

900 Series HP 3000 Computer Systems
MPE/iX HP 3000 Series 99X
Software Startup Manual



HP Part No. 36123-90025
Printed in U.S.A. 1994

R3404
E0494

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Preface

MPE/iX, Multiprogramming Executive with Integrated POSIX, is the latest in a series of forward-compatible operating systems for the HP 3000 line of computers.

In HP documentation and in talking with HP 3000 users, you will encounter references to MPE XL, the direct predecessor of MPE/iX. MPE/iX is a superset of MPE XL. All programs written for MPE XL will run without change under MPE/iX. You can continue to use MPE XL system documentation, although it may not refer to features added to the operating system to support POSIX (for example, hierarchical directories).

Finally, you may encounter references to MPE V, which is the operating system for HP 3000s, not based on PA-RISC architecture. MPE V software can be run on the PA-RISC (Series 900) HP 3000s in what is known as *compatibility mode*.

Conventions

UPPERCASE In a syntax statement, commands and keywords are shown in uppercase characters. The characters must be entered in the order shown; however, you can enter the characters in either uppercase or lowercase. For example:

COMMAND

can be entered as any of the following:

command Command COMMAND

It cannot, however, be entered as:

comm com_mand comamnd

italics In a syntax statement or an example, a word in italics represents a parameter or argument that you must replace with the actual value. In the following example, you must replace *filename* with the name of the file:

COMMAND *filename*

bold italics In a syntax statement, a word in bold italics represents a parameter that you must replace with the actual value. In the following example, you must replace ***filename*** with the name of the file:

COMMAND(*filename***)**

punctuation In a syntax statement, punctuation characters (other than brackets, braces, vertical bars, and ellipses) must be entered exactly as shown. In the following example, the parentheses and colon must be entered:

(*filename*):(*filename*)

underlining Within an example that contains interactive dialog, user input and user responses to prompts are indicated by underlining. In the following example, yes is the user's response to the prompt:

Do you want to continue? >> yes

Conventions (continued)

{ } In a syntax statement, braces enclose required elements. When several elements are stacked within braces, you must select one. In the following example, you must select either **ON** or **OFF**:

$$\text{COMMAND } \left\{ \begin{array}{l} \text{ON} \\ \text{OFF} \end{array} \right\}$$

[] In a syntax statement, brackets enclose optional elements. In the following example, **OPTION** can be omitted:

$$\text{COMMAND } \textit{filename} \text{ [OPTION]}$$

When several elements are stacked within brackets, you can select one or none of the elements. In the following example, you can select **OPTION** or *parameter* or neither. The elements cannot be repeated.

$$\text{COMMAND } \textit{filename} \left[\begin{array}{l} \text{OPTION} \\ \textit{parameter} \end{array} \right]$$

[...] In a syntax statement, horizontal ellipses enclosed in brackets indicate that you can repeatedly select the element(s) that appear within the immediately preceding pair of brackets or braces. In the example below, you can select *parameter* zero or more times. Each instance of *parameter* must be preceded by a comma:

$$[, \textit{parameter}] [\dots]$$

In the example below, you only use the comma as a delimiter if *parameter* is repeated; no comma is used before the first occurrence of *parameter*:

$$[\textit{parameter}] [, \dots]$$

Conventions (continued)

| ... | In a syntax statement, horizontal ellipses enclosed in vertical bars indicate that you can select more than one element within the immediately preceding pair of brackets or braces. However, each particular element can only be selected once. In the following example, you must select **A**, **AB**, **BA**, or **B**. The elements cannot be repeated.

$$\left\{ \begin{array}{l} \mathbf{A} \\ \mathbf{B} \end{array} \right\} | \dots |$$

... In an example, horizontal or vertical ellipses indicate where portions of an example have been omitted.

Δ In a syntax statement, the space symbol Δ shows a required blank. In the following example, *parameter* and *parameter* must be separated with a blank:

(parameter) Δ *(parameter)*

 The symbol  indicates a key on the keyboard. For example,  represents the carriage return key or  represents the shift key.

 *character*  *character* indicates a control character. For example, **Y** means that you press the control key and the Y key simultaneously.

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Overview

This manual contains procedures to boot, configure and start up your new operating system for the HP 3000 Series 990 and 992.

Your system comes from the factory with the fundamental operating software (FOS), system files, and purchased products pre-installed.

A factory preload tape (FPT) containing the software that was installed on your system is also supplied. If you are not able to complete all the procedures described in chapter 2, "Starting your System," it may be necessary to perform a recovery of your system software using the FPT. This recovery process should be only performed by your Hewlett-Packard representative or by trained System Management personnel. Instructions for recovering the factory preloaded software are in chapter 4, "Recovering your System"

Materials Needed to Complete Installation

This chapter contains information on resources you may need to complete your installation. Please read the paragraphs below and ensure that you have the manuals you need before you begin.

For additional in-depth information on system activity, system startup functions, and the system generator (SYSGEN), please have the following manual available for reference.

System Startup, Configuration, and Shutdown Reference Manual (32650-90042).

You may need to configure additional disks on your system. This is done using the VOLUTIL utility. If you need additional information on this utility, please ensure that you have the following manual available.

Volume Management Reference Manual (32650-90045)

For additional information on reviewing accounts and checking for passwords, guidelines on password formats, and other security information, please have the following manual available for reference.

Manager's Guide to MPE/iX Security (32650-90474)

DTS (Terminal I/O)

Ensure that you have the manual listed below available for reference before you continue. You may need to refer to it later in this manual. The chapter on configuring systems for host-based and PC-based management gives you NMMGR information on configuring terminal devices.

Configuring Systems for Terminals, Printers, and Other Serial Devices (32022-61000)

The manual below gives you additional information on DTCs and PC-based network management.

