Read Before Installing
MPE/iX Release 7.0 (C.70.00)

HP e3000 MPE/iX Computer Systems

Edition 1

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1 Information You Need Before Installing MPE/iX 7.0

Announcements

- 9x7s are not supported on the MPE/iX 7.0 release. MPE/iX Release 7.0 will not boot on 9x7 systems.

- 6250 half-inch tapes will not be supported as a distribution medium on MPE/iX 7.0 release. Support of distribution on 6250 half-inch tape for all releases will end sometime this year.

- Predictive Support is currently not functional on A- and N-Class systems on MPE/iX 7.0 base. A patch will be provided shortly. The software is working fine on existing platforms.

Important Issues Regarding the Release

- JAGad48163: Failed logon to Predictive Server — causes LDEV 21 port hang.

  This defect currently prevents the Predictive Support software to run properly on A- and N-class systems. A patch will be available shortly.

- JAGad46600: ARMSERVER missing for Autoraid on MPE/iX 7.0 base.

  The functionality is not part of MPE/iX 7.0 base. A patch will be provided shortly.

- TERMDSM as a standalone application.

  This will be available as a patch shortly after MPE/iX 7.0 base shipment.

Release Notes

Core Operating System

JAGad45435   **Boot delayed in MPE/iX 7.0 due to DVD-ROM being configured.**

During System Boot, MPE/iX attempts to Mount all disk volumes that are configured and present. On N-Class and A-Class (PCI Systems), if you configure a DVD-ROM (CD-ROM) type of device and it does not contain a valid MPE/iX Volume, the system is forced to wait for a full "time-out" period of two minutes.

There are two possible workarounds:

1. Keep an MPE/iX Software Release CD-ROM mounted in the drive at all times.

2. Delete the DVD-ROM device from your configuration except when you need to run HPINSTAL. A variation would be to maintain two configurations: one with the DVD-ROM; and the other without the DVD-ROM.

JAGad45757   **Since MPE/iX 6.5 release LDEV #1 may show an incorrect Device ID in some cases.**

When using some system I/O information gathering tools, the device information for LDEV #1, LDEV #7 and LDEV #20 may not be correct. You may gather this information using the ODE (Offline Diagnostic Environment) tool Mapper (NIO systems) OR Mapper2 (PCI systems).

Networking

JAGad30941   **PCI 100Base-T Reports High Retry (Collision) Counts and Deferrals**.

On first-release MPE/iX 7.0, PCI 100Base-T LAN adapters operating in 10Mbps half-duplex mode can experience unusually high percentages of transmit collisions and deferrals on both N- and A-class, mainly during file transfers. A fact of life for half-duplex networks, collisions are automatically retried by LAN hardware, but throughput suffers if they occur too often. Although no other speed-duplex combination currently exhibits the same problem, 10/half is unfortunately the most common mode for legacy networks. On MPE/iX, collision (or "retry") statistics are available to network administrators via the :LINKCONTROL;STATUS=S command.

The cause of the problem has been traced to occasional unexplained delays on the PCI I/O bus. These delays happen to last just long enough to give earlier transmitted LAN frames enough time to travel to the remote, whose subsequent responses then collide when transmission resumes. The delays, which are beyond the control of 100Base-T software and hardware,

occur in first-release MPE/iX 7.0 but are hoped to end when large memory support is added to MPE/iX for 7.0 Express-1.

The best workaround is to upgrade the network connection to allow the 100Base-T adapter to connect in full-duplex mode, allowing it to transmit and receive at the same time. Network connections supporting 100Mbps half-duplex also seem to avoid the collisions, since frames moving at 100Mbps are present on their LAN for a shorter interval and thus have less chances to collide. A less reliable workaround may be to try altering the LAN delay by moving to a different part of the network, or by inserting an extra network hub or longer cable.

JAGad34883 **NMMGR reports validation successful when SYSGEN says not valid.**

Starting in the MPE/iX 7.0 release, for the A- and N-Class platforms only, networking components no longer need to be configured in SYSGEN. However, SYSGEN will report warnings about missing components when cross-validation is done. These particular warnings can be ignored. Messages about conflicting paths between NMMGR and SYSGEN should be examined to see if a path has been configured for SCSI devices in SYSGEN and networking use in NMMGR.

