

Compaq DECprint Supervisor (DCPS) for OpenVMS

Release Notes

July 2002

These release notes describe restrictions, usage hints, and other useful information for DECprint Supervisor (DCPS) for OpenVMS.

Revision/Update Information:	These release notes supersede all other documentation.
Operating System & Versions:	OpenVMS Alpha Version 6.2, 7.2-2, 7.3 or 7.3-1 OpenVMS VAX Version 5.5-2, 7.2 or 7.3
Software Version:	DECprint Supervisor (DCPS) for OpenVMS, Version V2.1

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The *DECprint Supervisor* documentation set is available on CD-ROM.

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Preface

Introduction

The primary source of information about DECprint Supervisor (DCPS) for OpenVMS, Version V2.1 is the following set of software manuals:

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

Also see the *DECprint Supervisor for OpenVMS Software Product Description* (SPD 44.15.xx), which contains a full list of printers supported by DCPS and other important information.

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These release notes provide detail on the following:

- Product changes since previous versions. Some changes provide new features or new printer support. Other changes have been made to correct problems with earlier versions.
- Restrictions in DECprint Supervisor Version V2.1.
- Additional information about DECprint Supervisor

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.

DCPS Version 2.1 Information

This section describes changes included in DCPS V2.1. You can find more information for several of these changes elsewhere in these release notes.

1.1 DCPS Version 2.1 Changes

1.1.1 New Printers Supported

DCPS V2.1 adds support for the following printers:

- GENICOM Intelliprint cL160
- GENICOM Intelliprint mL402
- GENICOM Intelliprint mL450
- GENICOM LN45
- HP Color LaserJet 4600
- HP LaserJet 2200
- HP LaserJet 4100
- HP LaserJet 9000
- IBM Infoprint 21
- IBM InfoPrint 32
- IBM InfoPrint 40
- Lexmark C720
- Lexmark C910
- Lexmark T520
- Lexmark T522
- Lexmark T620
- Lexmark T622
- Lexmark W820
- Xerox DocuPrint N24
- Xerox DocuPrint N32
- Xerox DocuPrint N40

1.1.2 Stapling Support

DCPS V2.1 now supports the optional stapler on the previously-supported HP LaserJet 8000, 8100 and 8150 printers, as well as the newly-supported HP LaserJet 9000 and Lexmark W820 printers.

You can find more information in Chapter 4 of these release notes.

1.1.3 New PUNCH Parameter For Punched Output

DCPS now supports punched output on printers equipped with a puncher. The parameter PUNCH or NOPUNCH can be specified on the command line. For example:

```
$ PRINT /PARAMETERS=PUNCH myfile.ps
```

There are no values to the PUNCH parameter. The position of the punched holes is determined by the orientation of the paper in the printer, and the number and spacing of holes is determined by the printer. If NOPUNCH is specified, the job will not be punched, overriding the printer's default punching setting.

DCPS currently supports punching with the following printers:

GENICOM Intelliprint mL450
GENICOM LN45
Lexmark Optra W810
Lexmark W820

1.1.4 New Paper Size

DCPS now supports the paper size INDEXCARD (216 x 360 mm; 3 x 5 inches). You can specify these sizes as the logical PAGE_SIZE value for any printer, and as the physical SHEET_SIZE value for the IBM Infoprint 21 and Xerox DocuPrint N2125 printers.

1.1.5 Additional Name for Optional Stacker Bins

The optional stacker bins on some printers can now be referenced with the name STACKER in addition to their existing names of BIN_1 or OCT. These printers include:

Compaq Laser Printer LN32
Compaq Laser Printer LNM40
GENICOM LN28
GENICOM microLaser 280
GENICOM microLaser 320
GENICOM microLaser 401

1.1.6 Startup Procedure Changes

The user-modifiable part of the DCPS startup procedure, distributed as SYS\$STARTUP:DCPS\$STARTUP.TEMPLATE, has been reformatted for clarity.