Additional products

You may have purchased some products that were installed at the factory, but need additional steps to make them fully functional. These products require manual steps to complete the installation.

If you have purchased any of the products listed below, please read this section before you continue.

The NS3000/XL product

If you have purchased the NS3000/XL product, please ensure that you have the following manuals available before you continue. These manuals provide you with information on configuring the links, transport, and DTCs on the system.

Using the OpenView DTC Manager Manual (D2355-90001)

The following manual provides details on NMMGR.

Using Node Management Services (NMS) Utilities (32022-61005)

NewWave Office/XL products

The NewWave Office/XL products include the products listed below. If you are installing any of these products, the following paragraphs contain information you need before you continue.

HP Open DeskManager

If you have purchased HP Open DeskManager, please ensure that you have these manuals available for reference.

HP Open DeskManager Administration (B3606-90001) *HP Open DeskManager User Reference Guide (B3606-90003)*

HP Resource Sharing

HP Resource Sharing requires that information from the NewWave Office software certificate, including a license code, be recorded on the system before connections to shared services are allowed. If you are installing HP Resource Sharing for the first time, or updating your license information, please locate your NewWave Office software certificate. If you do not have a NewWave Office software certificate, please contact your Hewlett-Packard representative to obtain a temporary license code and initiate replacement of your software certificate. The *NewWave Office Resource Sharing for MPE XL Manual (32597-90082)* provides information on installing either the software certificate information or temporary license code at the appropriate point in the installation process.

If you have already recorded the information from the software certificate in a previous installation or update, and your license information has not changed, you do not need to record the software certificate information again.

HP Information Access

If you are installing HP Information Access, please ensure that you have the following manual available. You will reference this manual during the manual installation of HP Information Access.

Information Access Server: System Management Manual (B1716-90018)

HP ALLBASE/4GL

If you have purchased the HP ALLBASE/4GL developer system, please ensure that you have the following manual available for reference.

HP ALLBASE/4GL Developer Administration Manual (30601-64001)

If you have purchased an HP ALLBASE/4GL run-time system, please ensure that you have the following manual available for reference.

HP ALLBASE/4GL Run-Time Administration Manual (30602-64001)

Starting the System

This section describes the steps necessary to boot and configure, add external disks, and complete the installation of any manually installed products.

Booting the System

1. Turn the system on. After 5 to 10 minutes of system activity, you should see a screen similar to the following.

```

                PDC - Processor Dependent Code
                  Version n.nn
                (c) Copyright 1990-1992
                  The Hewlett-Packard Company
                  All rights reserved

Total Memory:      256 MB
Total Processors:  2

Primary boot path  0/52.0.0.0.0.0.0
                  16 means BC 0 in PMB slot 0.
                  52 means I/O card in HP-PB slot 13.
                  0 means device ID of 0.

Alternate Boot Path: 0/36.1.0.0.0.0.0
Console/Keyboard Path: 0/44.0.0.0.0.0.0
```

Respond to the prompts as shown.

```
Continue with primary boot path ([y]/n/<path>) > Y
Trying boot path 0/52.0.0.0.0.0.0 ...

Booting ...

Interact with ISL (Y or N)?> Y

MMSAVE Version n.nn
DUMPAREA found, save main memory to disc
ISL loaded

ISL Revision v.uu.ff Month Day, Year

ISL>
```

If the above screen does not appear within 1 to 2 minutes, reset your system. Press the **CTRL** and B keys at the same time. When you see the CM prompt, connect to the service processor, and restart system as shown below. Do not respond to “Press any key within ten seconds to cancel boot with this configuration.”

```
CTRL B
CM>SP
SP>RS
```

```
Type Y to confirm your intention to execute this command (y/n): Y
```

The system will restart and display the Processor Dependent Code (PDC) screen shown in step 1.

Note The following step applies to all systems except the 9X8LX and 9X8RS series. If you have a 9X8LX or a 9X8RX, refer to steps 2a and 2b.

2. Run IOMAP and print or record the I/O configuration for your system. Ensure that all peripherals are powered on before you run IOMAP. This display shows all the path names of the I/O components. These path names will be added to the SYSGEN I/O configuration.

```
ISL> IOMAP
```

After several progress messages you see the IOMAP banner. Reply **N** to “Do you wish to modify any program parameters? [y,n] (n):”

2-2 Starting the System

Identify: Loop 1: All I/O components are being.....

Processor Identification:

.
. .
.

Path	Component Names	Type ID	HW Mod	SW Mod	Revisions Hdwr	Firm	Tests Avail
16	Bus Converter (Local Port)		7H	184H	CH	0	0
16/0	HP-PB GPIO Card	4H	4H	45H	0	0	
16/4	HP-PB SCSI Card	4H	4H	39H	0	0	ST LB
	Resetting SCSI Bus (Approx. 10 seconds) ...						
	SCSI bus address for host adapter is 7						
16/4.4.0	HPC1512A DDS tape drive	-	-	-	-	C600	ST
16/4.5.0	HPC1503A/HPC15208 DDS tape drive					4 09	ST
16/5	HP-PB Centronics Parallel Port	5H	4H	3AH	0	0	
16/12	20540-60001-002.3-LAN	2H	4H	52H	0	0	ST LB
16/36	HP-PB HPFL Card	4H	4H	41H	0	0	ST
16/36.0	2204FL disc drive		-	-	-	-	ST
16/36.1	2240FL disc drive		-	-	-	-	ST
16/36.2	2254HA FL disc drive		-	-	-	-	ST
16/44	HP-PB Console/LAN Card	2H	54H	50H	0	0	ST LB
	System Console is connected to this card						
16/52	CIO Channel Adapter	8H	5H	10H	0	0	ST LB
16/52.0	HP-IB card	2H	-	-	6	2912	ST LB
16/52.0.0	7980 mag tape unit	180H	-	-	-	-	
16/50	Bus Converter (Remote Port)	1H	7H	102H	CH	0	
1							
18	Bus Converter (Local Port)		7H	184H	CH	0	0
28	Memory Controller (511 M bytes)	1H	5H	9H	1	0	LB
40	Memory Controller (0 M bytes)	1H	5H	9H	1	0	LB
48	Native Processor	0H					
56	Native Processor	0H					

Identify loop 1 (1H) complete.

