM.HLP	03-342 F02 M08	R01-00	OS/32 Display Help Information (ASCII/Binary)
SINGMTM.HLP	03-342 F03 M08	R01-00	OS/32 Single Module Environment Help Information (ASCII/Binary)
NEOU72.LIB	03-342 M00	R01-00	OS/32 Ease of Use (EOU) Library File (object)
NEOU72.LNK	03-342 M09	R01-00	OS/32 Ease of Use (EOU) LINK File (source)

6 UNPACKAGING AND INSTALLATION

6.1 Disk Unpackaging (16 and 25Mb)

The package files supplied on disk are labelled 'MTM'. There is no unpackaging procedure for disk packages as the software is immediately usable.

6.2 Magnetic Tape (800 and 1600 BPI)

The files are supplied on a magnetic tape in OS/32 Backup Utility format. The unpackaging procedure involves copying the files from tape to a user disk utilizing OS/32 BACKUP.

After selecting a disk onto which the files are to be copied, review the disk filenames to ensure that they do not conflict with the filenames in this package as listed in Section 5 above. Rename any conflicting filenames to some other appropriate name.

NOTE

The supplied files in this package must not be renamed because the MTM command substitution system (CSS) files require specific filenames as listed in this document.

To unpackage the files from the system console or the Multi-Terminal Monitor (MTM) terminal, mount the supplied MTM magnetic tape and run OS/32 BACKUP Utility via the following commands:

```
LOAD BACKUP
TASK BACKUP
START .IN=dev1:,OUT=dev2:,LIST=dev3:,VERIFY
```

where:

dev1 is the device name for the magnetic tape drive

dev2 is the device name for the disk

dev3 is the device name for the printer or list device

Note that all device names have the standard OS/32 format. They are dependent on the particular configuration of the user system and can be determined by entering the OS/32 command 'DISPLAY DEVICES' at the console or terminal.

NOTE

In running OS/32 BACKUP from an MTM terminal, the user must sign on to an account having bare disk access and the task account privilege enabled. Account 255 will always have these privileges.

For further information on BACKUP, see Chapter 5 of the OS/32 System Support Utilities Reference Manual, Publication Number 48-031 R02.

6.3 Post-Installation Procedures

Before using the installed software, it is recommended that the following procedures be executed:

- Using OS/32 BACKUP Utility, copy the software files for archiving.

- After marking the disk on and setting the appropriate volume, enter the command substitution system (CSS) call:

  INFORM [list-device:]

  Information regarding this product will then be displayed on the the system console by default, or to an optional device specified in the CSS call.

APPENDIX A
FUNCTIONAL CHANGES

OS/32 Multi-Terminal Monitor (MTM) R07-02 is functionally equivalent to OS/32 MTM R06-02. Changes were required for compatibility with revised OS/32 R07-02 system data structures.

- Type Ahead Support

  Type-ahead support in the BIOC driver gives the device the appearance of having full duplex capability. This means that the driver continues to accept keyboard input even when the task is not ready to receive it (i.e., no connected read request.) This would allow a good typist to proceed at any pace without losing characters because the task was not reading.

  Any characters typed during this period will be placed on the type-ahead character queue. The characters will be passed to the task for processing on the subsequent read request. Currently, BIOC supports a static 80 byte type-ahead queue.

- Interactive Signon

  A user may invoke the interactive signon by simply typing -

  S [IGNON]

  MTM will prompt the user to enter each of the required signon parameters. If the MTM terminal is a BIOC type terminal. a no-echo read is executed for the user account number and password.

- Load Leveling and PSM Commands

  The load leveling feature is geared to improve throughput of the multiprocessor MPS model for MTM sub-tasks. MTM employs a separate task MTMLLE to direct the sub-tasks to the central or the auxiliary processors depending on the processor used and I/O intensity of the sub-tasks. The task behavior is evaluated by the Priority Scheduling Mechanisim (PSM) and the MTM load leveling and PSM parameters can be adjusted via dedicated operator commands.

APPENDIX B
LINKAGE INSTRUCTIONS FOR MTMMAIN

It is recommended that MTMSGN.CSS be used to build the MTM task. If it is necessary to link MTM without using the provided CSS, the following commands will perform the same function.

```
TITLE  MTMMAIN
ESTAB  TASK
MAP    ,ADDR
INCL   MTMMAIN
INCL   MTMSGN
+OPT   IOB=4,LU=30
BUILD  MTM
END
```

NOTE

Default LINK options for MTM are now included in the object file. This relieves the user of the necessity to specify the options at LINK time. The default options are:

```
+OPT CON,CON,XSVC1.ET.INT.ABS=0,APM.APC
```

The link instructions for MTM Load Leveling are as follows:

```
TITLE MTMLLE
ESTABLISH TASK
INCLUDE MTMLLE.OBJ
+OPT  ET.NAPF,ABS=0,PRIO=(10.10)
MAP.ALPHA
BUILD MTMLLE.TSK
END
```

For information on overriding any of these default options at link time, refer to the DCMD and NDCMD in the OS/32 Link Reference Manual, Publication Number 48-005 R02.