Asian Printing Support for OpenVMS Version 1.0 Installation Guide

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This document contains instructions for installing the Asian Printing Support kit on the OpenVMS/Hanzi, OpenVMS/Hanyu or OpenVMS/Hangul operating systems. It also provides hints for connecting various supported printers. This document applies to Asian Printing Support for OpenVMS Version 1.0 only.

Revision/Update Information:	This is a new manual.
Operating System & Version:	OpenVMS/Hanzi VAX V5.5 or higher
	OpenVMS/Hanyu VAX V5.5 or higher
	OpenVMS/Hangul VAX V5.5 or higher
	OpenVMS/Hanzi AXP V1.5 or higher
	OpenVMS/Hanyu AXP V1.5 or higher
	OpenVMS/Hangul AXP V1.5 or higher
Software & Version :	Asian Printing Support for OpenVMS Version 1.0
Prerequisite Software:	DECprint Supervisor for OpenVMS Version 1.0C or higher

Digital Equipment Corporation
Asia Region

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Preface

About this Guide

This guide describes how to install Asian Printing Support for OpenVMS V1.0 on the OpenVMS/Hanzi, OpenVMS/Hanyu or OpenVMS/Hangul operating systems.

Keep this document with your distribution kit. You may need it to install maintenance updates or to reinstall Asian Printing Support for OpenVMS.

Intended Audience

This guide is intended for system managers who install the Asian Printing Support for OpenVMS software.

Document Structure

This guide is organized as follows:

- Chapter 1, which describes the operating system and hardware requirements for installing the Asian Printing Support for OpenVMS software and the related procedures before installing the software.
- Chapter 2, which provides step-by-step instructions for the installation.
- Chapter 3, which describes post-installation actions required to set up a DEClaser 1152 printer
- Chapter 4, which describes post-installation actions required to set up a DEClaser 5100 printer
- Chapter 5, which describes post-installation actions required to set up a PrintServer 17/600
- Appendix A, which contains sample listings for the installation of the Asian Printing Support for OpenVMS software.

- Appendix B, which contains a list of files created when the Asian Printing Support for OpenVMS software is installed.

Manuals in the Asian Printing Support for OpenVMS Documentation Set

In addition to this guide, the Asian Printing Support for OpenVMS documentation set includes the following document:

- *Asian Printing Support for OpenVMS Version 1.0 Release Notes*

Associated Documents

- *DECprint Supervisor for OpenVMS System Manager's Guide*
- *DECprint Supervisor for OpenVMS User's Guide*
- *DECprint Supervisor for OpenVMS Version 1.0C Release Notes*
- *DECprint Supervisor Software Installation Guide*
- *OpenVMS DCL Dictionary*
- *Introduction to OpenVMS System Management*
- *VMS LAT Control Program (LATCP) Manual*
- *DEClaser 1152 Printer Operator's Guide*
- *PrintServer Software for OpenVMS Installation Guide*
- *PrintServer Software for OpenVMS Management Guide*
- *Character Manager (CMGR) User Guide*

Conventions

The following conventions are used in this guide:

UPPERCASE	Uppercase characters indicate DCL commands, qualifiers and parameters.
italics	Italic characters are used in command examples to indicate that you are to substitute a word or value of your choice.

$	The dollar sign is used to indicate the DCL prompt. This prompt may be different on your system.
Ctrl/x	In procedures, a sequence such as Ctrl/X indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
Return	In procedures, a key name is shown enclosed to indicate that you press a key on the keyboard.
. . .	Vertical ellipsis in an example means that information not directly related to the example has been omitted.
file-spec, . . .	Horizontal ellipsis indicates that additional parameters, values, or information can be entered.
OpenVMS	This name is used to refer to the VMS and OpenVMS operating systems.

1

Preparing for Installing Asian Printing Support for OpenVMS

This chapter discusses the preparations and requirements necessary for installing Asian Printing Support for OpenVMS, ASPS in short.

ASPS provides on-line release notes. Digital strongly recommends that you read the release notes before proceeding with the installation. For information on accessing the on-line release notes, see Section 2.1.

1.1 Prerequisite Hardware

To install ASPS, you need the following items:

- The appropriate input device to hold the distribution media

  ASPS is distributed with the Asian OpenVMS distribution media.

- Appropriate communications hardware for printer configuration
- Adequate disk space for the installation and operation of ASPS, as listed in Table 1–1

In addition, each type of printing device supported by ASPS requires special hardware, as described in the following sections.

1.1.1 Serial Printer Hardware Requirements

ASPS supports the following serial printers.

- **DEClaser 5100**

  ASPS supports DEClaser 5100 printer with the hard disk option installed. The hard disk is used for the storage of high-quality PostScript scalable fonts.

- **DEClaser 1152**

ASPS supports DEClaser 1152 printer with the following hardware options :

1. 2MB memory upgrade to give a total of 4MB of memory
2. LocalTalk(DIN8) to MMJ converter (P/N -H8584-AB) with BC16E cable

Serial printers, such as DEClaser printers, are connected to the host system either by a DECserver port, or by a direct serial line interface. The DECserver devices that can be used with Asian Printing Support for OpenVMS are listed in the Software Product Description of DECprint Supervisor V1.0C for OpenVMS. To set up DECserver connections for serial printers, refer to the reference manual of the printer or Section 6.1 of *DECprint Supervisor for OpenVMS Software Installation Guide* for more details.

Note

DEClaser 5100 printer requires an H8571-E adapter. Refer to your printer installation guide for more information.

1.1.2 PrintServer Hardware Requirements

ASPS supports the following PrintServer printer :

- **PrintServer 17/600**

The PrintServer 17/600 printer must have at least 16MB of memory for simplex (one-side) printing and 20MB of memory for duplex (two-side) printing. A PrintServer client system is an OpenVMS system where print queues to the PrintServer printer are created. Before you can run the DECprint Supervisor software on the client system to print files on a PrintServer printer, the PrintServer printer and its associated software must be installed on the network. Refer to the printer installation guide for more information.