The following changes have been made to the DCPS startup procedure:

- The DCPS version number is displayed.
- The versions of DCPS\$STARTUP.COM and DCPS\$STARTUP.TEMPLATE are checked. If there is a newer version of DCPS\$STARTUP.TEMPLATE available, the following message is displayed:

```
%DCPS-I-NEWSTARTUP, newer version of DCPS$STARTUP available
```

If this message appears, you should copy DCPS\$STARTUP.TEMPLATE to .COM and move your site-specific changes from DCPS\$STARTUP.COM to this new version.

1.1.7 DCPS Version Logical Name

The software version number of the currently-running version of DCPS is now displayed in the logical name DCPS\$VERSION.

1.1.8 Suppressing USERNOTFOUND Messages for All Queues

If an OpenVMS cluster has more than one User Authorization file (UAF), it is possible the user submitting a print job does not have a UAF record on the system running the DCPS queue. DCPS would then issue a USERNOTFOUND operator message. (See the *DECprint Supervisor for OpenVMS System Manager's Guide* for more information.)

Starting with DCPS V1.1, the logical name `DCPS$queue_name_IGNORE_UNKNOWN_USER` could be defined for a queue, which would suppress USERNOTFOUND error messages for that queue.

DCPS V2.1 adds a new logical name, `DCPS$IGNORE_UNKNOWN_USER`, which, when defined, suppresses USERNOTFOUND messages for all DCPS queues on the system. The value of the logical name should be TRUE or 1:

```
$ DEFINE /EXECUTIVE_MODE /SYSTEM DCPS$IGNORE_UNKNOWN_USER TRUE
```

1.1.9 Old Release Notes Removed

Chapters in these release notes referring to previous versions of DCPS have been removed. Information contained in the old release notes has been moved to the *DECprint Supervisor for OpenVMS System Manager's Guide* and *DECprint Supervisor for OpenVMS User's Guide* where appropriate.

1.1.10 NETPRINT Utility Moved

The following changes were made to the distribution of the unsupported NETPRINT utility:

- NETPRINT files are now installed in the DCPS examples directory `SYSSCOMMON:[SYSHLP.EXAMPLES.DCPS]` instead of the `[.NETPRINT]` subdirectory.
- The file name of the NETPRINT ZIP archive has been changed from `NETPRX11.ZIP` to `NETPRINT.ZIP`.
- The file name of the “read me” file has been changed from `README.TXT` to `NETPRINT.TXT`.
- The UNZIP program `UNZIP50.EXE` is no longer installed. Current versions of UNZIP can be found in many places, including the OpenVMS Freeware CD.

1.2 DCPS Version 2.1 Fixes

The following problems are fixed in DCPS V2.1.

1.2.1 STREAMUSE Error Prevents Queue from Starting

Under certain conditions, DCPS issued the following error message when trying to start a queue:

```
%DCPS-F-STREAMUSE, Request 4 for Stream Id n ignored.  
Not consistent with symbiont state
```

It was not possible to start the queue without first stopping other queues or deleting symbiont processes from the system. It was also possible for the symbiont process associated with this queue to use excessive amounts of CPU time.

This problem was often seen when trying to stop stalled queues with a STOP /QUEUE /RESET command. The problem was seen frequently when using certain printer network cards, such as the Emulex NetJet card.

The fix in DCPS V2.1 also reduces the amount of time DCPS will spend waiting for a response from a printer after a STOP /QUEUE /RESET has been issued before stopping the queue.

1.2.2 MOPy Prevents Multiple-File Jobs from Printing

With certain printers, specifying multiple copies with the JOB_COUNT parameter in a job with multiple files, the job would fail with the message:

```
%DCPS-E-NOMOPY, MOPy not supported with multiple files
```

Starting with DCPS V1.8, DCPS started taking advantage of the MOPy (multiple original print) feature in certain printers, allowing the printer to produce multiple copies without sending the file to the printer multiple times. A restriction of this support was that jobs with multiple files could not be printed. The printers are:

- Compaq Laser Printer LNC02
- DIGITAL Laser Printer LN20
- DIGITAL Laser Printer LN40
- DIGITAL Laser Printer LNC02

This MOPy support has been removed in DCPS V2.1, restoring the pre-V1.8 behavior. This may cause a minor decrease in performance but restores the ability to print multiple copies of multiple files when using these printers.