Do you want to exit this program and return to ISL? [y,n] (n): Y

IOMAP Exiting.

Switching the Console back to the standard Console Path...

Done.

ISL>

- a. For 9X8LS and 9X8RX systems, use the following procedure to list your system hardware:

- i. Type the following at the ISL prompt to get an ODE prompt:

```
ISL> ODE
```

- ii. Type the following at the ODE prompt to get a MAPPER prompt:

```
ODE> MAPPER
```

- iii. At the MAPPER prompt type:

```
MAPPER> RUN
```

- b. To exit MAPPER after you modify or accept the information displayed, you must exit out of MAPPER and ODE to get back to the ISL prompt. For example:

```
MAPPER> EXIT
```

```
ODE> EXIT
```

```
ISL>
```

3. Start the system from the disk. The configuration for your system was preloaded at the factory and is configured for the number of internal disks that you purchased with your system.

```
ISL> START NORECOVERY
```

The system displays a series of startup messages, and you are prompted to confirm the date and time, as shown below.

If the date and time displayed are accurate, enter Y. If not, enter N, and enter the correct date and time when prompted. Time must be entered in a 24-hour format (e.g., 5:00 p.m. is entered as 17:00). Seconds default to 00 if not specified.

```
MPE/iX launch facility
Initialize_genesis - Version ; nnnnnnn.nnnn
TUE, AUG 11, 1991, 10:20:03 AM (y/n)? Y or N
[CMUX_DAM] n n n n
Initialize genesis completed
```

For the next 5-6 minutes, startup and initialization messages are displayed similar to the screen shown below.

```

Initialize genesis completed.
Create Console Messages kso completed.
Initialize memory manager completed.
.
.
.
SESSION Scheduling Initialized
Initiate Operator Logon
JOB Scheduling Initialized
Successfully launched diagnostic monitor process.

```

4. Log on to the system.

```

:HELLO MANAGER.SYS
:STREAMS streams device
:SPOOLER LP;START

```

5. A default configuration with the internal disks configured was loaded onto your system at the factory. If you have any external disks, or other devices, you must change this default configuraton to include these components. Use SYSGEN to configure them into your system. If you need additional information on the SYSGEN utility, please refer to *System Startup, Configuration, and Shutdown Reference Manual* (32650-90042).

If you do not have any external disks, or other devices , continue with “Configuring System Disks Using VOLUTIL”; otherwise follow the steps below.

```

:SYSGEN
sysgen><u>io
```

6. Print the default configuration to the screen and record the configuration. This configuration should be changed to represent the actual configuration as shown on IOMAP.

```

io><u>LP
```

7. Using the commands in io, make any changes to your configuration. After you have completed the configuration changes, hold the new configuration and exit:

```

io><u>HOLD
io><u>EXIT

```

8. Save this new configuration.

```

sysgen><u>KEEP CONFIG
Purge old config? YES
sysgen><u>E

```

9. Shut down the system by pressing the **CTRL** and A keys at the same time, then typing SHUTDOWN as follows:

```

<u>CTRL A
=<u>SHUTDOWN

```

```
Shutdown of user process begins. (Shut 1)
Shutdown of user process begins. (Shut 2)
.
.
.
Shutdown of operating system complete. (Shut 6)
```

There will be several shutdown messages similar to those shown above.

10. After the last shutdown message, (Shut 6), restart the system by pressing the **CTRL** and B keys at the same time. Respond to the prompts as shown. You must connect to the service processor before you can restart the system.

```
CTRL B
CM>SP
SP>RS
```

```
Type Y to confirm your intention to execute this command (y/n): Y
```

Do not respond to “Press any key within 10 seconds to cancel boot with this configuration.”

If the system does not respond to the **CTRL** B within ten seconds power the system off and then back on again, and repeat step 9.

11. Confirm that you want to continue the boot from the primary boot path. Reply Y to “Interact with ISL?”
12. Start the system from the disk at the ISL> prompt.

```
ISL>START NORECOVERY
```

13. Log on to your system.

```
:HELLO MANAGER.SYS;HIPRI
:STREAMS streams device
:SPOOLER LP;START
```

A welcome message appears. After the welcome message, you see the session prompt (:).

Configuring System Disks Using VOLUTIL

If you have additional disks on your system, use the VOLUTIL utility to define and initialize them.

1. Check the status of the disks.

```
:DSTAT ALL
```

2. If your disks are not in a Master or Member status, use the following VOLUTIL commands to change the status.

```
:VOLUTIL
```

```
VOLUTIL:SCRATCHVOL n
```

```
*Verify: Scratch volume on ldev n [Y/N]? Y
```

```
VOLUTIL:NEWVOL MPEXL_SYSTEM_VOLUME_SET:MEMBERn n 100 100 DISC
```

```
*Verify: Initialize new member volume . . .Membern on ldev n? Y
```

```
VOLUTIL:EXIT
```

The *n* in the above commands refers to the address of the disk you are adding to your system. Repeat these commands to add additional disks to your system. Replace *n* with the address of the additional disk(s).