1.2 Prerequisite Software

1.2.1 General Software Requirements

To install ASPS , the host system must be running one of the following operating systems:

- OpenVMS/Hanzi VAX Version 5.5 or higher
- OpenVMS/Hanzi AXP Version 1.5 or higher
- OpenVMS/Hanyu VAX Version 5.5 or higher
- OpenVMS/Hanyu AXP Version 1.5 or higher
- OpenVMS/Hangul VAX Version 5.5 or higher
- OpenVMS/Hangul AXP Version 1.5 or higher

In addition, ASPS requires one of the following software to operate.

- DECprint Supervisor for OpenVMS AXP Version 1.0C or higher
- DECprint Supervisor for OpenVMS VAX Version 1.0C or higher

You can install the above DECprint Supervisor software (DCPS in short) before or after the installation of ASPS .

1.2.2 Software Required for Networked Serial Printers

For serial printers on DECserver devices, ensure that the LAT software is started before you start the print queues. Either LAT or LAT/Master software can be used. Refer to *VMS LAT Control Program (LATCP) Manual* for more information.

1.2.3 Software Required for PrintServer Printers

For PrintServer printers, ensure that the PrintServer printer is installed and booted with its software before you start the print queue. DECnet–VAX software must be running on the client system. PrintServer Software must be running on the PrintServer host system. Refer to the *PrintServer Software for OpenVMS Installation Guide* for details.

1.3 License Registration

You do not need a PAK to install and use ASPS. However, if your printing system requires advanced features, like automatic data type detection, you will need the DCPS Product Authorization Key (PAK in short) for the DECprint Supervisor-Plus license. The PAK name for this license is DCPS-PLUS.

1.4 Installation Procedure Requirements

The following sections discuss various requirements for installing ASPS.

The installation takes approximately 5 to 20 minutes, depending on your type of media and your system configuration.

1.4.1 Privileges and Disk Space

To install Asian Printing Support for OpenVMS, you must log in to an account that has SETPRV or at least the following privileges:

- CMKRNL
- WORLD
- SYSPRV

On most systems, the SYSTEM account has SETPRV and is used to install software. To check the default privileges of the SYSTEM account, log in as SYSTEM, and enter this DCL command:

```
$ SHOW PROCESS/PRIVILEGES
```

1.4.2 Disk Space

ASPS requires different free disk storage space for the installation of Hanzi,Hanyu and Hangul options. Table 1–1 summarizes the storage requirements.

Table 1–1 Disk Space Requirements

Disk Space Required for installing Hanzi option	22000
Disk Space Required for installing Hanyu option	36000
Disk Space Required for installing Hangul option	11000

To determine the number of free disk blocks on the current system disk, enter the following command at the DCL prompt:

```
$ SHOW DEVICE SYS$SYSDEVICE
```

1.4.3 Process Account Quotas

The account you use to install Asian Printing Support for OpenVMS must have sufficient quotas to enable you to perform the installation. Table 1–2 summarizes the process quotas required for the installation account.

Table 1–2 Process Account Quotas for the Installing Account

Account Quota	Value
ASTLM	24
BIOLM	18
BYTLM	18,000
DIOLM	18
ENQLM	30
FILLM	20

User account quotas are stored in the file SYSUAF.DAT. Use the OpenVMS Authorize Utility (AUTHORIZE) to verify and change user account quotas. First set your directory to SYS$SYSTEM and then run AUTHORIZE:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN AUTHORIZE
UAF>
```

At the UAF> prompt, enter the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SMITH
```

To change a quota, enter the MODIFY command. The following example changes the FILLM quota for the SMITH account and then exits from the utility:

```
UAF> MODIFY SMITH /FILLM=50
UAF> EXIT
```

After you exit from the utility, the system displays messages indicating whether or not changes were made. Once the changes have been made, you must log out and log in again for the new quotas to take effect.

For more information on modifying account quotas, see the description of the Authorize Utility in the OpenVMS System Management Subkit.

1.4.4 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks the following:

- Whether you have set your default device and directory to SYS$UPDATE
- Whether you are logged in to a privileged account
- Whether you have adequate quotas for installation
- Whether DECnet is running
- Whether any users are logged in to the system

Note that the VMSINSTAL requires that the installation account has a minimum of the following quotas:

ASTLM = 24
BIOLM = 18
BYTLM = 18,000
DIOLM = 18
ENQLM = 30
FILLM = 20

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process and correct the situation, enter NO or press Return. Then correct the problem and restart the installation.

1.4.5 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you do a system disk backup before installing any software.

Use the backup procedures that are established at your site. For details on performing a system disk backup, see the section on the Backup Utility in the OpenVMS System Management Subkit.

2

Installing Asian Printing Support for OpenVMS

This chapter explains how to install Asian Printing Support for OpenVMS. Section 2.1 contains a step-by-step description of the installation procedure.

2.1 The Installation Procedure

The Asian Printing Support for OpenVMS installation procedure consists of a series of questions and informational messages. See Appendix A for a sample installation.

To abort the installation procedure at any time, press Ctrl/Y. When you press Ctrl/Y, the installation procedure deletes all files it has created up to that point and exits. You can then start the installation again.

1. **Invoke VMSINSTAL.**

   ```
   @SYS$UPDATE:VMSINSTAL saveset-name device-name OPTIONS N
   ```

   To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. VMSINSTAL is in the SYS$UPDATE directory. The following list defines the elements of the VMSINSTAL command procedure:

   saveset-name
   The installation name for the component. For ASPS, use the following installation name:

   ```
   ASPS010
   ```

   device-name
   The name of the device on which you plan to mount the media. For example, MTA0: is the device name for a tape drive. It is not necessary to use the console drive for this installation. However, if you do use the console drive, you should replace any media you removed once the installation is complete.

OPTIONS N
An optional parameter that indicates you want to see the question on release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You should review the release notes before proceeding with the installation in case they contain additional information about the installation. If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.

Note that there are several other options you can select when you invoke VMSINSTAL.