1.2.3 Changing Printer Password Inhibits DCPS Error Page

If you changed a printer's PostScript password from its default of 0, DCPS would not print an error page if a job ended in error.

1.2.4 Lexmark Optra Se 3455 Trays Not Selectable

With DCPS V2.0, it was not possible to select optional trays on the Lexmark Optra Se 3455 printer. Input trays TRAY_4 and TRAY_5, and output trays BIN_1, BIN_2 and BIN_3 were not selectable. The standard output tray was also not selectable if the printer's default output tray was not set to the standard output tray.

DCPS Restrictions

The following sections identify the current restrictions that exist with DECprint Supervisor. See the *DECprint Supervisor for OpenVMS System Manager's Guide* and *DECprint Supervisor for OpenVMS User's Guide* for printer-specific restrictions.

2.1 Printers with Auto-Sensing Features

Many printers can sense the data type of a print job. Such printers allow you to specify how and whether the auto-sensing feature is enabled, per interconnect channel, through the front panel or printer management software.

For most printers that offer this feature, the DECprint Supervisor software works properly when the printer is set to "PostScript" mode, or to "Auto-Sensing" mode. You must set such printers to operate in one of these modes before starting the DCPS queues. The DCPS software does not operate properly if the printer is set to "PCL" mode.

See Chapter 4 and the *DECprint Supervisor for OpenVMS System Manager's Guide* for additional information.

2.2 Job Remains in Starting State for Raw TCP/IP or LAT Queue

Most printers respond to the PostScript synchronization command at the beginning of a DCPS job, but some do not. If all jobs to a queue remain in the Starting state, you may need to take one of the following steps:

- **Change Printer Language Setting**
Often, setting the printer's language-sensing mode to PostScript, instead of auto-sensing between PostScript and PCL, will solve the problem. Refer to your printer documentation for instructions on changing the language for the appropriate port. This is the preferred method for avoiding the problem.
- **Define NO_SYNC Logical Name**
If the problem is not solved by changing the printer setting, you can tell DCPS to skip the PostScript synchronization command by defining the logical name `DCPS$queuename_NO_SYNC` and restarting the queue. This works with printers that use raw TCP/IP or LAT connections on built-in Network Interface Cards (NICs). It has no effect when using printers connected via other interconnects.

2.3 Job Remains in Starting State for Raw TCP/IP Queue

If you set up a DCPS queue that uses a raw TCP/IP connection and specify an incorrect TCP port number for the printer, any print jobs that you submit to the queue will remain in a starting state. DCPS cannot determine that you have provided an incorrect port number, because the network failure that it receives is no different than if the printer had been busy or offline.

Note that a print job in a raw TCP/IP queue may remain in a starting state for other reasons as well.

Check the documentation for your printer, network interface card, print server, or terminal server to determine the correct TCP port number to use. The TCP port number may also be listed in Table A-1.

2.4 Connection Terminations for Raw TCP/IP Queue

You may get `CONTERMINATED` errors for long print jobs when using raw TCP/IP connections. For jobs that consist of a single file or only use the native PostScript capability of the printer (for example, they do not use native PCL), these errors are most likely to occur at the end of the job, with job trailer pages (if specified for the queue) and print job accounting (if enabled) being lost. For other jobs, these errors may occur in the middle of the job, with subsequent documents as well as the trailer pages and accounting information being lost. DCPS requeues the terminated jobs, placing them in a Holding state so that you can reprint them once you resolve the termination problem.

Some network devices, including the HP JetDirect cards, drop a TCP/IP connection if they do not receive any input from the host system within a specified amount of time. This is a feature, meant to prevent host software from monopolizing the device. DCPS, however, waits for the printer to acknowledge that previous documents are printed before switching from PostScript to some other native printer language and also before printing a trailer page and gathering accounting information. Even though the printer may be busy, the NIC may not receive any more input from DCPS before the timeout is reached.