3. When you have configured all disks onto your system, enter the DSTAT ALL command again to ensure the disks are mounted.

```
:DSTAT ALL
```

Installing Additional Products

There are several Hewlett-Packard products that require additional steps before they are fully installed. These products and their installation instructions are located in chapter 3, “Installing/Configuring Additional Products.” The software for these products is pre-loaded onto the internal disk when your system comes from the factory; however, additional installation steps are needed for some products before they are fully functional.

Use the following steps to determine whether you have purchased any of these products.

1. If you are not logged on as MANAGER.SYS, log on as follows:

```
:HELLO MANAGER.SYS
```

2. Enter the LISTF command to determine if the file SPNAMES exists on your system.

```
:LISTF SPNAMES.PUB.SYS
```

If no file is found, you have not purchased any of these products. Continue with “Configuring Data Communication,” on the following page.

3. If the SPNAMES file is found, enter the following command to display the contents of the file to the screen.

```
:PRINT SPNAMES.PUB.SYS
```

4. Record the names of the products listed on the lines below. These products require additional steps to be performed before they are fully functional. If you purchased NS3000/XL products (e.g., NS/XL NetWork Services) there are no additional manual steps required.

Refer to chapter 3, “Installing Non-Customer Installable Products” for instructions to complete your installation. When you have completed the installation of these products, continue with “Configuring Data Communication” below.

Note If you purchased the NewWave Office products, HP Resource Sharing or HP Information Access, you must configure your datacomm before you can install these products. Continue with “Configuring Data Communication.” You will be referred to chapter 3 to complete the installation of these products.

Configuring Data Communication

You must configure your data communication because the information is used by the data communication terminal controller(s) (DTC) to allow terminal communication.

1. Log on and create a new file from the sample file NMSAMP1.PUB.SYS. Follow the steps below.

```
:HELLO MANAGER.SYS  
:FILE CONFIG=NMCONFIG.PUB.SYS;DEV=1  
:FCOPY FROM=NMSAMP1.PUB.SYS;TO=*CONFIG;NEW
```

2. Use NMMGR to modify the DTS configuration in NMCONFIG.

Note NMSAMP1 does not contain a value in the physical path field of the DTSLINK screen. When you are in NMMGR, enter the value 56 in the physical path field. You must also supply the local node name.

If you have a PC-based network management, configure the DTC(s) following the installation and configuration procedures described in the *Using the OpenView DTC Manager Manual* (D2355-90001). For more information on host-based network management, refer to the *Configuring Systems for Terminals, Printers and Other Serial Devices Manual* (32022-61000). For more information on NMMGR, refer to *Using Node Management Services (NMS) Utilities* (32022-61005).

If you have purchased the MPE/iX NS product, use the “guided configuration” within NMMGR to configure NS. You must also use NMMGR to validate the DTS configuration

and the MPE/iX NS product (if it is on your system). When you have completed the validation in NMMGR, exit the program

```
:NMMGR
```

After you have made your changes to the datacomm configuration, NMMGR automatically runs SYSGEN to cross validate the system and datacomm configuration. You can then exit NMMGR.

3. Shut down the system.

```
CTRL A  
=SHUTDOWN
```

```
Shutdown of user process begins. (Shut 1)  
Shutdown of user process begins. (Shut 2)  
.  
.  
.  
Shutdown of operating system complete. (Shut 6)
```

There will be several shutdown messages similar to those shown above.

4. After the last shutdown message, (Shut 6), restart the system by pressing the CTRL and B keys at the same time. Respond to the prompts as shown. You must connect to the service processor before you can restart the system.

```
CTRL B  
CM>SP  
SP>RS
```

```
Type Y to confirm your intention to execute this command (y/n): Y
```

Do not respond to “Press any key within 10 seconds to cancel boot with this configuration.”

If the system does not respond to the CTRL B within ten seconds power the system off and then back on again, and repeat step 5.

5. Confirm that you want to boot the system from the primary path.

```

Continue with primary boot path ([y]/n/<path>) >Y

Trying boot path 0/52.0.0.0.0.0.0

Booting...

Interact with ISL (Y or N)?> Y

MMSAVE Version n.nn
DUMPAREA found, save main memory ot disc
ISL loaded

ISL Revision v.uu.ff Month Day, Year

ISL>

```

When the system is up, power cycle all DTCs, or perform a reset using TERMDSM in SYSDIAG (you only need to do this for host-based DTCs).

Start the system from the disk:

```
ISL>START NORECOVERY
```

Note Rebooting the system enables the validated datacomm configuration to take effect on the system.

Power cycling each DTC enables the new download file and the DTC configurations to be downloaded to the DTCs. The DTCs will not work if this step is not completed.

The system displays a series of startup messages, and you are prompted to confirm the date and time, as shown below.

If the date and time displayed are accurate, respond Y. If not, respond N, and enter the correct date and time when prompted. Time must be entered in a 24-hour format (e.g., 5:00 p.m. is entered as 17:00). Seconds default to 00 if not specified.

```

MPE/iX launch facility
Initialize_genesis - Version ; nnnnnn.nnnn
TUE, AUG 11, 1993, 10:20:03 AM (y/n)? Y/N
[CMUX_DAM] n n n n
Initialize genesis completed

```

For the next 5-6 minutes, startup and initialization messages are displayed similar to the screen shown below.

```
Initialize genesis completed.
Create Console Messages kso completed.
Initialize memory manager completed.
      .
      .
      .
SESSION Scheduling Initialized
Initiate Operator Logon
JOB Scheduling Initialized
Successfully launched diagnostic monitor process.
```

Note NS3000/XL now includes information files that describe the supported set of servers and services. These information files are used to build a configuration file called DADCONF.NET.SYS. Be sure to perform the following steps. Wait until the jobstream is complete before starting step 7 below.

```
:HELLO MANAGER.SYS; HIPRI
:SPOOLER LP;START
:STREAMS streams device
:LIMIT 1,1
:STREAM JCONFJOB.NET.SYS
```

Note If you have the NewWave Office products, HP Resource Sharing or HP Information Access, please go to chapter 3 to complete your installation or update. After you have completed the instructions in chapter 3, continue with step 7 below.