- Auto_answer option (A): Initially creates a file that contains your answers to VMSINSTAL questions and prompts. You can then use the option (and the answer file) to save time during a reinstallation (typically after upgrading your system).
- Get save set option (G): Lets you store product save sets temporarily on a magnetic tape or in a disk directory.
- File log option (L): Logs all activity to the terminal during installation.
- Alternate root option (R): Lets you install the product to a system root other than that of the running system.

See the OpenVMS documentation on software installation in the OpenVMS System Management Subkit for detailed information on these options. If you specify more than one option, separate the options with commas (OPTIONS A,N).

The following example invokes VMSINSTAL to install ASPS from tape drive MTA0: and shows the system response. This example uses the OPTIONS N release note parameter.

```
$ @SYS$UPDATE:VMSINSTAL ASPS010 MTA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.5


It is 05-FEB-1994 at 10:10.
Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later in the installation procedure. VMSINSTAL does not prompt you for any options, so be sure to include OPTIONS N on the VMSINSTAL command line to access the release notes during the installation.

2. **Confirm DECnet status.**

```
    .
    .
    .
* Do you want to continue anyway [NO]?
```

VMSINSTAL notifies you if DECnet is running and displays a list of all active processes. It then asks if you want to continue the installation. You should install ASPS on a standalone system or cluster with DECnet shut down. NO is the default response to the question.

3. **Confirm system backup.**

```
* Are you satisfied with the backup of your system disk [YES]?
```

VMSINSTAL asks if you are satisfied with your system backup. You should always back up your system disk before performing an installation. If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

4. **Mount the media.**

```
Please mount the first volume of the set on MTA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED, Asian Printing Support for OpenVMS MOUNTED ON _$$MTA0:  (NODE 1)
The following products will be processed:

  ASPS V1.0

        Beginning installation of ASPS V1.0  at 10:12

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

You should now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. The device name appears in the line preceding the question. VMSINSTAL then asks you if you are ready to continue with the installation.

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing ASPS has been mounted on the specified device and that the installation has begun.

If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, enter NO in response to the ''Are you ready?'' question. To abort the installation for other reasons, press Ctrl/Y.

5. **Select a release notes option.**

ASPS release notes, ASPS010.RELEASE_NOTES, is provided along with the kit. If you specified OPTIONS N when you invoked VMSINSTAL, you are now asked to choose one of the following four options for reviewing the release notes.

```
Release notes included with this kit are always copied to SYS$HELP.

Additional Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  None of the above

* Select option [2]:
```

If you select option 1, VMSINSTAL displays the release notes immediately on the console terminal. You can terminate the display at any time by pressing Ctrl/C.

If you select option 2, VMSINSTAL prompts you for the name of the print queue that you want to use:

```
* Queue name [SYS$PRINT]:
```

You can press Return to send the files to the default output print device or you can enter another queue name.

If you select option 3, VMSINSTAL displays the release notes immediately on the console terminal and then prompts you for a queue name for the printed versions.

Select option 4 if you have already reviewed the release notes and are restarting the installation.

Next, VMSINSTAL displays the following question:

```
* Do you want to continue the installation [N]?: YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been
                                 successfully moved to SYS$HELP.
```

To continue the installation, enter YES. Otherwise, press Return. In either case, the release notes are copied to files in the SYS$HELP directory:

```
SYS$HELP:ASPS010.RELEASE_NOTES
```

6. **Purge files.**

```
* Do you want to purge files replaced by this installation [YES]?
```

You have the option to purge files from previous versions of Asian Printing Support for OpenVMS that are superseded by this installation. Purging is

recommended; however, if you need to keep files from the previous version, enter NO in response to the question.

7. **Choose language options.**

```
* Do you want to purge files replaced by this installation [YES]?

        Option  Description
        ------  -----------
        A       Enable Simplified Chinese (Hanzi) printing capability.
        B       Enable Traditional Chinese (Hanyu) printing capability.
        C       Enable Korean printing (Hangul) capability.

        For example, enter "CB" to enable Korean and Traditional Chinese
        printing at the same time.


* Enter options to enable Asian language printing capabilities [B]:
```

You have the option to choose which language options you want to install on your system. You can specify a single language option by typing in a single letter, or specify more than one language options by typing in any combination of the letters A,B and C. The default answer will be set according to the language variant of OpenVMS already installed on your system.

VMSINSTAL checks to see if the amount of disk space required for the installation is available. If the space is not available, a message indicates the amount of disk space that is required, and the installation is aborted. Otherwise, the installation procedure continues.

8. **Read informational messages.**

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation. There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. If you chose to have files purged, that work is done now. The following messages are displayed:

```
%VMSINSTAL-I-MOVEFILES, files will now be moved to their target
                                directories...
```

9. **End the installation procedure.**

```
   Installation of ASPS V1.0 completed at 10:15

   VMSINSTAL procedure done at 10:15
```

This message indicates that the entire installation procedure is complete.

You can now log out of the privileged account:

```
$ LOGOUT
SYSTEM     logged out at 04-FEB-1994 10:15:10.23
```

Note that VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you are going to continue using the system manager's account and you want to restore these symbols, you should log out and log in again.

2.2 Error Recovery

If errors occur during the installation, VMSINSTAL displays failure messages.

For descriptions of the error messages generated by those conditions, see the OpenVMS documentation on system messages, recovery procedures, and OpenVMS software installation. If you are notified that any of those conditions exists, you should take the appropriate action as described in the message. For information on the installation requirements, see Chapter 1.

3

Setting up a DEClaser 1152 Printer

The following sections describe the steps to be performed for setting up a DEClaser 1152 printer to print Chinese and Korean characters. To print Asian documents, your DEClaser 1152 printer must have the 2MB memory upgrade board installed to give a total of 4MB of memory. For each DEClaser 1152 printer, you need two serial channels to connect to the host computer. One channel is used for normal DCPS print queue and the other is used for getting Asian PostScript fonts.

On the printer side, you should use the main serial channel (Serial) for connection to DCPS print symbiont. The printer provides a second serial channel (SerialB) through the LocalTalk port. You need a DIN-8 to MMJ converter (P/N -H8584-AB) for connection to host.

