This guide describes how to install the DECprint Supervisor for OpenVMS software.

Revision/Update Information: This guide supersedes AA–PSVDE–TE.
Operating System & Versions: OpenVMS Alpha, Version 6.2, 7.2-1, or 7.3
OpenVMS VAX, Version 5.5-2, 7.2, or 7.3
Software Version: Compaq DECprint Supervisor (DCPS) for OpenVMS, Version 2.0
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Preface

Intended Audience

This manual is for system managers responsible for installing the DECprint Supervisor (DCPS) for OpenVMS printing software. To install the printing software, it is necessary to have some experience with:

- OpenVMS DCL command language and system management procedures
- Procedures and commands in the DECprint Supervisor for OpenVMS System Manager’s Guide
- VMSINSTAL utility for installing OpenVMS software

If your printing environment utilizes the network to communicate with printers, you must have some knowledge of network management tools.

The DECprint Supervisor for OpenVMS System Manager’s Guide contains information about postinstallation tasks, such as creating queues and customizing your printing environment.
Conventions

The following conventions are used throughout this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPPERCASE</td>
<td>Uppercase characters indicate DCL commands, qualifiers, and parameters.</td>
</tr>
<tr>
<td><em>italics</em></td>
<td>Italic characters are used in command examples to indicate that you are to substitute a word or value of your choice.</td>
</tr>
<tr>
<td><strong>bold</strong></td>
<td>Bold characters are used in examples to show the characters that you should enter as part of the procedure.</td>
</tr>
<tr>
<td>[]</td>
<td>Brackets indicate that the enclosed item is optional.</td>
</tr>
<tr>
<td>Ctrl/x</td>
<td>This symbol indicates a control key sequence. Press the key labeled Ctrl while you simultaneously press another key, represented by x.</td>
</tr>
<tr>
<td>Return</td>
<td>This symbol indicates that you should press the Return key.</td>
</tr>
</tbody>
</table>
DECprint Supervisor runs on OpenVMS Alpha and OpenVMS VAX systems. The files that are installed on the two systems differ. See the Release Notes for a full list of the files.

Note

Starting with DCPS V2.0, the need for DCPS-OPEN and DCPS-PLUS licenses has been eliminated. The right to use all features of DCPS is now included with the OpenVMS operating system license.

1.1 Checking the Disk Space

Depending on whether DECprint Supervisor is installed on an Alpha or VAX processor, disk space requirements may vary. Table 1–1 lists the disk space requirements.

Table 1–1 Disk Space Requirements

<table>
<thead>
<tr>
<th>Disk space required for . . .</th>
<th>Alpha system</th>
<th>VAX system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>7400 blocks</td>
<td>5900 blocks</td>
</tr>
<tr>
<td>Permanent use</td>
<td>6900 blocks</td>
<td>5500 blocks</td>
</tr>
</tbody>
</table>

These disk space requirements are approximate, and depend on your system environment, disk cluster size, configuration and software options.
1.2 Related Software

DECprint Supervisor works with other software to create a fully functional printing system. Before installing DECprint Supervisor, make sure the other application and printing software is compatible.

The following sections detail the software you need. Refer to the DECprint Supervisor for OpenVMS Software Product Description (SPD) for specific version requirements.

1.2.1 DEC C Run-Time Library

DCPS requires that the DEC C run-time library is installed on your system. This library is included with the OpenVMS operating system starting with OpenVMS V6.1, and in the DEC C/C++ Run-Time Components kit. To run on OpenVMS VAX V5.5-2 and V6.0 systems, the DEC C/C++ Run-Time Components kit must be installed before installing DCPS.

To determine if the DEC C run-time library exists on your system, check for the existence of the file SYS$STARTUP:CRT$STARTUP.COM. If this file exists, the DEC C/C++ Run-Time Components kit has already been installed. If it does not, you must install the DEC C/C++ Run-Time Components kit before installing DECprint Supervisor for OpenVMS.

The DEC C/C++ Run-Time Components kit is included on the DCPS CD-ROM starting with V1.6, and is also available on the OpenVMS VAX Software Product Library CD-ROM distributed by Compaq. Please refer to the DEC C/C++ Run-Time Components documentation for information about installing the kit, starting with Read Before Installing or Using DEC C/C++ Run-Time Components Version 6.0 for OpenVMS VAX Systems.

1.2.2 PrintServer Software

To print to a DIGITAL PrintServer printer, the printing environment must contain a supporting host system running the PrintServer software product.

1.2.3 TCP/IP Networks

TCP/IP connections to PrintServer printers using Common Printer Access Protocol (CPAP), and connections to other printers using the raw TCP/IP socket protocol, require one of the following:

- Compaq TCP/IP Services for OpenVMS
- Process Software MultiNet for OpenVMS
- Process Software TCPware for OpenVMS
1.2.4 AppleTalk Networks

Printers connected to AppleTalk networks can be accessed by the DECprint Supervisor for OpenVMS software, and thus be made available to OpenVMS system users as shared network printers. This printing system configuration requires PATHWORKS for OpenVMS (Macintosh) software.