6. If you have NS3000/XL configured, bring up the configured network interfaces. Be sure to use the same names for the network interfaces that were used in the configuration.

For example, if you have configured network interfaces with the names LOOP and LAN1, enter:

```
:NETCONTROL START;NET=LOOP
:NETCONRTOL START;NET=LAN1
:NSCONTROL START
```

If you have configured only the router network interface with the name ROUTER1, enter:

```
:NETCONTROL START;NET=ROUTER1
:NSCONTROL START
```

Setting Passwords

1. Use the following commands to assign passwords to the account SYS, user MANAGER, and group PUB for MANAGER.SYS,PUB.

:ALTACCT SYS;PASS=*password*

:ALTUSER MANAGER;PASS=*password*;HOME=*homegroup*

:ALTGROUP PUB;PASS=*password*

2. Hewlett-Packard also recommends that you set passwords for the following accounts and users. These accounts and users are currently created and/or modified during the installation process, regardless of the type of products on the SUBSYS tape. You may find that some of these accounts do not contain files after you complete the installation.

- CONV
- CLL
- HPOFFICE
- HPPL85
- HPPL87
- HPPL89
- INDHPE
- ITF3000
- RJE
- SUPPORT
- TELESUP
- SNADS
- SYSMGR
- HPOPTMGT
- HPSKTS
- HPNCS
- NETWARE
- SYS
- HPLANMGR
- HPX11

The following users are created and/or modified to have OP and/or PM or SM capabilities. Hewlett-Packard recommends that you set passwords for these users.

- MANAGER.SYS
- MGR.HPOFFICE
- FIELD.HPPL85
- MGR.TELESUP

- MGR.SNADS
- MGR.SYSMGR

Record the passwords and keep them in a secure place.

If you wish additional information on system security, please consult the *Manager's Guide to MPE/iX Security* (32650-90474).

Creating a Backup Tape

Before you begin normal operations, it is important that you back up your new system. The backup command file shown below calls an indirect file which will back up your complete system on one tape. If you want information on the contents of this file, please refer to chapter 4, "Recovering your System."

Follow the steps below to back up your system.

1. If you are not logged on as MANAGER.SYS, do so now.

```
:HELLO MANAGER.SYS
```

2. Use the SYSGEN utility to create your recovery tape.

```
:SYSGEN
```

3. Load a blank read-write cassette tape into the DDS tape drive. Ensure that the tape is a write-enabled tape. Wait until the tape is fully loaded before you continue (both lights on the DDS drive are lit).

```
sysgen> TAPE STORE=^FSETLIST
```

4. Reply to the tape request at the system console.
5. This process can take up to two hours, depending on the number of files you have on your system. A listing of the files that are stored is written to a spoolfile, `0nn.OUT.HPSP00L`. If you have a printer, this listing will be printed in addition to being written to the spoolfile. When the recovery tape has completed, return to the session prompt (:).

```
sysgen> EXIT
```

6. Move the cassette tab to read only mode. Label the tape and store it with a listing of your backup files.

Setting Job and Session Limits

Set job and session limits to allow users and jobs to log on.

Substitute appropriate values for *n* and *nn*. The first value sets the maximum number of jobs; the second value sets the maximum number of sessions.

```
:LIMIT n,nn
```

Your system is ready for normal production. Record this installation in the system logbook.

Installing Non-Customer Installable Products

The following products need additional steps to be performed before they are fully functional. Your Hewlett-Packard Customer Engineer will complete the installation of these products for you. Please contact him for assistance.

Installing or Updating HP Open DeskManager

The HP Open DeskManager software is now installed on your system; however, before attempting to use the product, there are some steps that must be completed.

- If you are installing HP Open DeskManager for the first time, you must create and configure your databases. Refer to chapters 8 and 9 of the *HP DeskManager Administration* manual (B3606-90001) for details on how to do this.
- The following UDC files are supplied with HP Open DeskManager:

`OPERUDC.MAILLIB.HPOFFICE` - this holds the operator commands

`MAILUDC.MAILLIB.HPOFFICE` - this holds the user commands

The level at which these UDCs are set depends upon the guidelines followed at your site; however, Hewlett-Packard recommends setting the operator commands at the user level for the user `MGR.HPOFFICE`. To do this, enter the following commands:

```
:HELLO MGR.HPOFFICE,MAILLIB
:SETCATALOG OPERUDC.MAILLIB.HPOFFICE
```

Remember to include all other UDCs that are to be set at the same level in the `SETCATALOG` command

The following seven items may apply to your system. Please read them and follow the instructions, if they are applicable.

- The American version of the product is supplied as default, however, if a British version is to be installed, enter the following command:

```
:STREAM UKDICT.MAILJOB.HPOFFICE
```

- If you are running HP Open DeskManager on a *standalone* system, and Distributed Systems (DS) or Network Services (NS) are NOT installed, enter the following command:

```
:STREAM DSNSSEGS.MAILJOB.HPOFFICE
```

- It is possible to improve the performance of HP Open DeskManager by creating an Object Code Translated (OCT) version. Read the file `OCTINSTL.MAILJOB.HPOFFICE` for detailed instructions on how to perform this translation.
- If Lotus cc:Mail or Microsoft Mail clients are to be used with HP Open DeskManager, a manual adjustment to the `UALCONFIG.MAILCONF.HPOFFICE` configuration file is necessary.