If your NIC allows you to alter the TCP/IP idle timeout value, you can work around this problem by disabling or increasing the timeout. Check your NIC documentation to determine if this is possible, and how to do it. Then release any requeued jobs for which desired output was lost, and delete the other requeued jobs.

Note that it is the length of a job in time (versus size) that is important. For example, a very small PostScript program can take a very long time to print. Hence, it is difficult to predict how large a timeout is adequate.

2.5 NOT_READY Warnings for Unavailable Raw TCP/IP Printer

If a job is queued to a printer that uses a raw TCP/IP connection, and the printer is busy or offline, you will get `NOT_READY` warning messages for the printer.

If you believe or determine that the printer is busy, you can ignore these messages. DCPS cannot, unfortunately, differentiate between the printer being busy, offline, or otherwise unavailable.

2.6 Translators Do Not Generate Color PostScript

The translators provided with DCPS (for example, ReGIS) do not generate color PostScript commands, even if your source file contains color information. The colors are instead translated to various shades of gray.

2.7 Job Trailer Page Jogs with PostScript Level 2 Printers

When job jogging is enabled on PostScript Level 2 printers to separate jobs by offsetting them, jogging occurs between the body of a job and its trailer page (if any).

2.8 Unable to Perform ANSI Tray Selection for Certain Printers

An attempt to print an ANSI file containing a tray selection escape sequence might fail, depending on which printer you are using. If so, the job might abort with a PostScript configuration error, with the offending command being “setpapertray”.

Also, some printers, such as the Compaq Laser Printer LN16 and GENICOM microLaser 170, have input trays with PostScript tray numbers of 0. The ANSI escape sequence DECASFC is used to select trays, but a value of 0 means “no tray change” and selecting tray 0 is therefore not possible. For example, an ANSI escape sequence of

```
<CSI>0!v
```

does not select tray 0, but rather indicates no change of tray.

A workaround to this problem is to create and subsequently invoke a setup module that redefines the settoptray, setbottomtray, setlcitrays and setmanualfeedtray PostScript commands within the TRN\$XLATE_DICT dictionary.

For example, for a Compaq Laser Printer LN16, DIGITAL Laser Printer LN15 or LN15+, or GENICOM microLaser 170, you should create a setup module that contains the following definitions for settoptray, setbottomtray and setmanualfeedtray:

```
TRN$XLATE_DICT begin
/settoptray      { statusdict begin 0 setpapertray end } def
/setbottomtray   { statusdict begin 1 setpapertray end } def
/setmanualfeedtray { statusdict begin 3 setpapertray end } def
end
```

For an HP LaserJet 4M Plus, you should create a setup module that contains:

```
TRN$XLATE_DICT begin
/settoptray      { statusdict begin 3 setpapertray end } def
/setbottomtray   { statusdict begin 0 setpapertray end } def
/setlcitrays     { statusdict begin 1 setpapertray end } def
end
```

PostScript tray numbers are documented in the *DECprint Supervisor for OpenVMS User's Guide*.

2.9 AppleTalk Queues Do Not Start or Jobs Remain in Starting State

The first print queue in the process to use AppleTalk fails with the following error and the queue does not start:

```
%DCPS-W-ATK_FOR_VMS, Error connecting to AppleTalk for VMS driver
```

If other queues using the AppleTalk interconnect are started on that same process this error is not reported. These queues will start, but jobs on these queues remain in the “starting” state.

If a queue using the AppleTalk interconnect is started before the AppleTalk network software is running, then the queue might start but will not be functional. This occurs when DCPS is running as a multistreamed symbiont and another print queue is running in the same process.

To recover from such an error, stop all queues supported by any currently running symbiont processes that have detected that the AppleTalk network software is not running (one error message is generated per symbiont process). Restart the AppleTalk software and the queues.