1.2.5 DDIF Printing

To print DDIF encoded bitonal images, DCPS requires that either DECwindows or DECimage Application Services (DAS) be installed on your system. DAS is only available on OpenVMS VAX systems.

1.2.6 DEC Image Print-PLUS (ICPS)

DCPS V1.1 and later versions cannot coexist with ICPS V1.x software. Installing DCPS replaces the image SYS$LIBRARY:TRN$DDIF_IMAGE.EXE. This new image is not compatible with the ICPS software.

1.3 Ensuring that All Executable Components Are Compatible

All DCPS executable components attempt to ensure they are a matched set. If a mis-match occurs, DCPS reports an error when the queue starts. This error occurs when a component of a prior (incompatible) software version exists in the SYS$SPECIFIC area and newer components are installed in the SYS$COMMON area. The error that occurs depends on which versions of which components are executing. For example:

- If the executing version of DCPS$SMB.EXE is V1.1A, and all other components are from Version 1.2, then the following error occurs on an OpenVMS VAX V5.5-2 system:

```plaintext
$ start/que atk_1152
%%%%%%%%%%%%%%%% OPCOM 13-FEB-1995 21:38:08.66 %%%%%%%%%%%%%
Message from user QUEUE_MANAGE on DAHLIA
%QMAN-E-SYMDEL, unexpected symbiont process termination

%%%%%%%%%%%%%%%% OPCOM 13-FEB-1995 21:38:08.67 %%%%%%%%%%%%%
Message from user QUEUE_MANAGE on DAHLIA
-SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=00000000, PC=0001A9B8, PSL=03C00000
```

- If the executing version of DCPS$SMBSHR.EXE is V1.1A, and all other components are from Version 1.2, then the following error occurs on an OpenVMS VAX system:

```
```
• If the executing version of DCPS$SMBSHR.EXE is V1.1A, and all other components are from Version 1.2, then the following error occurs on an OpenVMS Alpha system:
Installing the Software

This chapter describes how to install DECprint Supervisor software using the VMSINSTAL utility. If you are not familiar with the VMSINSTAL utility, refer to the OpenVMS Upgrade and Installation Manual.

2.1 Overview

Follow these steps to install the DECprint Supervisor (DCPS) for OpenVMS software:

1. Review all release notes.

2. Stop each DCPS queue using STOP/QUEUE/NEXT or STOP/QUEUE/RESET if you have existing DCPS queues and do not want the DCPS installation procedure to automatically stop them, or you have DCPS executables in the SYS$SPECIFIC system areas, or you need to apply OpenVMS or other patches that impact DCPS.

3. Remove any DCPS executables from the SYS$SPECIFIC system areas.

4. Apply OpenVMS or other patches that impact DCPS, as determined from the DCPS release notes or other sources. If the patches require that you reboot your system, do so after applying the patches.

5. Install DCPS.

6. Create or update DCPS$STARTUP.COM, as described in the DECprint Supervisor for OpenVMS System Manager’s Guide. For example, add queue definitions to the file and set the value of the DCPS$MAX_STREAMS logical following the examples provided in the procedure.

7. Start your DCPS print queues by invoking DCPS$STARTUP.COM. The DCPS installation procedure may have restarted DCPS queues that it stopped, if you chose to allow it to do so. If you changed your DCPS environment or DCPS$STARTUP.COM after the DCPS installation procedure automatically restarted some queues, you may need to stop all DCPS queues and restart them before your changes will take effect.
2.2 VMSINSTAL Conventions

VMSINSTAL will prompt you for site-specific information. Questions are preceded by an asterisk (*) and may be followed by default responses enclosed in brackets ([ ]). Enter your response followed by [Return].

Press [Return] to enter the default response. If you are not sure of the response, enter a question mark (?). VMSINSTAL displays explanatory text and repeats the prompt.

VMSINSTAL messages are documented in the *OpenVMS Upgrade and Installation Manual*. Messages specific to the installation of DECprint Supervisor software are listed in Appendix B.

2.3 Installing the Software

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**Note**

This section does not reproduce all of the text you may see on your screen during the installation of the DECprint Supervisor software. Sample VMSINSTAL installation scripts are shown in Appendix A.

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To install the software, use the following procedure:

1. **Invoke the VMSINSTAL procedure.**
   
Enter the following command:

   ```
   @SYS$UPDATE:VMSINSTAL DCPSpppnnn device-id [OPTIONS N]
   ```

   You supply the following information:

   - **DCPSpppnnn** is the save set name, with **ppp** designating the platform (AXP (Alpha) or VAX) and **nnn** designating the version (for example, 020 for V2.0).
   - **device-id** is the name of the device on which you want to mount the media, such as MUA0:.
   - **OPTIONS N** allows you to request release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. Review the release notes before proceeding with the installation. If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.
First, VMSINSTAL displays a banner line with the date and time, and instructions for running the dialog. You may receive one or more of the following warning messages when VMSINSTAL starts up. Exit from the procedure, correct the cause of the warning message, and start the VMSINSTAL procedure again.