JAGad36730 **MPE/iX 7.0 SNMP/iX terminates on a system where it's the target of a request for information on the 100BT Interface.**

Currently SNMP supports true link types for ThinLan, LAPB, SDLC, RJE, and 8025. SNMP does not support NIO 100 BT, PCI 100 BT, FDDI and ACC drivers. The support for these drivers will be available in release 7.0 Express 1.

JAGad40431 **MPE/iX 7.0 NS DSLINE fails when only loopback started: works on MPE/iX 6.0 release.**

Problem Description

When only loopback network is started, then executing the commands "dsline local m/c name" followed by "remote" will fail.

This happens only if the local m/c name resolve to an IP address other than the `127.0.0.1.`

For example, the system named "ALPHA" has one configured LAN network, named "LAN1."

And the IP address for the LAN interface is, `196.10.15.2.`

And only the loopback network is started.

Now if the node name "ALPHA" resolves to the LAN IP address, i.e., `196.10.15.2,` then the "remote" command will fail. But if the name "ALPHA" resolve to `127.0.01,` then the remote command will succeed.

Workaround

There are at least two workarounds available.

1. If the m/c name resolves to loopback address (`127.0.01`) on the local
   system, then the problem won't occur.

   Add an entry for the local m/c name in the `HOSTS.NET.SYS` file as,
   `127.0.0.1` m/c name

   For example, Consider the previous example, given in the "Problem
   Description section.

   The `HOSTS.NET.SYS` file on the system "ALPHA" should have an entry,
   `127.0.0.1` ALPHA.

   (or)

2. One could start any configured network along with the loopback
   network.

JAGad43219 **NMMGR; renaming links does not change the name everywhere.**

Problem

Renaming the links does not change the name every where. If you rename
the link through **Unguided Config**-> **Link Selection Screen**, the
change is not reflected everywhere.

Workaround Solution

Rename the Link by the Unguided Config -> Netxport -> NI -> Modify ->
Go to Link and then Rename the Link.

JAGad44276 **Stopping LAPB NI on PCI machine, LAPB NI on NIO is killed.**

On first-release MPE/iX 7.0, PSI LAPB can experience a PSI DUMP
problem when connected with a PCI ACC, mainly during restart of the
ACC LAPB Driver. This problem happens during the restart of the ACC
LAPB link when the PSI and ACC are connected back to back using a
loopback cable. This problem won't happen when both the ACC and PSI
are started for the first time.

The patch for this problem is expected in MPE/iX 7.0 Express-1.

The best workaround is to be sure to also stop and restart the PSI LAPB
side whenever manually restarting the ACC.

For example, a PSI link is started and an ACC links is also started. After
link activity finishes and a disconnect occurs, when the ACC tries to
reconnect, the PSI side almost always dumps. To recover, the operator
should `:netcontrol stop` the PSI network, then `:netcontrol start` it
again.

When this problem happens, just stop and restart the PSI LAPB network.
There is no need to reboot the system.

JAGad49863 **ACC Driver stops communicating after some time during NS
reliability test.**

On first-release MPE/iX 7.0, WAN ACC (on both LAP-B and SDLC) may
experience hang problems while running heavy loads.

This problem happens during high loads (or more ports are in use). The hang happens when Driver has initiated DMA to the card and is waiting (indefinitely) for DMA completion from the card.

There is no workaround for this problem except to restart the driver and applications. The patch will be ready soon after release of MPE/iX 7.0. If you use ACC heavily, it is better to install the patch.

Mesa Diagnostics

JAGad12461 **<ctrl>y in TERMDSM hangs the current session**.

JAGad33025 **Mesa can't find Network IO cards that don't have a link started.**

In order for Mesa STM (system tool manager) to detect network IO cards, these cards must have a link started. Before starting STM it is necessary to do a `NETCONTROL start,net=<link>`. If STM is started prior to starting the link, the network IO cards will not be detected by STM. Certain diagnostic functions will not work once the links have been started.

JAGad33193 **Mesa and Driver architecture difference prevents LOOPBACK testing.**

A system with one LAN card can not diagnose the LAN card since it is in use.