On the host side, you have to designate two serial ports to be used for DCPS print symbiont and ASPS font daemon. The ports can either be TT port or LAT port.

You must perform the following tasks for ASPS to work with the DEClaser 1152 printer. All tasks should be performed by system managers under the SYSTEM account as follows:

1. Install the DECprint Supervisor for OpenVMS Software
2. Edit the system startup command file
3. Edit the printer startup file SYS$STARTUP:DCPS$STARTUP.COM
4. Create and edit the Asian font daemon startup file ASPS$STARTUP_FONTS_DAEMON.COM
5. Invoke SYS$STARTUP:DCPS$STARTUP.COM
6. Invoke SYS$STARTUP:ASPS$STARTUP_FONT_DAEMON.COM

3.1 Installing the DECprint Supervisor Software

Install DECprint Supervisor for OpenVMS (DCPS) by VMSINSTAL if it is not already installed. Please follow the installation procedure documented in *DECprint Supervisor Software Installation Guide* to install the above software. After the installation of the DECprint Supervisor software, you need to enable ASPS to work with the DEClaser 1152 printer by the following command.

```
$ @SYS$MANAGER:ASPS$DL1152_SETUP
```

The procedure will append a PostScript prologue to the system page module, LPS$$SYSTEMPAGES. The PostScript prologue enables the printer to talk to the font daemon on host to fetch font information when needed.

The original system page module will be saved under a new module called LPS$$SYSTEMPAGES_ASPS_SAV in the device control library.

When the DEClaser 1152 printer is no longer used for printing Asian documents, you can recover the original system page module by issuing the following commands :

```
$ LIBR/EXTRACT=LPS$$SYSTEMPAGES_ASPS_SAV/OUT=LPS$$SYSTEMPAGES.PS -
_$ SYS$LIBRARY:DCPS$DEVCTL.TLB
$ LIBR/REPLACE SYS$LIBRARY:DCPS$DEVCTL.TLB LPS$$SYSTEMPAGES.PS
$ DELETE LPS$$SYSTEMPAGES.PS;*
```

3.2 Editing the System Startup Command File

Edit the system startup file, SYS$STARTUP:SYSTARTUP_VMS.COM[1] and make sure both of the following procedures are included in the system startup file :

```
$ @SYS$STARTUP:DCPS$STARTUP
$ @SYS$STARTUP:ASPS$STARTUP_FONT_DAEMON
```

This will ensure that the DEClaser 1152 printer will be set up properly for Asian characters printing after the system is rebooted.

If either the print queue port or the font daemon port is a Local Area Transport (LAT) port, you should make the necessary changes to the command procedure in SYS$STARTUP:LAT$STARTUP.COM to start the LAT protocol, and to configure application devices for printer before you execute DCPS$STARTUP.COM. DCPS$STARTUP.COM and

[1] Prior to Asian OpenVMS VAX Version 6.0, the name of the system startup file is SYS$STARTUP:SYSTARTUP_V5.COM

ASPS$STARTUP_FONT_DAEMON.COM also allow users to set up LAT devices inside the command procedures.

To update the system startup file, edit SYS$STARTUP:SYSTARTUP_VMS.COM, and add the following command procedure in the file:

```
$ @SYS$STARTUP:LAT$STARTUP
```

Make sure that the command lines to start DCPS$STARTUP.COM and ASPS$STARTUP_FONT_DAEMON.COM come after the command to start LAT$STARTUP.COM. If the system startup file does not include the above command line, the Local Area Transport (LAT) protocol will not be started automatically when the system starts up.

3.3 Defining a DCPS Queue for the Printer

Before you can print, you must create the startup file DCPS$STARTUP.COM for the DECprint Supervisor software. These operations are required for sites that are installing the DECprint Supervisor software for the first time.

3.3.1 Copying the Printer Startup Command File

DECprint Supervisor software provides you with a template printer startup file, DCPS$STARTUP.TEMPLATE. You must copy the template file and edit the file to reflect your own queue structure. You may also add a command to execute this file in the system startup file.

Copy the template printer startup file using the copy command as follows:

```
$ SET DEFAULT SYS$STARTUP
$ COPY DCPS$STARTUP.TEMPLATE DCPS$STARTUP.COM
```

3.3.2 Editing the Printer Startup File

Edit DCPS$STARTUP.COM to reflect your own queue structure, to include :

1. **The Definition of Execution Queues**

   You may create an execution queue for each DEClaser 1152 printer. To create an execution queue for your printer, add the following to your DCPS$STARTUP.COM:

```
$ @SYS$STARTUP:DCPS$EXECUTION_QUEUE -
      DL1152 -                          ! P1 - Execution queue name
      lta1: -                           ! P2 - Serial Device Name or Printer
      -                                 !      Server node name
      DCPS_LIB -                        ! P3 - Logical name for library(ies)
      "" -                              ! P4 - Default queue parameters
      "" -                              ! P5 - Default queue qualifiers
      "" -                              ! P6 - Communication speed (serial
         -                              !      devices only)
      "" -                              ! P7 - Device characteristics
      ""                                ! P8 - Verify on/off
```

For details about creating your own execution queue structure, please refer to *DECprint Supervisor Software System Manager's Guide*.

2. **The Definition of Generic Queues**

   You can set up a generic queue for each print job. For example, a generic queue to print simplified Chinese can be defined as follows:

```
$ @SYS$STARTUP:DCPS$GENERIC_QUEUE -
        HANZI_TEXT -                    ! P1 - Generic queue name
        DL1152 -                        ! P2 - Execution queue name
        "DATA=LA_DECHANZI" -            ! P3 - Default parameter
        "" -                            ! P4 - Default queue qualifiers
        ""                              ! P5 - Verify on/off
```

   For details, please refer to *DECprint Supervisor Software System Manager's Guide*.

3.4 Defining an Asian Font Daemon for the Printer

An Asian font daemon should be defined for every DEClaser 1152 printer you want to be enabled for Asian characters printing. The Asian font daemon runs on the host system and serves fonts to the printer when needed. It uses the second serial communication channel to talk to the printer.