- If you are not currently logged in to the SYSTEM account, the following message is displayed:

  `%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.`

- If processes are running while VMSINSTAL is running, the following message is displayed:

  `%VMSINSTAL-W-ACTIVE, The following processes are still active: process-name`

Other processes may cause the installation of HELP to fail. When any of these messages are displayed, the following question is displayed to allow you to terminate VMSINSTAL and correct the situation:

* Do you want to continue anyway [NO]?

Enter YES to continue. If you answer NO, the VMSINSTAL procedure is terminated immediately.

You can enter a question mark (?) at this time to display advice from the VMSINSTAL software. For example:

The above conditions may cause VMSINSTAL to function improperly.
In particular, problems may occur with file ownership if you are not logged into the SYSTEM account.

2. **Ensure that existing software is saved.**

VMSINSTAL then asks the following question:

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

Enter YES to continue, or enter NO to exit VMSINSTAL to make a backup and run VMSINSTAL again.

If you enter a question mark (?) in response to this question, VMSINSTAL displays the following explanation:

VMSINSTAL attempts to ensure that a power failure or system crash will not corrupt your system disk. However, for absolute safety we recommend that you back it up before installing new products. Please see the documentation for more information on crashes during installation.

3. **Confirm that distribution media is loaded.**
VMSINSTAL asks for confirmation that the distribution media has been mounted.

Please mount the first volume of the set on device-id:
* Are you ready?

4. **Announce products to be installed.**

VMSINSTAL then announces the products to be installed where *ppp* designates the platform and *n.n* designates the version.

The following products will be processed:

```
DCPSppp Vn.n
Beginning installation of DCPSppp Vn.n at 13:45
```

%VMSINSTAL-I-RESTORE, Restoring product saveset A

5. **Obtain the release notes.**

If you specified OPTIONS N in the VMSINSTAL command line, the following Release Notes options are displayed:

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

Additional Release Notes Options:

Release Notes Options:
(1) Display release notes
(2) Print release notes
(3) Both 1 and 2
(4) None of the above

After you enter the release note option, VMSINSTAL asks whether you want to continue the installation procedure:

Do you want to continue the installation [NO]?

If you did not include the OPTIONS N portion of the VMSINSTAL command line, VMSINSTAL does not display this question. Instead, the following message is displayed:

%VMSINSTAL-I-REMOVED, Product’s release notes have been moved to SYS$HELP

6. **Check for active DCPS queues.**

If DCPS print queues are active while VMSINSTAL is running, messages similar to the following are displayed:
%DCPSVAX-W-QUEACTIVE, The following DCPS queues are still active:

<table>
<thead>
<tr>
<th>Queue</th>
<th>Device</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN09</td>
<td>DAN::LTA9000:</td>
<td>IDLE</td>
</tr>
<tr>
<td>LN17</td>
<td>DAN::&quot;AppleTalk/Dan’s LN17+ps&quot;</td>
<td>IDLE</td>
</tr>
<tr>
<td>LN40</td>
<td>DAN::&quot;IP_RawTCP/ln40:6869&quot;</td>
<td>IDLE</td>
</tr>
<tr>
<td>LPS32</td>
<td>DAN::&quot;IP_CPAP/lps32.office.genicom.com&quot;</td>
<td>IDLE</td>
</tr>
</tbody>
</table>

%DCPSVAX-I-NUMQUEUES, 4 existing DCPS queues, with 4 active

Previously installed DCPS queues are still running. Continuing this installation without entering STOP/QUEUE/RESET for each such queue can cause inconsistent behavior among queues and can cause the IVP to fail.

Note that if you choose to have this installation procedure automatically stop such queues, and the installation subsequently aborts, this procedure will not automatically restart them.

* Do you want these queues automatically stopped and restarted [YES]?

If you do not want the installation procedure to automatically stop them, you are given the options of aborting the installation or continuing with the queues active. Continuing is not recommended.

7. Check for sufficient disk space.

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. You must allocate sufficient disk space and then start the VMSINSTAL procedure again. However, if you have already provided enough disk space, the installation procedure continues.

8. Purge extraneous versions of files.

VMSINSTAL asks if you want to purge any files that are being replaced.

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

Enter YES if you want to save disk space or NO if you think the files may still be of use.

If you enter a question mark (?) in response to this query, the following message is displayed:

During this installation, new files will be provided to replace existing versions. You may purge these older versions to save disk space, or keep them if you feel they may be of use. Purging is recommended.
9. **Define DCPS$LAYUP.**

   Next, the installation procedure looks for a definition of the logical name DCPS$LAYUP in the system table in executive mode.

   - If a definition exists, the following message is displayed:
     
     ```
     %DCPSppp-I-LAYUPDEF, DCPS$LAYUP is already defined
     -DCPSppp-I-LAYUPDEF, This installation will use its value
     ```

   - If a definition does not exist, the procedure asks you for a definition. Press [Return] to select the default, SYS$SYSROOT:[SYSHLP.EXAMPLES.DCPS], or enter a directory specification where the system layup definition files should be stored.