To avoid this problem, run the AppleTalk network software before starting any DCPS print queues.

2.10 Some Printers Do Not Send Status Messages to the Host

Some PostScript printers, because of their internal architecture, report status information only to the printer console and not to the host system with which they are communicating. As a result, DCPS is not aware of some status conditions (for example, paper out, paper jam, page too complex, cover open, etc.) and cannot report them to you. Instead, the DCPS queue will enter the Stalled state if DCPS subsequently attempts to communicate with the printer. This subsequent attempt may come during the same job that first experienced the problem or in a later one.

The following is a list of some of the printers which exhibit this behavior:

- DEClaser 5100 printer
- LN17ps printer
- some HP LaserJet III and IV printers (but not the HP LaserJet III with the HP PostScript-Plus Level 2 cartridge or the HP LaserJet IIISi if jam recovery is disabled)

2.11 Printer Name Is Not Always Printed Correctly

When multinational characters are used in the PostScript “printername”, the printer name printed on the bottom of separation pages may be printed in the wrong character set.

2.12 DDIF Printing Requires DECwindows Software or DECimage Application Services

To print DDIF encoded bitonal images, DCPS requires that either DECwindows software or Version 3.1 of DECimage Application Services (DAS) be installed on your system. DAS is only available on OpenVMS VAX systems.

2.13 Compatibility of NUMBER_UP and PostScript Drivers

PostScript files created with the LaserWriter 8.0 or 8.1.1 driver or the Adobe 2.1.1 Windows driver in conjunction with the application may produce PostScript files that do not print as expected with NUMBER_UP greater than 1.

Symptoms include pages being clipped, printed outside of the NUMBER_UP page spots, or being improperly scaled.

2.14 LIST Translator Ignores PAGE_SIZE Parameter

The LIST translator ignores the PAGE_SIZE parameter when formatting pages. It creates pages with maximum content at a size adequate for both A (Letter) and A4 paper:

 PORTRAIT ORIENTATION: 80 columns, 70 lines

 LANDSCAPE ORIENTATION: 150 columns, 66 lines

It is still possible to use PAGE_SIZE and SHEET_SIZE parameters together to scale the logical page onto a different size sheet.

2.15 Embedded PJI Commands Discarded; Avoid Binary Mode

Drivers that create files for PJI printers, such as those for the DECclaser 5100 and the HP LaserJet IV family, include printer control commands in HP Printer Job Language (PJI). DCPS filters out and discards that data. Therefore, printer options selected by such drivers do not affect the print job.

When using these drivers, do NOT select binary mode. It will insert additional commands into the file that can cause incorrect behavior when printing via DCPS. The exact form of behavior depends on which printer is actually connected to the queue and whether or not the job passes through a DCPS translator.

2.16 Unreliable Communication After Errors on Some Printers

Unexpected errors can occur at the end of a print job when printing to some printers using the AppleTalk interconnect. The printers which can exhibit problems include the LaserWriter Pro 600, LaserWriter Pro 630, the LaserWriter IIfx, and the LaserWriter IIf. Generally, the unexpected error occurs when an explainable error occurred during the print job; for example, a PostScript error which causes the PostScript interpreter to "Flush to the EOJ", or a timeout error while waiting for manual feed. The behavior a user may see includes one of more of the following:

- A second PostScript error or timeout error occurs
- DCPS unexpectedly loses communication with the printer
- The job trailer page (if specified) may not print
- The page count in the accounting file is not correct
- A delay of up to one minute before the job completes

The user's part of the print job prints as expected. The unexpected error occurs during the end of job processing (for example, getting the page count or the job trailer page printed) done by the DECprint Supervisor. Once the offending job is complete, subsequent jobs print as expected. No system operator intervention is needed.

2.17 Deleting Job When Using AppleTalk

When printing using an AppleTalk interconnect, a request to delete a job (DELETE/ENTRY) is accomplished by closing the connection to the printer. The AppleTalk protocol does not provide for interrupting the PostScript interpreter; therefore, the printer will continue to print page descriptions that are contained in its buffer before it stops printing the job. A job trailer page will not be printed.