ASPS provides you with a template font daemon startup file, ASPS$STARTUP_FONT_DAEMON.TEMPLATE. You must copy the template file and edit the file to define the Asian font daemons on your system. You may also add a command to execute this file in the system startup file.

3.4.1 Copying the Asian Font Daemon Startup Command File

Copy the template font daemon startup file using the copy command as follows:

```
$ SET DEFAULT SYS$STARTUP
$ COPY ASPS$STARTUP_FONT_DAEMON.TEMPLATE ASPS$STARTUP_FONT_DAEMON.COM
```

3.4.2 Editing the Asian Font Daemon Startup File

Edit ASPS$STARTUP_FONT_DAEMON.COM to start one or more font daemons on your system. The font daemons are started at the end of the file, the following example shows two font daemons are started, one serving a printer with SerialB channel connected to TTA1:, and the other with SerialB channel connected to LTA9:.

```
$!------------------------------------------------------------------------
$!  Add a line below for each port you want to enable for font loading
$!  p1 is the port name in the form of TTAn , LTAn, OPAn etc
$!  P2 is the speed of the TT port, not relevant for LAT port
$!
$ call font_daemon tta1 19200
$ call font_dameon lta9
```

For LAT ports, the speed is specified in the DECserver and thus specifying the speed here will not make any difference. For TT ports, the speed specified here will be used for setting the speed of the port. In either case, the speed of the port has to match with the speed set for the SerialB channel of the printer. To keep everything in one place, you can include the LAT port definition in this procedure. The following example shows the definition of a LAT port :

```
$ run sys$system:latcp
create port lta9: /application /nolog
set port lta9: /node=LAT_08002B2F3897 /port=PORT_8 / application /queue
```

3.5 Executing DCPS$STARTUP to Create/Start the Queues

Invoke DCPS$STARTUP by issuing the following DCL command in the command line:

```
$ @SYS$STARTUP:DCPS$STARTUP
```

3.6 Executing ASPS$STARTUP_FONT_DAEMON to Create Font Daemons

Invoke ASPS$STARTUP_FONT_DAEMON by issuing the following DCL command in the command line:

```
$ @SYS$STARTUP:ASPS$STARTUP_FONT_DAEMON
```

3.7 Limitations

Due to the limitation on the capacity of the serial communication channels, the following line speeds are recommended for setting up the DEClaser 1152 printer :

- 9600 bps for main channel (Serial)
- 19200 bps for font channel (SerialB)

3.8 Determining and Reporting Problems

If you encounter a problem while using Asian Printing Support for OpenVMS, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).

Review the Software Product Description (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as indicated above or follow alternative instructions provided by Digital for reporting SPD nonconformance problems.

4

Setting up a DEClaser 5100 Printer

The following sections describe the steps to be performed for setting up a DEClaser 5100 printer to print Asian characters. The DEClaser 5100 printer must have the hard disk option installed to store the Asian fonts. ASPS provides a font loading procedure to download the Asian PostScript fonts to the hard disk of the printer.

You must perform the following tasks for ASPS to work with the DEClaser 5100 printer. All tasks should be performed by system manager under the SYSTEM account as follows:

1. Download Asian PostScript fonts to the hard disk of the printer
2. Install the DECprint Supervisor for OpenVMS Software
3. Edit the system startup command File
4. Edit the printer startup file DCPS$STARTUP.COM
5. Invoke SYS$STARTUP:DCPS$STARTUP.COM

4.1 Downloading PostScript Fonts to the Hard Disk of the Printer

DEClaser 5100 is a high-performance 8 pages-per-minute PostScript printer. ASPS supports printing of Chinese and Korean characters to this printer with the hard disk option installed. You have to execute the following procedure to download the Asian PostScript fonts to the hard disk of the printer:

```
@SYS$STARTUP:ASPS$DL5100_LOAD_FONTS.COM
```

The procedure will ask you to specify a TT or LAT port your DEClaser 5100 printer is connected to. Make sure the speed of the port matches with the speed setting of the main serial channel of the printer. If there is currently a print queue running on that port, stop the queue by issuing the following command :

Setting up a DEClaser 5100 Printer
4.1 Downloading PostScript Fonts to the Hard Disk of the Printer

```
$ stop/que/reset your_print_queue
```

For example, if you connect the DEClaser 5100 printer to the LTA1 port :

```
$ @SYS$MANAGER:ASPS$DL5100_LOAD_FONT.COM

This procedure downloads Asian PostScript fonts to the hard disk of the
DEClaser 5100 printer. Please specify the name of TT or LAT port which
connects to the printer.
If there is a print queue running on that port, please stop it by typing :

    $ stop/que/reset your_print_queue

The port DEClaser 5100 is connected to : LTA1:
```

Then the procedure will list all Asian PostScript fonts available on your system and ask you to specify which fonts you want to be downloaded to the hard disk of the printer.

```
Please select which fonts you want to be downloaded to the hard disk of the
printer :

HEI-LIGHT-CNS11643.       SUNG-LIGHT-CNS11643.     SUNG-LIGHT-DTSCS.

You can specify a list of files using comma (,) and wildcard
characters (%)(*), E.g. Font*,MyFont

Enter fonts you want to be downloaded : *
```

Normally you would download all PostScript fonts to the hard disk, so you can just answer * to the prompt. If you wish to download only some of the fonts on your system, you can specify a list of files separated by comma(s). You can also specify the fonts by using wild card characters * and %.

The following table shows the fonts available for Simplified Chinese, Traditional Chinese and Korean languages :

Table 4–1 Asian PostScript Font Names

Language	Font Names
Simplified Chinese (Hanzi)	XiSong-GB2312-80
	Hei-GB2312-80
Traditional Chinese (Hanyu)	Sung-Light-CNS11643
	Hei-Light-CNS11643
	Sung-Light-DTSCS
Korean (Hangul)	Munjo

Note

Sung-Light-DTSCS is a dummy font file which does not contain any characters. The Hanyu text-to-PostScript translator needs this font file for proper operations.