     ```
     * Full definition for DCPS$LAYUP [SYS$SYSROOT:[SYSHLP.EXAMPLES.DCPS]]:
     ```

     The procedure will validate the definition you provide. If you do not accept the default location and the specified directory does not exist, the procedure will ask you if you want to create it:

     ```
     DISK$USER:[MY-LAYUP-DIR] does not exist.
     * Create it? [N]?
     ```

     If you answer NO, the procedure will ask again for a definition.

10. **Create directories.**

    VMSINSTAL then attempts to create several directories. If they already exist, it displays additional messages indicating this:

    ```
    %VMSINSTAL-I-SYSDIR, This product creates system disk directory
    VMI$ROOT:[SYSTEST.DCPS].
    %CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.DCPS] already exists
    %VMSINSTAL-I-SYSDIR, This product creates system disk directory
    VMI$ROOT:[SYSHLP.EXAMPLES.DCPS].
    %CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.DCPS] already exists
    %VMSINSTAL-I-SYSDIR, This product creates system disk directory
    VMI$ROOT:[SYSHLP.EXAMPLES.DCPS.NETPRINT].
    %CREATE-I-EXISTS, VMI$ROOT:[SYSHLP.EXAMPLES.DCPS.NETPRINT] already exists
    ```

11. **Make sure the queue manager is running.**

    VMSINSTAL checks to see if the queue manager is running on your system.

    If the queue manager is not present, the Installation Verification Procedure (IVP) does not run, and the following messages are displayed on your screen:

    ```
    %DCPSppp-I-NOQUEMGR, System queue manager is not running
    -DCPSppp-I-NOQUEMGR, IVP will NOT run. Installation continuing ...
    ```
The queue manager must be running if you want the installation to run the IVP.

12. **Stop queues.**
   At this point, VMSINSTAL displays the following message on your screen:
   
   `%DCPSppp-I-NOQUEST, No further questions will be asked.`
   
   VMSINSTAL stops active DCPS queues, if any and if desired.
   
   `%DCPSppp-I-STOPQUEUES, Stopping queues previously reported as active.`

13. **Restore the remaining save sets.** As it restores each save set, VMSINSTAL reports on its progress:
   
   - VMSINSTAL-I-RESTORE, Restoring product save set B ...
   - VMSINSTAL-I-RESTORE, Restoring product save set C ...
   
   This operation may require up to 10 minutes to complete.
   
   When all the save sets have been restored, VMSINSTAL instructs you to perform postinstallation procedures. Refer to the *DECprint Supervisor for OpenVMS System Manager's Guide* for full instructions.
   
   Next, VMSINSTAL moves the files from the temporary locations used during installation to their permanent directories.
   
   `%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...`

14. **Verify a successful software loading procedure.**
   The IVP verifies that the software was loaded properly. If the system queue manager is running, the IVP runs automatically and VMSINSTAL performs the following:
   
   1. Creates a temporary print queue
   2. Queues the test files in [SYSTEST.DCPS] to the temporary print queue DCPS$IVP_TEST
   3. Displays messages similar to the following:

   ```
   Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43) started on DCPS$IVP_TEST
   %DCPS-I-JOBSTART, Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43) started on DCPS$IVP_TEST
   
   Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43) completed
   Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44) started on DCPS$IVP_TEST
   %DCPS-I-JOBSTART, Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44) started on DCPS$IVP_TEST
   ```
Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44) completed
Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45) started on DCPS$IVP_TEST
Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45) completed
Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46) started on DCPS$IVP_TEST
Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46) completed
Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47) started on DCPS$IVP_TEST
Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47) completed
Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48) started on DCPS$IVP_TEST
Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48) completed
Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49) started on DCPS$IVP_TEST
Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49) completed

Note

The IVP does not produce any hardcopy output.

The IVP procedure automatically deletes the temporary queue when the IVP completes. You can print the IVP test files to a real printer later. (Refer to the DECprint Supervisor for OpenVMS System Manager’s Guide.)
You can also manually invoke the IVP after the installation by entering:

$ @SYS$TEST:DCPS$IVP

VMSINSTAL issues an informational message when the IVP is completed:

IVP successful for OpenVMS DECprint Supervisor for OpenVMS Software

15. **Restart queues.**

VMSINSTAL restarts previously stopped queues if the installation is successful and issues its final messages:
%DCPSp-pp-I-STARTQUEUES, Restarting queues previously reported as active.
   Installation of DCPSp-pp Vn.n completed at 14:04
   WMSINSTAL procedure done at 14:08

16. Where to go from here.
    Refer to the DECprint Supervisor for OpenVMS System Manager's Guide
    for instructions on how to create print queues and customize your printing
    environment.
Sample Installation Sessions

This appendix shows sample installations of the DECprint Supervisor software on both OpenVMS Alpha and VAX systems, with and without the DCPS software already present on the system.