JAGad36000 **cstm fails after installing from a system backup tape on MPE/iX 7.0.**

Restoring HFS Named Files and System Shutdown

It is possible for HFS-named files to be put into a degraded state if the system is halted soon after a RESTORE operation. The system halt could be due to a system failure, or the system operator halting the system with a **<cntl>B** TC/RS. When the system is halted in this manner, some or all of the HFS-named files, that have been recently restored with the `RESTORE` command, may suffer one or more of the following problems:

• Cannot be purged with the CI `:PURGE` command.

• Executables cannot be loaded.

• RESTORE cannot purge these files when attempting to replace them.

This problem can be avoided by properly shutting the system down with a **<cntl>A** `SHUTDOWN` command, and waiting for the final SHUT 6 message. If this problem is encountered, the degraded HFS files can be removed with the CI `:PURGELINK` command, or the shell's `rm` command.

JAGad36970 **No commands are available for DDS or DLT4000 Expert Mode.**

The expert tool is not working properly in 7.0 base. A patch will be available shortly after release.

Other

JAGad46600 ARM Server Missing for Autoraid in MPE/iX 7.0.

JAGad48163 Failed logon to Predictive server causes ldev 21 port hang.

Predictive Support

The version of the Predictive Support product at first release of MPE/iX 7.0 (C.70.00) has some important restrictions that you should be aware of:

- Predictive Support is unable to successfully dial out with a modem on an A- or N-Class system.

  This is due to a problem with the console/modem driver. All other platforms (9x8,9x9,99x) are able to successfully dial out using the modem, but they may experience problems opening the modem port if the remote end terminates the Predictive connection due to an error (phone line/carrier drops, etc.). When the console/modem port hangs, the only way to free it successfully is to reboot the system.

  Because of this problem, we are recommend disabling the datacomm on all A- and N-Class systems until a patch for the console/driver is available. The patch is expected to be available soon after the release of MPE/iX 7.0.

  To disable datacomm, do the following:

  1. Log on as MANAGER.SYS

  2. Run `psconfig.pred.sys`

  3. Select (type) **4** for CONFIGURATION options menu.

  4. Select (type) **7** for UTILITIES menu.

  5. Select (type) **3** for TRANSFER menu.

  6. Select (type) **1** to change TRANSFER status and type **D** to disable transfer capability.

  7. Type EXIT to exit the `psconfig` program.

  8. Respond **Y** when prompted to save the values.

NOTE   If `psconfig` puts you in what is known as "required fields mode" (prompting you for system serial, system model, etc.), exit with // followed by a carriage return. Then press return to exit when prompted. You can also press the break key and type ABORT.

Predictive will not run until the initial configuration has been performed. It is recommended that this configuration be performed by a CE.

To enable the datacomm transfers once again, simply perform the above steps, except at Step 6, type **E** to enable Predictive transfer capability.

WARNING	Disabling the Predictive datacomm will prevent Predictive from contacting the HP Response Center to report potential problems.

You should do the following on a daily basis, sometime after the daily scheduled Predictive run:

1. Log on as manager.sys.

2. Run `psconfig.pred.sys;info="pr ac"`.

   View the report for errors. Errors marked as Warning(RC) and Informational(RC) would normally be transmitted to the HP Response Center. If the errors are only reporting a new installation or ruleset updates, you can ignore them. Otherwise, you should contact the HP Response Center.

- The memory scanner (`MEMSCANP.PRED.SYS`) will not work on the A- and N-Class systems.

Because of this, the installation job has automatically disabled the memory scanner on MPE/iX 7.0 for A- and N-Class systems only. The version of Predictive initially released on MPE/iX Release 7.0 uses an older diagnostics library which does not support the A- and N-Class memory. We expect to release a version of Predictive with full STM diagnostic support when the first Express/PowerPatch is available for MPE/iX 7.0.

The installation job for the patch will be modified to reenable the memory scanner on all A- and N-Class systems. This means that Predictive will not be monitoring any memory errors. Use the cstm information log to view any memory error logs:

1. Log on as MANAGER.SYS

2. Execute the CSTM command.

3. Once you are at a cstm> prompt, enter the MAP command.

4. Look for the line that contains "MEMORY" under the product column.

5. Use the path number for MEMORY in a select command to select memory. The second column is the Path. For example, if the line with MEMORY is:

   ```
   18  192     MEMORY (90)
   ```

   Issue the command `SEL PA 192` to select memory.