After you have confirmed the list of fonts are correct, the procedure will start sending fonts to the printer. There will be some informational messages telling you about the status of the job. Depending on the speed of the serial line and the amount of data to be sent, it takes about 1 to 3 hours to complete. When all fonts have been downloaded to the hard disk of the printer, you should power off the printer and turn it on again.

4.2 Installing the DECprint Supervisor Software

Install DECprint Supervisor for OpenVMS V1.0C (DCPS V1.0C) by VMSINSTAL if it is not already installed. Please follow the installation procedure documented in *DECprint Supervisor Software Installation Guide* to install the above software.

4.3 Editing the System Startup Command File

Edit the system startup file, SYS$STARTUP:SYSTARTUP_VMS.COM[1] and make sure the following procedure is included in the system startup file :

```
$ @SYS$STARTUP:DCPS$STARTUP
```

This will ensure that the print queue for the DEClaser 5100 printer will be automatically started at system startup time.

If the port for the print queue is a Local Area Transport (LAT) port, you should make the necessary changes to the command procedure in SYS$STARTUP:LAT$STARTUP.COM to start the LAT protocol, and to configure application devices for printer before you execute DCPS$STARTUP.COM. DCPS$STARTUP.COM also allows users to set up LAT devices inside the command procedure.

To update the system startup file, edit SYS$STARTUP:SYSTARTUP_VMS.COM, and add the following command procedure in the file:

```
$ @SYS$STARTUP:LAT$STARTUP
```

[1] Prior to Asian OpenVMS VAX Version 6.0, the name of the system startup file is SYS$STARTUP:SYSTARTUP_V5.COM

Make sure that the command line to start DCPS$STARTUP.COM comes after the command to start LAT$STARTUP.COM. If the system startup file does not include the above command line, the Local Area Transport (LAT) protocol will not be started automatically when the system starts up.

4.4 Defining a DCPS Queue for the Printer

Before you can print, you must create the startup file DCPS$STARTUP.COM for the DECprint Supervisor software. These operations are required for sites that are installing the DECprint Supervisor software for the first time.

4.4.1 Copying the Printer Startup Command File

DECprint Supervisor software provides you with a template printer startup file, DCPS$STARTUP.TEMPLATE. You must copy the template file and edit the file to reflect your own queue structure. You may also add a command to execute this file in the system startup file.

Copy the template printer startup file using the copy command as follows:

```
$ SET DEFAULT SYS$STARTUP
$ COPY DCPS$STARTUP.TEMPLATE DCPS$STARTUP.COM
```

4.4.2 Editing the Printer Startup File

Edit DCPS$STARTUP.COM to reflect your own queue structure, to include :

1. **The Definition of Execution Queues**

   You must create an execution queue for each DEClaser 5100 printer. To create an execution queue for your printer, add the following to your DCPS$STARTUP.COM:

```
$ @SYS$STARTUP:DCPS$EXECUTION_QUEUE -
      DL5100 -                          ! P1 - Execution queue name
      LTA1: -                           ! P2 - Serial Device Name or Printer
      -                                 !      Server node name
      DCPS_LIB -                        ! P3 - Logical name for library(ies)
      "" -                              ! P4 - Default queue parameters
      "" -                              ! P5 - Default queue qualifiers
      "" -                              ! P6 - Communication speed (serial
         -                              !      devices only)
      "" -                              ! P7 - Device characteristics
      ""                                ! P8 - Verify on/off
```

For details about creating your own execution queue structure, please refer to *DECprint Supervisor Software System Manager's Guide*.

2. **The Definition of Generic Queues**

   You can set up a generic queue for each print job. For example, a generic queue to print traditional Chinese can be defined as follows:

```
$ @SYS$STARTUP:DCPS$GENERIC_QUEUE -
        HANYU_TEXT -                    ! P1 - Generic queue name
        DL5100 -                        ! P2 - Execution queue name
        "DATA=LA_DECHANYU" -            ! P3 - Default parameter
        "" -                            ! P4 - Default queue qualifiers
        ""                              ! P5 - Verify on/off
```

   For details, please refer to *DECprint Supervisor Software System Manager's Guide*.

4.5 Executing DCPS$STARTUP to Create/Start the Queues

Invoke DCPS$STARTUP by issuing the following DCL command in the command line:

```
$ @SYS$STARTUP:DCPS$STARTUP
```

4.6 Determining and Reporting Problems

If you encounter a problem while using Asian Printing Support for OpenVMS, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).

Review the Software Product Description (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as indicated above or follow alternative instructions provided by Digital for reporting SPD nonconformance problems.

5

Setting up a PrintServer 17/600 Printer

The following sections describe the steps to be performed for setting up a PrintServer 17/600 printer to print Chinese and Korean language documents. To print Asian documents, the PrintServer 17/600 printer must have at least 16MB of memory for simplex printing and 20MB of memory for duplex printing. The supporting host which provides boot service and images to the printer must be running PrintServer Software for OpenVMS Version 5.0 or higher.

You must perform the following tasks for ASPS to work with the PrintServer 17/600. All tasks should be performed by system manager under the SYSTEM account as follows:

1. Install the PrintServer Software for OpenVMS
2. Install the DECprint Supervisor for OpenVMS Software
3. Invoke SYS$MANAGER:ASPS$LPS17_SETUP.COM to enable the PrintServer Software to support Asian fonts
4. Edit the system startup command File
5. Edit the printer startup file DCPS$STARTUP.COM
6. Invoke SYS$STARTUP:DCPS$STARTUP.COM

5.1 Installing the PrintServer Software

Install PrintServer Software for OpenVMS V5.0 (LPS V5.0) by VMSINSTAL if it is not already installed. Please follow the installation procedure documented in the *PrintServer Software for OpenVMS Installation Guide* to install the above software. You should follow the procedure to set up the printer for English printing first before performing the following steps.

5.2 Editing the System Startup Command File

Edit the system startup file, SYS$STARTUP:SYSTARTUP_VMS.COM[1] and make sure both of the following procedures are included in the system startup file :

```
$ @SYS$STARTUP:DCPS$STARTUP
$ @SYS$STARTUP:LPS$STARTUP_SERVICES
```

This will ensure that the print queue and supporting host software for the PrintServer 17/600 will be automatically started at system startup time.