Example A–1 shows a sample of an initial installation of the DECprint Supervisor software on an OpenVMS Alpha system. Example A–2 shows a sample upgrade of the DECprint Supervisor software on an OpenVMS VAX system.

Example A–1  Sample Installation on an OpenVMS Alpha System

$ @SYS$UPDATE:VMSINSTAL DCPSAXP CDROM: OPTIONS N

OpenVMS Alpha Software Product Installation Procedure V7.2-1

It is 15-MAR-2001 at 23:02.

Enter a question mark (?) at any time for help.

%VMSINSTAL-W-ACTIVE, The following processes are still active:
  ANDERSON
  KAMATH
  SCHULLMAN

* Do you want to continue anyway [NO]? Y
* Are you satisfied with the backup of your system disk [YES]?

The following products will be processed:

   DCPSAXP V2.0

   Beginning installation of DCPSAXP V2.0 at 23:02

%VMSINSTAL-I-RESTORE, Restoring product save set A ...

(continued on next page)
Example A–1 (Cont.) Sample Installation on an OpenVMS Alpha System

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]: 4

* Do you want to continue the installation [NO]? Y

%VMSINSTAL-I-RELMOVED, Product’s release notes have been moved to SYS$HELP.

%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSTEST.DCPS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSHLP.EXAMPLES.DCPS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory VMI$ROOT:[SYSHLP.EXAMPLES.NETPRINT].
%DCPSAXP-I-ESTTIME, This installation will take between 1 and 10 minutes.
%DCPSAXP-I-NOQUEST, No further questions will be asked.
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%VMSINSTAL-I-RESTORE, Restoring product save set C ...

Software installer:

Starting with DCPS V2.0, the need for DCPS-OPEN and DCPS-PLUS licenses has been eliminated. The right to use all features of DCPS is now included with the OpenVMS operating system license.

Please remember to copy SYS$STARTUP:DCPS$STARTUP.TEMPLATE to SYS$STARTUP:DCPS$STARTUP.COM. Then edit the resulting copy, following the instructions contained within it, to define your DCPS environment and queue characteristics. When done, execute the file to establish and start the DCPS queues.

Also remember to edit SYS$MANAGER:SYSTARTUP_VMS.COM so that DCPS$STARTUP.COM is automatically run at system startup time.

(continued on next page)
Example A–1 (Cont.) Sample Installation on an OpenVMS Alpha System

DCPS$STARTUP.COM should be executed after all printer devices and interconnects are running. Below is a summary list:

- printers via TCP/IP: after TCP is started
- printers via LAT: after LAT devices are created
- printers via AppleTalk: after the AppleTalk driver is loaded
- PrintServers via DECnet: after DECnet is started

%VMSINSTALL-I-MOVEFILES, Files will now be moved to their target directories...
%DCPS-I-IVP, Beginning IVP...

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* * Installation Verification Procedure * *
* * Compaq DECprint Supervisor (DCPS) for OpenVMS * *
* * Copyright 1993-2001 Compaq Computer Corporation * *
* * All Rights Reserved * *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

IVP using Version DCPS V2.0 of DECprint Supervisor

Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 104) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 104) started on DCPS$IVP_TEST

Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 104) completed
Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 105) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 105) started on DCPS$IVP_TEST

Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 105) completed
Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 106) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 106) started on DCPS$IVP_TEST

Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 106) completed
Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 107) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 107) started on DCPS$IVP_TEST

Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 107) completed
Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 108) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 108) started on DCPS$IVP_TEST

(continued on next page)
Example A–1  (Cont.)  Sample Installation on an OpenVMS Alpha System

Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 108) completed
Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 109) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 109) started on DCPS$IVP_TEST
Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 109) completed
Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 110) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 110) started on DCPS$IVP_TEST
Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 110) completed

IVP successful for DECprint Supervisor DCPS V2.0
Installation of DCPSAXP V2.0 completed at 23:04
Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY
Creating installation data file: VMI$ROOT:[SYSUPD]DCPSAXP014.VMI_DATA
VMSINSTAL procedure done at 23:05
$

Example A–2  Sample Upgrade on an OpenVMS VAX System

$ @SYS$UPDATE:VMSINSTAL DCPSVAX CDROM: OPTIONS N

OpenVMS VAX Software Product Installation Procedure V7.2

It is 13-MAR-2001 at 12:24.
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:
DCPSVAX V2.0

Beginning installation of DCPSVAX V2.0 at 12:24
%VMSINSTAL-I-RESTORE, Restoring product save set A ...
Release notes included with this kit are always copied to SYSSHELP.
Additional Release Notes Options:

(continued on next page)
Example A–2 (Cont.) Sample Upgrade on an OpenVMS VAX System

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

* Select option [2]: 4
* Do you want to continue the installation [NO]? Y

%VMSINSTAL-I-RELMOVED, Product’s release notes have been moved to SYSSHLP.