6. Issue the command `info;wait`.

7. When the cstm prompt returns, enter the command `il` (the information log command can be shortened to il).

8. Press return to continue displaying the log.

   Look for entries under the heading Memory Error Log summary. Some single bit errors are normal. Contact the HP Response Center if you are unsure, or if there seems to be a lot of errors logged.

Software Product and System Patches

The following MPE/iX Core operating system patches have been rolled into C.70.00.

	MPEKXY5	MPELX37	MPELX72
MPEKX43	MPEKXY7	MPELX38	MPELX82
MPEKX86	MPELX07	MPELX39	MPELX87
MPEKXE9	MPELX10	MPELX40	MPELX89
MPEKXG6	MPELX13	MPELX41	MPELX97
MPEKXH3	MPELX14	MPELX42	MPELXA1
MPEKXJ4	MPELX15	MPELX44	MPELXA2
MPEKXL9	MPELX18	MPELX47	MPELXA7
MPEKXR9	MPELX24	MPELX51	MPELXB2
MPEKXV3	MPELX26	MPELX57	MPELXB8
MPEKXX2	MPELX30	MPELX59	MPELXC6
MPEKXX5	MPELX33	MPELX70	MPELXD5
MPEKXY0	MPELX34	MPELX71	

The following MPE/iX Express 2 patches have not been rolled into MPE/iX base release.

ARMLX35	SNMFDL0	MPEKXD4	MPELX98
SQLLX50	FTPFDP2	MPELX69	MPELXB0
TIXLXB5	MPEKXD2	MPELX86	
DTCFDP1	MPEKXD3	MPELX93	

Modem Connections on A- and N-Class

The modem that is supported on the Remote console port on the N-Class and A-Class systems is the MultiTech Model MT5634ZBA (HP part No: 0960-1074).

The physical connection is:

```
                                           N-Class/A-Class

   ┌──────────────┐           24542M          ┌──────────────┐
   │              │──▶                    ◀── │   Remote     │
   │    Modem     │                            │   console    │
   │              │──▶    or cable that   ◀── │   port       │
   └──────────────┘       comes with modem     └──────────────┘
```
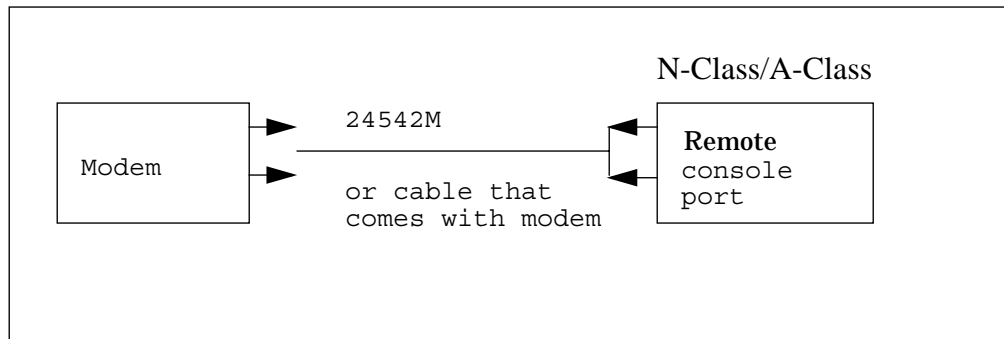
The cable is connected to the 9 pin Remote Console Serial port on the core I/O card. Connect the modem to the system and to the phone line. Make sure the modem is connected to the AC power and is turned on. There is a small switch on the side of the modem.

The following is the dialog to verify and configure the modem:

```
================================================

GSP Host Name:  <systemname>
GSP> CA


CA

====================================
```

This command allows you to modify the local and remote modem serial port configurations. Current configuration settings:

```
Local Console Serial Port bit rate: 9600 bits/s
Local Console Serial Port Flow Control: Software
Local Console Serial Port Terminal Type: hpterm
Remote Console Serial Port Modem Protocol: CCITT
Remote Console Serial Port Modem bit rate: 19200 bits/s
Remote Console Serial Port Modem Flow Control: Software
Remote Console Serial Port Modem Transmit Configuration Strings: Enabled
Remote Console Serial Port Modem Presence: always connected


Do you want to modify the Local Console Serial Port settings? (Y/[N])


Do you want to modify the Remote Console Serial Port Modem settings? (Y/[N])

====================================
```