Make sure that the command line to start DCPS$STARTUP.COM comes after the command STARTNET.COM.

5.3 Defining a DCPS Queue for the Printer

Before you can print, you must create the startup file DCPS$STARTUP.COM for the DECprint Supervisor software. These operations are required for sites that are installing the DECprint Supervisor software for the first time.

5.3.1 Copying the Printer Startup Command File

DECprint Supervisor software provides you with a template printer startup file, DCPS$STARTUP.TEMPLATE. You must copy the template file and edit the file to reflect your own queue structure. You may also add a command to execute this file in the system startup file.

Copy the template printer startup file using the copy command as follows:

```
$ SET DEFAULT SYS$STARTUP
$ COPY DCPS$STARTUP.TEMPLATE DCPS$STARTUP.COM
```

5.3.2 Editing the Printer Startup File

Edit DCPS$STARTUP.COM to reflect your own queue structure, to include

1. **The Definition of Execution Queues**

[1] Prior to Asian OpenVMS VAX Version 6.0, the name of the system startup file is SYS$STARTUP:SYSTARTUP_V5.COM

You must create an execution queue for each PrintServer 17/600 printer. To create an execution queue for your printer, add the following to your DCPS$STARTUP.COM:

```
$ @SYS$STARTUP:DCPS$EXECUTION_QUEUE -
      LPS17 -                          ! P1 - Execution queue name
      LPSNOD:: -                       ! P2 - Serial Device Name or Printer
         -                             !      Server node name
      DCPS_LIB -                       ! P3 - Logical name for library(ies)
      "" -                             ! P4 - Default queue parameters
      "" -                             ! P5 - Default queue qualifiers
      "" -                             ! P6 - Communication speed (serial
         -                             !      devices only)
      "" -                             ! P7 - Device characteristics
      ""                               ! P8 - Verify on/off
```

For details about creating your own execution queue structure, please refer to *DECprint Supervisor Software System Manager's Guide*.

2. **The Definition of Generic Queues**

   You can set up a generic queue for each print job. For example, a generic queue to print Hangul can be defined as follows:

```
$ @SYS$STARTUP:DCPS$GENERIC_QUEUE -
        HANGUL_TEXT -                  ! P1 - Generic queue name
        LPS17 -                        ! P2 - Execution queue name
        "DATA=LA_DECKOREAN" -          ! P3 - Default parameter
        "" -                           ! P4 - Default queue qualifiers
        ""                             ! P5 - Verify on/off
```

   For details, please refer to *DECprint Supervisor Software System Manager's Guide*.

5.4 Enabling PrintServer Software to access Asian Fonts

PrintServer 17/600 is a high performance, 17 pages-per-minute PostScript printer. ASPS supports printing of Asian language documents to this printer running PrintServer Software V5.0 or later. You have to execute the following procedure on the supporting host to enable the PrintServer software to use Asian PostScript fonts. Make sure the PrintServer startup procedure SYS$STARTUP:LPS$STARTUP_SERVICES.COM has already been executed. Otherwise this procedure will fail in looking for the LPS$ROOT directories.

```
@SYS$STARTUP:ASPS$LPS17_SETUP.COM
```

Setting up a PrintServer 17/600 Printer
5.4 Enabling PrintServer Software to access Asian Fonts

The procedure will create two directories under LPS$ROOT:, LPS$ROOT:[FONTS] and LPS$ROOT:[FONTDATA]. If the PrintServer Software was installed on the system disk, it will use DCL command SET FILE/ENTER to link all files under SYS$COMMON:[SYSFONT.PSFONT.FONTS] and SYS$COMMON:[SYSFONT.PSFONT.FONTDATA] to these two directories. Otherwise, the procedure will just copy files from ASPS directories to LPS directories. The procedure will then ask you to specify the name of the PrintServer. The name is used to locate and update the setup and resource files of the printer. It will prompt you to specify the fonts you want to be loaded to the memory of the printer as resources. Loading fonts to printer at startup time will greatly improve performance but will consume memory of the printer.

```
Loading fonts into PrintServer's memory at startup time will improve
printing performance. Please select which fonts of below you want to
be persistently loaded into printer's memory :

Munjo.

You can specify a list of files using comma (,) and
wildcard characters (%)(*),  e.g. Font*,MyFont

Enter fonts you want to be persistently loaded : *
```

Normally you would load all PostScript fonts to memory of your printer at printer startup time, so you can just answer * to the prompt. If you wish to download only some of the fonts on your system, you can specify a list of files separated by comma(s). You can also specify the files by using wild card characters * and %.

The following table shows the fonts available for Simplified Chinese, Traditional Chinese and Korean languages :

Table 5–1 Asian PostScript Font Names

Language	Font Names
Hanzi Simplified Chinese	XiSong-GB2312-80
	Hei-GB2312-80
Hanyu Traditional Chinese	Sung-Light-CNS11643
	Hei-Light-CNS11643
	Sung-Light-DTSCS

(continued on next page)

Table 5–1 (Cont.) Asian PostScript Font Names

Language	Font Names
Hangul	Munjo

Note

Sung-Light-DTSCS is a dummy font file which does not contain any characters. The Hanyu text-to-PostScript translator needs this font file for proper operations.

After you have confirmed that the list of fonts is correct, the procedure will update the LPSRESOURCES.*printer* file. Then you have to reboot the printer so that the new configuration information will be used. After the printer is rebooted, the printer will be able to use the Asian PostScript fonts directly residing on the supporting host.

5.5 Executing DCPS$STARTUP to Create/Start the Queues

Invoke DCPS$STARTUP by issuing the following DCL command in the command line:

```
$ @SYS$STARTUP:DCPS$STARTUP
```

Make sure that DECnet is running on the system before you execute DCPS$STARTUP.COM.

5.6 Determining and Reporting Problems

If you encounter a problem while using Asian Printing Support for OpenVMS, report it to Digital. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).

Review the Software Product Description (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as indicated above or follow alternative instructions provided by Digital for reporting SPD nonconformance problems.