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* Compaq DECprint Supervisor (DCPS) for OpenVMS
* Copyright 1993-2001 Compaq Computer Corporation
* All Rights Reserved
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

%DCPSVAX-W-QUEACTIVE, The following DCPS queues are still active:

<table>
<thead>
<tr>
<th>Queue</th>
<th>Device</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN09</td>
<td>DAN::LTA9000:</td>
<td>IDLE</td>
</tr>
<tr>
<td>LN17</td>
<td>DAN::&quot;AppleTalk/Dan’s LN17+ps&quot;</td>
<td>IDLE</td>
</tr>
<tr>
<td>LN40</td>
<td>DAN::&quot;IP_RawTCP/ln40:6869&quot;</td>
<td>IDLE</td>
</tr>
</tbody>
</table>

%DCPSVAX-I-NUMQUEUES, 4 existing DCPS queues, with 3 active

Previously installed DCPS queues are still running.
Continuing this installation without entering
STOP/QUEUE/RESET for each such queue can cause
inconsistent behavior among queues and can cause
the IVP to fail.

Note that if you choose to have this installation
procedure automatically stop such queues, and the
installation subsequently aborts, this procedure
will not automatically restart them.

* Do you want these queues automatically stopped and restarted [YES]?
* Do you want to purge files replaced by this installation [YES]?

(continued on next page)
%DCPSVAX-I-LAYUPDEF, DCPS$LAYUP is already defined
-DCPSVAX-I-LAYUPDEF, This installation will use its value
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSTEST.DCPS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSTEST.DCPS] already exists
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSLHP.EXAMPLES.DCPS].
%CREATE-I-EXISTS, VMI$ROOT:[SYSLHP.EXAMPLES.DCPS] already exists
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
  VMI$ROOT:[SYSLHP.EXAMPLES.DCPS.NETPRINT].
%CREATE-I-EXISTS, VMI$ROOT:[SYSLHP.EXAMPLES.DCPS.NETPRINT] already exists
%DCPSVAX-I-ESTTIME, This installation will take between 1 and 10 minutes,
  -DCPSVAX-I-ESTTIME, excluding time needed to stop and restart active queues.
%DCPSVAX-I-NOQUEST, No further questions will be asked.
%DCPSVAX-I-STOPQUEUES, Stopping queues previously reported as active.
%VMSINSTAL-I-RESTORE, Restoring product save set B ...
%VMSINSTAL-I-RESTORE, Restoring product save set C ...

Software installer:

Starting with DCPS V2.0, the need for DCPS-OPEN and DCPS-PLUS
licenses has been eliminated. The right to use all features of
DCPS is now included with the OpenVMS operating system license.

Please remember to copy SYS$STARTUP:DCPS$STARTUP.TEMPLATE to
SYS$STARTUP:DCPS$STARTUP.COM. Then edit the resulting copy,
following the instructions contained within it, to define
your DCPS environment and queue characteristics. When done,
execute the file to establish and start the DCPS queues.
Also remember to edit SYS$MANAGER:SYSTARTUP_VMS.COM so that
DCPS$STARTUP.COM is automatically run at system startup time.

DCPS$STARTUP.COM should be executed after all printer devices
and interconnects are running. Below is a summary list:

  printers via TCP/IP: after TCP is started
  printers via LAT: after LAT devices are created
  printers via AppleTalk: after the AppleTalk driver is loaded
  PrintServers via DECnet: after DECnet is started

If you are converting CPS queues to DCPS, you may want to run
the utility SYS$STARTUP:CPS_TO_DCPS_STARTUP.COM instead of
editing the startup template. This utility will read your
CPS startup file, change the queue definitions to use DCPS$SMB
and its library and logical names, and write out a new DCPS
startup file.

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
%DCPS-I-IVP, Beginning IVP...

(continued on next page)
Sample Upgrade on an OpenVMS VAX System

IVP using Version DCPS V2.0 of DECprint Supervisor

Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43)
started on DCPS$IVP_TEST

Job DCPS$IVP_POST (queue DCPS$IVP_TEST, entry 43) completed
Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44)
started on DCPS$IVP_TEST

Job DCPS$IVP_ANSI (queue DCPS$IVP_TEST, entry 44) completed
Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45)
started on DCPS$IVP_TEST

Job DCPS$IVP_REGIS (queue DCPS$IVP_TEST, entry 45) completed
Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46)
started on DCPS$IVP_TEST

Job DCPS$IVP_TEK4014 (queue DCPS$IVP_TEST, entry 46) completed
Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47)
started on DCPS$IVP_TEST

Job DCPS$IVP_PCL (queue DCPS$IVP_TEST, entry 47) completed
Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48)
started on DCPS$IVP_TEST

Job DCPS$IVP_PROPRINTER (queue DCPS$IVP_TEST, entry 48) completed
Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49) started on DCPS$IVP_TEST
%DCPS-I-JOBSTART, Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49)
started on DCPS$IVP_TEST

Job DCPS$IVP_LIST (queue DCPS$IVP_TEST, entry 49) completed

IVP successful for DECprint Supervisor DCPS V2.0
Example A–2 (Cont.) Sample Upgrade on an OpenVMS VAX System

%DCPSVAX-I-STARTQUEUES, Restarting queues previously reported as active.