Refer to chapter 2 in the *HP Open DeskManager Administration* manual (B3603-90001) for details.

- If the HP DeskNote text editor is to be used, a manual adjustment may be required to the HP DeskNote global configuration file to enable spell checking. See chapter 2 in the *HP Open DeskManager Administration* manual (B3603-90001) for details.
- The Garbage Collector process (if used) needs to be re-enabled. See chapter 2 in the *HP Open DeskManager Administration* manual (B3603-90001) for details.
- If you are upgrading an existing version of HP DeskManager, the old HP DeskManager job stream files will be overwritten during the installation process. If you have customized any of these job stream files, you must re-apply your changes to the new files. **DO NOT** overwrite the new files with your old files. For a complete list of these job stream files, please refer to chapter 2 of the *HP Open DeskManager Administration* manual (B3606-90001).

Installing HP ALLBASE/4GL

To complete the installation of HP ALLBASE/4GL some additional steps must be performed.

These installation procedures must be completed on a terminal other than the system console. HP ALLBASE/4GL cannot be run on the system console.

To install new HP ALLBASE/4GL systems

To complete the installation of the HP ALLBASE/4GL Developer system or the HP ALLBASE/4GL Run-Time Environment, perform the following steps after the AUTOINST has run.

1. Create the account in which you want to use HP ALLBASE/4GL. You can select any name for the account, but we suggest that you use the name HP4GL for the HP ALLBASE/4GL Developer System, and HP4GLR for the HP ALLBASE/4GL Run-Time Environment.

Developer

```
:HELLO MANAGER.SYS  
:NEWACCT HP4GL,MGR;PASS=password;CAP=AM,AL,GL,ND,SF,BA,IA,PH
```

or

Run-Time

```
:HELLO MANAGER.SYS  
:NEWACCT HP4GLR,MGR;PASS=password;CAP=AM,AL,GL,ND,SF,BA,IA,PH
```

2. Log on to the new account and execute the following command file:

Developer

```
:HELLO MGR.HP4GL  
:HP4BLD.HP4GL.SYS
```

or

3-2 Installing Non-Customer Installable Products

Run-Time

```
:HELLO MGR.HP4GLR  
:HP4BLDR.HP4GLR.SYS
```

HP4BLD (or HP4BLDR) will create several groups within the account. After the groups are created, the utility copies several files from the SYS account into the newly created groups.

To install the HP ALLBASE/4GL environment

The default HP ALLBASE/4GL installation assumes that the MPE/iX system is configured to support the American version as well as the “native computer” language.

To run HP ALLBASE/4GL on a terminal that supports the line-drawing character set, set the MPE/iX variable HP4TERM as follows:

```
:SETVAR HP4TERM "HPL"
```

Refer to the *HP ALLBASE/4GL Developer Administration Manual* (30601-64001) or the *HP ALLBASE/4GL Run-Time Administration Manual* (30602-64001) for further information on setting up the HP ALLBASE/4GL environment.

HP ALLBASE/4GL is now ready to be run.

Installing SNA IMF/XL

You must perform some additional steps before SNA IMF/XL (HP30293) is fully functional. Follow the steps below using the TTSINST command file to complete the installation. You can also access the online instructions by typing TTSINST.PUB.SYS at the colon prompt without specifying any parameters.

To install the English Language Option for the United States and European sites, type the following commands:

```
:HELLO MANAGER.SYS  
:TTSINST 000
```

Confirm that you want to complete the installation:

```
SNA IMF> Begin installing the English option (Y/N)? Y  
SNA IMF> The English language option is now installed.
```

To install the Asian Language Option, type the following commands:

```
:HELLO MANAGER.SYS  
:TTSINST
```

Read the instructions that appear on your screen, then enter the following:

```
:TTSINST 221    ** 221 is the language option parameter **
```

Confirm that you want to complete the installation:

```
SNA IMF> Begin installing the Japanese option (Y/N)? Y
SNA IMF> The Japanese language option is now installed.
```

Installing HP Predictive Support

If this is the first time you have purchased HP Predictive Support, your Hewlett-Packard Customer Engineer will assist you with the installation and supply you with the *HP Predictive Support User's Guide* (50779-90001)

Installing NewWave Office Products

NewWave Office products include HP Open DeskManager, HP Resource Sharing, and HP Information Access. Instructions for installing HP Information Access and HP Resource Sharing are listed below. Instructions for installing HP Open DeskManager are listed in the beginning of this section.

To install HP Resource Sharing

Caution If you attempt to connect a PC to shared resources before you complete the steps listed above, you will have to restart the system and perform these steps again. The message “Resource Sharing Registration Completed” must appear on the console before you can connect a PC to shared resource.

1. License information from the NewWave Office Software Certificate must be recorded on the system before connections to shared resources can be allowed. You do not need to record this information again if you have recorded it previously, and it has not changed.

If you need to update license information, or are recording it for the first time, please refer to the “Installation” chapter in the *NewWave Office Resource Sharing for MPE XL Manual* (32597-90082). The “Installation” chapter provides the instructions for Recording License Information from the software certificate, with the NWOLC.PPC.SYS program.

2. Stream JPDINSTL.NWOCONF.HPOFFICE to complete the installation. Watch for the console message, “Resource Sharing Registration Completed” to verify that HP Resource Sharing is ready to receive connection requests from PCs.
3. If you have HP Information Access, continue below; otherwise, return to step 7, page 2-11.

To install HP Information Access

Please refer to the *Information Access Server: System Management Manual* (B1716-90018) for installation instructions.

After you have completed your HP Information Access installation, please return to step 7, page 2-11.