A
Sample Installation

This appendix contains a sample installation of Asian Printing Support for OpenVMS. This sample has been run on a system that has no previous version of Asian Printing Support for OpenVMS installed.

The sample installation is done on OpenVMS/Hanyu and it assumes that DECnet has been shut down, that no users are logged on to your system.

```
$ @SYS$UPDATE:VMSINSTAL ASPS010 MUA0:

 OpenVMS VAX Software Product Installation Procedure V6.1


It is 22-MAR-1994 at 16:51.

Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]?

The following products will be processed:
  ASPS V1.0

 Beginning installation of ASPS V1.0 at 16:52

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

* Do you want to purge files replaced by this installation [YES]?

 To enable Asian language printing for your system, please choose the
 following option(s).

 Option Description
 ------ -----------
 A  Enable Simplified Chinese (Hanzi) printing capability.
 B  Enable Traditional Chinese (Hanyu) printing capability.
 C  Enable Korean printing (Hangul) capability.

 For example, enter "CB" to enable Korean and Traditional Chinese
 printing at the same time.
```

Sample Installation

```
* Enter options to enable Asian language printing capabilities [B]:
%ASPS-I-HANYU, Traditional Chinese printing capability is enabled.
%ASPS-I-ESTTIME, This installation will take between 5 and 20 minutes
%ASPS-I-NOQUES, No further questions will be asked
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%VMSINSTAL-I-RESTORE, Restoring product save set E ...
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
        VMI$ROOT:[SYSFONT.PSFONT.FONTS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
        VMI$ROOT:[SYSFONT.PSFONT.FONTDATA].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
        VMI$ROOT:[SYSFONT.PSFONT.BITMAP].

        To enable Chinese and Korean printing on DEClaser 1152,
        DEClaser 5100 and PrintServer 17/600 printers, please refer to
        Installation Guide for Asian Printing Support.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
 Installation of ASPS V1.0 completed at 16:58

 VMSINSTAL procedure done at 16:58

$
```

B

Files Installed on Your System

The ASPS installation procedure installs a number of files on your system. The following list contains the names of all files created on your system:

- Common files

```
SYS$COMMON:[SYSFONT.PSFONT]FONTS.DIR
SYS$COMMON:[SYSFONT.PSFONT]FONTDATA.DIR
SYS$COMMON:[SYSFONT.PSFONT]BITMAP.DIR
SYS$COMMON:[SYSMGR]ASPS$LPS17_SETUP.COM
SYS$COMMON:[SYSMGR]ASPS$DL1152_SETUP.COM
SYS$COMMON:[SYSMGR]ASPS$DL5100_LOAD_FONT.COM
SYS$COMMON:[SYS$STARTUP]ASPS$STARTUP_FONT_DAEMON.TEMPLATE
SYS$COMMON:[SYSEXE]ASPS$FONT_DAEMON.EXE
SYS$COMMON:[SYSEXE]ASPS$DL_FONT.EXE
SYS$COMMON:[SYSFONT.PSFONT]LPSAFONTDEF.PS
SYS$COMMON:[SYSFONT.PSFONT]1152SETUP.PS
SYS$COMMON:[SYSMGR]DCPS$TAILOR_FONTNAME.COM
```

- Files installed if Simplified Chinese (Hanzi) option had been selected

```
SYS$COMMON:[SYSFONT.PSFONT.FONTS]XISONG-GB2312-80.
SYS$COMMON:[SYSFONT.PSFONT.FONTS]HEI-GB2312-80.
SYS$COMMON:[SYSFONT.PSFONT.FONTDATA]XISONG-GB2312-80.CSDATA
SYS$COMMON:[SYSFONT.PSFONT.FONTDATA]HEI-GB2312-80.CSDATA
SYS$COMMON:[SYSLIB]TRN$DECHANZI_PS.EXE
SYS$COMMON:[SYSMGR]LPS$TAILOR_DECHANZI_FONT.TEMPLATE
SYS$COMMON:[SYSFONT.PSFONT.BITMAP]FANGSONGTI_32_32.FONT
SYS$COMMON:[SYSFONT.PSFONT.BITMAP]SONGTI_32_32.FONT
```

- Files installed if Traditional Chinese (Hanyu) option had been selected

Files Installed on Your System

```
SYS$COMMON:[SYSFONT.PSFONT.FONTS]SUNG-LIGHT-CNS11643.
SYS$COMMON:[SYSFONT.PSFONT.FONTS]SUNG-LIGHT-DTSCS.
SYS$COMMON:[SYSFONT.PSFONT.FONTS]HEI-LIGHT-CNS11643.
SYS$COMMON:[SYSFONT.PSFONT.FONTDATA]SUNG-LIGHT-CNS11643.CSDATA
SYS$COMMON:[SYSFONT.PSFONT.FONTDATA]HEI-LIGHT-CNS11643.CSDATA
SYS$COMMON:[SYSLIB]TRN$DECHANYU_PS.EXE
SYS$COMMON:[SYSMGR]LPS$TAILOR_DECHANYU_FONT.TEMPLATE
SYS$COMMON:[SYSMGR]LPS$BIG5_TO_CNS11643.TEMPLATE
SYS$COMMON:[SYSMGR]LPS$BIG5_TO_CNS11643_SETUP.PS
SYS$COMMON:[SYSMGR]DCPS$BIG5_TO_CNS11643.COM
SYS$COMMON:[SYSFONT.PSFONT.BITMAP]SUNG_32_32.FONT
```

- Files installed if Korean (Hangul) option had been selected

```
SYS$COMMON:[SYSFONT.PSFONT.FONTS]MUNJO.
SYS$COMMON:[SYSFONT.PSFONT.FONTDATA]MUNJO.CSDATA
SYS$COMMON:[SYSLIB]TRN$DECKOREAN_PS.EXE
SYS$COMMON:[SYSMGR]LPS$TAILOR_DECKOREAN_FONT.TEMPLATE
SYS$COMMON:[SYSFONT.PSFONT.BITMAP]MYUNGCHO_32_32.FONT
```