Installation of DCPSVAX V2.0 completed at 12:27

VMSINSTAL procedure done at 12:27

$
This appendix describes the DECprint Supervisor messages in the following sections:

- Overview of messages, Section B.1
- DCPS Installation Messages, Section B.2

### B.1 System Message Overview

#### B.1.1 Message Format

DECprint Supervisor system messages have one of the following formats:

- `%fac-s-ident, text`
- `-fac-s-ident, text`

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>%</code></td>
<td>The prefix for all primary messages</td>
</tr>
<tr>
<td><code>-</code></td>
<td>The prefix for all continuation messages</td>
</tr>
<tr>
<td><code>fac</code></td>
<td>The facility code, which should be DCPS</td>
</tr>
<tr>
<td><code>s</code></td>
<td>The severity level of the message</td>
</tr>
<tr>
<td><code>ident</code></td>
<td>An abbreviation of the message text</td>
</tr>
<tr>
<td><code>text</code></td>
<td>The expanded text of the message</td>
</tr>
</tbody>
</table>
B.1.2 Severity Level

The severity levels of DECprint Supervisor system messages are defined as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Success — successful completion of the request</td>
</tr>
<tr>
<td>I</td>
<td>Informational — may require user action</td>
</tr>
<tr>
<td>W</td>
<td>Warning — request may not have completed and may require user action</td>
</tr>
<tr>
<td>E</td>
<td>Error — system encountered an error that may be recoverable</td>
</tr>
<tr>
<td>F</td>
<td>Fatal — system encountered a fatal error and cannot continue processing this request</td>
</tr>
</tbody>
</table>

B.2 DCPS Installation Messages

The following DCPS message descriptions are alphabetized by the ident portion of the message. The message severity level and text are also shown, while the prefix and facility designation (DCPSppp are omitted. If you receive a message from a facility other than DCPS, refer to the OpenVMS System Messages: Companion Guide for Help Message Users for the message description or use the online help message utility with the command HELP /MESSAGE.

E-BADSPEC, File spec LPS$SINGLEHOLES.LUP cannot be parsed

**Explanation:** The current definition of the logical name DCPS$LAYUP is invalid, possibly because of an incorrect answer given to the question about the location of layup files in an earlier DCPS installation. (DCPS V1.6 and later now validate such responses; see the Release Notes for more information.)

**User Action:** Deassign the logical name with the command:

```
$ DEASSIGN /SYSTEM /EXECUTIVE_MODE DCPS$LAYUP
```

Then start the DCPS installation again and you will be prompted for the location for the layup files.

E-BADVMSVER, This product requires OpenVMS version version or later to install

**Explanation:** The DCPS software requires a later version of the OpenVMS operating system.

**User Action:** Upgrade your operating system to the correct version.
I-ESTTIME, This installation will take between 1 and 10 minutes,
I-ESTTIME, excluding time needed to stop and restart active queues.

**Explanation:** This informational message estimates the time it will take
to install the software.

**User Action:** No action is required.

W-HIDES, If these files remain, they will be used instead of the
W-HIDES, DCPS product files you are installing now, and the IVP

**Explanation:** DECprint Supervisor for OpenVMS warns you that the
existing DCPS files in SYS$SPECIFIC directories will be used instead of
the latest ones.

**User Action:** Remove or rename the listed DCPS files from the
SYS$SPECIFIC directories.

E-INVDIRSPE, invalid directory specification

**Explanation:** The syntax of the directory specified is not correct.

**User Action:** Specify a directory with correct syntax.

I-LAYUPDEF, DCPS$LAYUP is already defined.
I-LAYUPDEF, This installation will use its value.

**Explanation:** The installation uses the existing logical name for
DCPS$LAYUP.

**User Action:** No action is required.

I-NOHELP, There is no help in this install procedure.
I-NOHELP, Please refer to the Software Installation Guide.

**Explanation:** This informational messages states that no help is
available.

**User Action:** Refer to the *Software Installation Guide* for more
information.

I-NOQUEMGR, System queue manager is not running.
I-NOQUEMGR, IVP will NOT be run. Installation continuing.

**Explanation:** The queue manager is not running on your system. The
installation will continue, but the Installation Verification Procedure
cannot run.

**User Action:** After the installation, start the queue manager and then
manually invoke the IVP (@SYS$TEST:DCPS$IVP).
I-NOQUEST, No further questions will be asked

**Explanation:** The VMSINSTAL procedure will continue from this point without requiring further input from you.

**User Action:** No action is required.

W-NORSTRRT, Automatically stopped queues have not been restarted

**Explanation:** VMSINSTAL has not restarted queues that it automatically stopped.

**User Action:** Resolve the problem that caused the installation to terminate abnormally, and then manually restart the queues that the DCPS installation procedure previously listed as active.

E-NOSUCHDEV, no such device available

**Explanation:** The device specified does not exist.

**User Action:** Specify a device that exists on your system.

E-NO_DECC_RTL, DEC C run-time library is not installed.