3-4 Installing Non-Customer Installable Products

Recovering Your System Using the HP Factory Preload Tape (FTP)

The procedure described in this chapter is *not* part of the normal installation process for starting your system. Recovering your system using the factory preload tape (FPT) should be performed only by system management trained personnel or a Hewlett-Packard Service Representative. This procedure may result in loss of user data if it is performed inappropriately.

Determining System Recovery Using the HP FPT

In the unlikely event that your system does not boot when you turn it on, or does not respond to the **CTRL** B reset, it is necessary to confirm that the system is connected correctly and is receiving power. If you have confirmed that the system is connected correctly, and the boot path does not appear, you may need to use the factory preload tape (FPT) to recover your system.

Recovering Factory Supplied Software and I/O Configurations

If your Hewlett Packard supplied software was factory loaded onto your system, a tape containing a copy of the software was also supplied with your system. This tape, referred to as a factory preload tape (FPT), provides you with a complete system backup prior to beginning the installation process. This tape has been customized to your order and contains system files, store files, and default configuration files.

One of the final installation steps provided in this chapter is to generate a system recovery tape reflecting changes resulting from the installation and configuration process. Whenever possible, this newly generated recovery tape should be used in place of the factory preload tape (FPT) for recovery purposes.

This chapter describes the steps necessary to recover the HP 3000 Series 990 or 992 system using the FPT. This entire process takes approximately 2 to 3 hours, depending on the number of software applications to be installed.

Preparing Your System for Recovery

1. Power on the system.
2. Insert the FPT for this system into the DDS device. Ensure that the cassette is a read-only tape. (The tab on the right read edge should be pushed to the left of the cassette so the recognition hole is open). The load sequence is finished when the cassette light remains on.
3. Press the CTRL and B keys at the same time. You will see a **CM>** prompt on your screen. Connect to the service processor and restart the system.

CM>SP

SP>RS

Type Y to confirm your intention to execute this command (y/n): Y

Do not respond to “Press any key within 10 seconds to cancel boot with this configuration.”

If the system does not respond within ten seconds power, the system off and then back on again.

4. After the console screen displays 5 to 10 minutes of restart messages, the system displays a screen similar to the following. Respond **N** to “Continue with primary boot path?” prompt.

```
PDC - Processor Dependent Code
      Version n.nn
      (c) Copyright 1990-1192
      The Hewlett-Packard Company
      All rights reserved
```

```
Total Memory:      256 MB
Total Processors:   2
```

```
Primary boot path   0/52.0.0.0.0.0.0
                    0 means BC 0 in PMB slot 0.
                    52 means I/O card in HP-PB slot 13.
                    0 means device ID of 0.
```

```
Alternate Boot Path: 0/36.1.0.0.0.0.0
Console/Keyboard Path: 4/44.0.0.0.0.0.0
```

```
Continue with primary boot path? ([y]/n/<path>) > N
```

5. A Main command menu appears on your screen. Enter B to display the Boot menu. Enter A to boot from the alternate boot path. Confirm that you want to continue booting from the alternate boot path. Enter Y to “Interact with ISL?”

```
Continue with alternate boot path? ([y]/n/<path>) > Y
```

```
Booting ...
```

```
Interact with ISL (Y or N)?> Y
```

```
ISL Revision v.uu.ff Month Day, Year
```

```
ISL>
```

After responding Y to the previous questions, the system boots from the FPT. After the system has completed the loading process, the ISL> prompt is displayed.

To install with the HP FPT

1. Enter the `INSTALL` command to install the HP 3000 Series 990 or 992 with the FPT.

```
ISL>INSTALL
```

While the installation process is taking place, it is important that you monitor the process at the console. Note any errors that may be reported to the screen for future action.

2. Following some tape activity (up to 3 minutes), you are prompted to confirm the date and time, as shown in the following screen. If the date and time displayed are accurate, respond `Y`; if no, respond `N`, and enter the correct date and time when prompted. Time must be entered in 24-hour format. (For example, 5:00 pm is entered as 17:00.) Seconds default to 00 if not specified.

```
MPE/iX launch facility
INSTALL x.nn.nn Copyright (c) Hewlett-Packard 1987. .
INSTALL -- MPE-XL disc image builder -- version 1.0
Initialize_genesis - Version: nnnnnn.nnnn
TUE, FEB 12 1994, 10:20:03 AM (y/n)? Y/N
[CDM] n n n n
Initialize memory manager completed.
Beginning INSTALL . . .
```

It takes 10 to 20 minutes to restore the files from the FPT. During this time, the system displays initialization and restore messages. Do not respond to “Press any key within 10 seconds to cancel boot with this configuration.”

```
END of LOAD(install).
Auto boot in progress.
.
.
.
Continue with primary boot path? ([y]/n/<path>) > Y

Trying boot path 0/52.0.0.0.0.0.0

Booting ...

Interact with ISL? (y/[n])> Y

MMSAVE Version n.nn
DUMPAREA found, save main memory to disc
ISL loaded

ISL Revision v.uu.ff Month Day, Year

ISL>
```

3. Once the system reboots, you will see the ISL> prompt. Start the system from the disk, using the configuration name that is most appropriate for your system. Please consult appendix A for a listing of the available sample configurations.

```
ISL>START NORECOVERY;GROUP=configname
```

4. The system displays a series of startup messages, and you are again prompted to confirm the date and time. If you do not respond Y or N within 15 seconds, the system assumes the displayed date and time by default and continues with the startup.