If the parameters are not correct for the Remote Console Serial port, then answer "Y" to the second prompt. Here is the full dialog to change the configuration, if needed:

```
Do you want to modify the Remote Console Serial Port Modem settings? (Y/[N])Y

   Current Remote Console Serial Port Modem Protocol: CCITT
   Do you want to modify it? (Y/[N]) y

   Enter Modem Protocol (Bell / CCITT): c

   New Modem Protocol: CCITT
   Confirm? (Y/[N]): y

      -> Modem Protocol will be updated.


   Current Modem bit rate: 19200 bits/s
   Do you want to modify it? (Y/[N]) y

   Enter Modem bit rate (in bits/s): 19200
19200

   New Modem bit rate: 19200 bits/s
   Confirm? (Y/[N]): y

      -> Modem bit rate will be updated.


   Current Flow Control: Software
   Do you want to modify it? (Y/[N]) y

 Enter Flow Control (Hardware / Software): s


   New Flow Control: Software
   Confirm? (Y/[N]): y


      -> Flow Control will be updated.


   Transmit Configuration Strings: Enabled
   Do you want to modify it? (Y/[N]) n

   Modem Presence: always connected
   Do you want to modify it? (Y/[N]) n


Command execution may take 25 seconds.
      -> Settings have been updated.


GSP Host Name:  <systemname>
GSP>

=====================================
Now enable the remote console:
```

```
GSP Host Name:  <systemname>
GSP> er


ER


Current remote/modem port access: GSP


Do you want to modify this configuration? (Y/[N]) y


Remote/modem serial port access options:


    [L]ocked-out: Lock out all dial-in access.
    [G]SP       : Dial-in results in a GSP login.
    [S]ession   : O/S controls modem for dial-in and dial-out


GSP may page in any mode if modem is not in use.
O/S may use modem in Session mode only.


Please indicate the new mode for the remote/modem console serial port,
or <CR> to retain current value. Choose one of (L, G, S): g


   New remote/modem port access settings will be: GSP


  Confirm? (Y/[N]): y


Command execution may take 25 seconds.


Current remote/modem port access: GSP


GSP Host Name:  <systemname>
GSP>
=====================================
This should be all that is needed to enable the remote console modem port.

If you are using a terminal emulator on a PC, such as WRQ Reflections, then go
to the connection menu and select 'disconnect'. If the system is booted and
at the CI prompt, do the following:

:pause 10
+++
ath0
```

This will cause the local modem to drop the connection and leave the local console in the proper state. The "pause" command is entered so the modem escape string (+++) is not echoed to the remote modem. If the escape string is echoed back to the remote modem, then the modem connected to the system also goes offline and prevents the user from disconnecting the local modem. If needed, you can reset the modem from the GSP on the local or LAN console port with the GSP command "MR" for modem reset.

Critical Notice to Users of Manufacturing and Financial Software on MPE/iX

Attention all users of the HP Manufacturing Management II/eXegeSys eRP suite of applications (MM, PM, PCM, PO, SCM, FM, FA, FB) or any other module in that application family. Due to significant changes in the new MPE/iX operating system, version 7.0, customers using these applications WILL experience difficulties unless the appropriate patches to the application and/or Tools environment are installed after MPE/iX 7.0 is installed and before the applications are subsequently used. Failure to properly install the appropriate patches, obtainable from eXegeSys, as a follow-on the updating the operating system will render the application environment unusable.

Current eXegeSys support contract customers are entitled to the appropriate patches in conjunction with their contracts. The patches are available on the eXegeSys support web page. Support contract customers can also contact the eXegeSys Response Center for further information.

If you do not have a current support contract with eXegeSys Inc. and plan to update to MPE/iX 7.0 you must contact the eXegeSys Contract Support Team at (208) 542-0660 to make arrangements to acquire the appropriate patches.

For more information, visit the eXegeSys web site at http://www.exegesys.com, the eXegeSys support web site at http://www.exegesys.com/esupport/, or contact the eXegeSys Contract Support Team at (208) 542-0660.