**Explanation:** There is no DEC C run-time library on your system.

**User Action:** Install the DEC C/C++ Run-Time Components kit.

E-NO_QUEMAN, This product requires the queue management facility to install.

**Explanation:** The queue manager could not be found. The installation procedure is aborted.

**User Action:** Start the queue manager. For information refer to the *OpenVMS System Manager’s Reference Manual*.

E-NO_SPACE, This product requires *number* blocks of disk space to install.

**Explanation:** There are not enough free disk blocks to install this software. The installation procedure terminates.

**User Action:** Ensure that you have at least the specified number of free disk blocks and restart the installation.

I-NUMQUEUES, *existing-number* existing DCPS queues, with *active-number* active.

**Explanation:** This message informs you of the number of DCPS queues you have and how many of them are active (that is, not stopped).

**User Action:** No action is required.
W-PURGW, Purging files may leave running queues with no image
W-PURGW, file and the IVP may fail.
   **Explanation:** Purging DCPS files while multistream DCPS symbionts are still active can cause problems.
   **User Action:** Avoid purging existing files, or stop all active queues before proceeding with the installation.

I-QSCANNING, Looking for existing DCPS print queues...
   **Explanation:** This informational message tells you that the installation procedure is checking for print queues that already exist.
   **User Action:** No action is required.

W-QUEACTIVE, The following queues are still active:
   **Explanation:** The installation procedure found some DCPS queues still active, as listed in subsequent lines. If you do not stop the active queues, the installation may fail or interfere with jobs that are currently printing.
   **User Action:** When subsequently asked, allow VMSINSTAL to automatically stop the queues, or manually stop them yourself and restart the installation procedure. If some of the queues are not in an idle state, you may wish to wait until all jobs have finished printing.

I-STARTQUEUES, Restarting queues previously reported as active
   **Explanation:** VMSINSTAL is currently restarting all queues it had previously reported as active.
   **Explanation:** No action is required.

I-STOPQUEUES, Stopping queues previously reported as active
   **Explanation:** VMSINSTAL is currently stopping all queues it had previously reported as active.
   **User Action:** No action is required.

W-SYSPF, This system contains DCPS images in SYS$SPECIFIC areas:
   **Explanation:** Your system has one or more DCPS executable images in a SYS$SPECIFIC directory, as listed in subsequent lines. The new images that you are about to install will not be used because of the presence of the SYS$SPECIFIC versions.
   **User Action:** Delete or rename the DCPS files in the SYS$SPECIFIC directories, so that new ones in SYS$COMMON will be used.
F-WRONGARCH, This product will only install on OpenVMS platform.

**Explanation:** You have attempted to install the kit on the wrong platform.

**User Action:** Install the kit on either an Alpha or VAX platform, as indicated by the message, or use a different kit for the current platform.
Ordering Additional Documentation

This appendix lists Compaq software documents and documentation kits associated with PostScript printers, and their respective order numbers.

The asterisk (*) in an order number stands for the latest version of the document or kit.

### PrintServer Software

<table>
<thead>
<tr>
<th>Software Document</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital UNIX</td>
<td>QA-0V9AJ-GZ</td>
</tr>
<tr>
<td>HP-UX</td>
<td>QA-0V9AD-GZ</td>
</tr>
<tr>
<td>IBM-AIX</td>
<td>QA-0V9AE-GZ</td>
</tr>
<tr>
<td>IRIX</td>
<td>QA-0V9AQ-GZ</td>
</tr>
<tr>
<td>OpenVMS</td>
<td>QA-0V9AA-GZ</td>
</tr>
<tr>
<td>Solaris</td>
<td>QA-0V9AK-GZ</td>
</tr>
<tr>
<td>SunOS</td>
<td>QA-0V9AC-GZ</td>
</tr>
<tr>
<td>ULTRIX</td>
<td>QA-0V9AB-GZ</td>
</tr>
<tr>
<td>Windows</td>
<td>QA-0V9AH-GZ</td>
</tr>
</tbody>
</table>

**Note**

PrintServer Software is being retired in 2001. This documentation may no longer be available.

### PostScript Programming Documentation

- *PrintServer Printers PostScript Level 2 Programmer’s Supplement*  
  (order number: EK–PRTPL–PS)

- *PostScript Printers Programmer’s Supplement*  
  (order number: AA–HL84*–TE)
DECprint Supervisor Software for OpenVMS
The following is the DECprint Supervisor Software for OpenVMS documentation.

Complete documentation kit (order number: QA–09NAA–GZ)

- DECprint Supervisor for OpenVMS Software Installation Guide
- DECprint Supervisor for OpenVMS System Manager’s Guide
- DECprint Supervisor for OpenVMS User’s Guide

DIGITAL ANSI-Compliant Level 3 Printing Protocol
The following is the DIGITAL ANSI-Compliant Level 3 Printing Protocol documentation.

Documentation kit (order number: QA–YNCA–GZ)

- DIGITAL ANSI-Compliant Printing Protocol Level 3 Programming Supplement
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