If the date and time displayed are accurate, respond Y. If not, respond N and enter the correct date and time. Time must be entered in 24-hour format. (For example, 5:00 pm is entered as 17:00. Seconds default to 00 if not specified.)

```
MPE/XL launch facility
Initialize_genesis - Version: nnnnnn.nnnn
TUE, FEB 12, 1991, 10:20:03 AM (y/n)? Y/N

[TMUX_CDM] n n n n
Initialize genesis completed.
```

For the next few minutes, startup and initialization messages are displayed, similar to the screen shown below:

```
Initialize genesis completed.
Create Console Messages completed.
Initialize memory manager completed.
Initialize resident kernel completed.
.
.
.
Protection of system files has been completed.
.
.
.
SESSION Scheduling Initialized.
Initiate Operator Logon.
JOB Scheduling Initialized.
Successfully launched diagnostic monitor process.
```

To complete the recovery using the HP FPT

1. When the recovery process is complete, log on to the console and start the spooler and streams device.

```
:HELLO MANAGER.SYS,INSTALL;HIPRI
:SPOOLER LP;START
:STREAMS streams device
```

Note During the log on to the INSTALL group, you may see the following message:
WARNING: GROUP OUT OF CONNECT TIME (CCIWARD 1494)
You can ignore this message, it does not affect your install process.

2. Run `SYSGEN` and keep the boot configuration as follows:

```
:SYSGEN  
sysgen> KEEP CONFIG  
Purge old configuration (yes/no)? Y  
Keep configuration anyway (yes/no)? Y  
sysgen> EXIT
```

3. If you purchased additional disks, you may need to add them to your system. Run `DSTAT` to check the status of the volume disks on your system.

```
:DSTAT ALL
```

4. If your volumes are not in a Master or Member status, use the following `VOLUTIL` commands to change the status of the volume disks to Master or Member.

```
:VOLUTIL  
VOLUTIL:SCRATCHVOL n  
*Verify: Scratch volume on ldev n [Y/N]? Y  
  
VOLUTIL:NEWVOL MPEXL_SYSTEM_VOLUME_SET:MEMBERn n 100 100 DISC  
*Verify:Initialize new member volume . . MEMBERn on ldev n?Y  
  
VOLUTIL:EXIT
```

The *n* in the above commands refers to the address of the disk you are adding to your system. Repeat these commands to add additional disks to your system. Replace *n* with the address of the additional disk(s).

5. When you have completed adding the volumes to your system, run `DSTAT` again to ensure that all volumes have been mounted.
6. Remove the cassette from the tape drive and then re-insert it into the same DDS device in order for the cassette to rewind. Wait for the drive to load the cassette and perform a short load sequence. The load sequence is complete and the cassette is online when the cassette light is on.
7. At the system prompt, run `HPINSTAL` to update the system with the new FPT. Be sure to use the `INFO` parameter `RECOVERY` when you enter the following command.

```
:RUN HPINSTAL.INSTALL;INFO="RECOVERY"
```

```
MPE/XL HPINSTAL x.nn.nn (C) HEWLETT-PACKARD CO.
```

```
Mount the CSLT and put the tape/DDS drive online  
the HP-supported software files will be restored
```

```
*****Please stand by *****  
The HP-supported software files are being restored.
```

Note that the FPT is represented by the term CSLT on the console screen.

8. Reply to the tape request by pressing **CTRL** and A to get the = prompt. The reply should include both the PIN number and the LDEV number of the tape drive.

```
? . . . /#Snn/nnn/LDEV# "SLTSTORE" ON TAPE(NUM)?
```

```
=REPLY nnn,LDEV#
```

No additional input is required. The HPINSTAL utility restores the program/data files from the Store component of the FPT, streams SUPACCT to create the appropriate account structure, and streams installation files (if any). When these processes are complete, HPINSTAL lists any subsystem products that require additional manual steps to complete the installation. The screen you see is similar to the following:

```
*WARNING -- This program cannot install  
the products listed below. (INSTWARN #1)  
product name  
product name  
.  
.  
.
```

These product names are written to a file you will use when you bring the system up in chapter 2.

When the HPINSTAL process is completed, you see the following message on the screen.

```
The installation is now complete
```

```
END OF PROGRAM
```

Completing Final Recovery Tasks

When the installation has successfully completed, you must perform several manual steps before your system is returned to the factory preload condition.

1. Purge the spoolfiles that HPINSTAL created by entering the following command at the prompt:

```
:SPOOLF @;DELETE
```

2. Purge the INSTALL group from your system by typing the following commands and responding Y to the system question to purge the group.

```
:CHGROUP PUB  
:PURGEGROUP INSTALL
```

3. Create an indirect file to provide a single-tape backup procedure for the system.

```
:EDITOR  
\A  
 1 @.@.SYS,@.@.@-@.@.SYS;DIRECTORY;SHOW=OFFLINE  
 2 //  
  
\K FSETLIST  
\EXIT
```

4. Create a new user, OPERATOR.SYS, and OPERATOR UDC:

```
:NEWUSER OPERATOR.SYS;HOME=PUB;CAP=IA,BA,OP,PH,SF,ND  
:SETCATALOG HPOPUDC.MPEXL.SYS;USER=OPERATOR.SYS
```

5. Shut down the system.

```
(CTRL) A  
=SHUTDOWN
```

You have completed the recovery of your system. It is now identical to the system that was shipped from the factory. Remove the FPT and store it in a safe place. You are now ready to prepare the system for use.

If you have read the information contained in chapter 1, “Overview,” proceed to chapter 2, “Starting the System” and follow the steps to prepare your system for use.

Configname Table

Table A-1. Configname Table

SYSTEM	HP-IB Group	HP-FL (Alink) Group
Series 990	CONFIG990	ALINK990
Series 992/100	CONFIG992	ALINK992
Series 992/200	CONFIG992	ALINK992
Series 992/300	CONFIG992	ALINK992
Series 992/400	CONFIG992	ALINK992

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