2.18 Avoid STOP/QUEUE/RESET Usage for PrintServer Printer Which Is Rejecting Connections

If you issue a STOP/QUEUE/RESET command for a queue to a DIGITAL PrintServer printer while there is a job in the “Starting” state and while the printer is rejecting connections (because, for example, the PrintServer is powered off or is booting), the queue will stop. Occasionally the symbiont process will not terminate. Avoid issuing this command until the PrintServer printer becomes available. If the job is in the “Starting” state and also in the PrintServer printer’s job queue, a STOP/QUEUE/RESET will execute correctly.

2.19 No Job Trailer Page on DELETE/ENTRY

If you issue a DELETE/ENTRY command when the printer is printing the job trailer page, it is possible to delete the printing of this page. Also, if you issue a DELETE/ENTRY command for a job printing on a PrintServer printer after all the data for the file is sent, it is possible that the job trailer page will not print.

2.20 Problems with PostScript Files When Printing with /COPIES

When you use the /COPIES qualifier with a PostScript file, DCPS surrounds each file with a PostScript “save” and “restore” to avoid exhausting virtual memory in the printer.

However, there are infrequent cases when the print job aborts with an invalid restore error message. If this occurs, use the /JOB_COUNT qualifier instead of /COPIES.

2.21 Problems Using PAGE_LIMIT with /JOB_COUNT

If you use the PAGE_LIMIT parameter with the /JOB_COUNT qualifier, you are apt to get undesired results. In particular, if your intent is to suppress some initial pages of your job, DCPS will suppress them for the first copy of the job but print all pages of subsequent job copies. If your intent is to suppress some of the trailing pages of your job, DCPS will suppress them for the first copy of the job and omit subsequent job copies.

If you want multiple copies of your job with some pages suppressed, issue the PRINT command the desired number of times rather than using the /JOB_COUNT qualifier.

2.22 Setting I/O Buffers Too Small May Produce OPCOM Errors

If the size of the I/O buffers, set by the SYSGEN parameter MAXBUF, is too small, the print queue will be stopped, and the following message will be displayed to OPCOM:

```
%SYSTEM-E-EXQUOTA, process quota exceeded
```


If this error occurs, increase the value of the SYSGEN parameter MAXBUF.

2.23 Cannot Start Queue for PrintServer Printer

Because of a CPAP protocol bug in some versions of DIGITAL PrintServer Software, DCPS symbionts can be given a badly formatted packet in response to a resource query. The bad packet prevents a symbiont from starting.

The problem is triggered by loading enough resources to require more than one packet describing the resources loaded to be returned. The suggested workaround is to load fewer resources. Empirical testing has found the limit to be 7 fonts.

This problem is fixed in version S5.0-29 and later of the PrintServer Software.

Other Restrictions that Affect DCPS

This section contains information about other problems that are known to impact DECprint Supervisor and remedial patch kits (“ECOs”) that address some of these problems.

You can obtain these remedial patch kits (or an update to them)

- From a Compaq Customer Support Center
- Using FTP, starting with path `ftp.support.compaq.com/public/vms/`
- Using the World Wide Web, starting at `http://www.support.compaq.com/patches/`
- Using a Compaq support tool such as DSNlink

3.1 DCPS Processes Consume Memory and Pagefile

Over time, DCPS print symbiont processes may consume increasing amounts of memory and pagefile space, resulting in system performance problems. This problem is seen only on OpenVMS Alpha V7.1-2 systems.

The following DECthreads patch kit fixes this problem:

- VMS712_PTHREADS-V0300, for OpenVMS Alpha V7.1-2 systems

3.2 Problems Starting Queues with Multistreamed Symbionts

All sites running DECprint Supervisor as a multistreamed process on OpenVMS V7.1 and earlier should install the Queue Manager Remedial Update.

The Queue Manager remedial update kits are:

- ALPQMAN02_071, for OpenVMS Alpha V7.1 systems
- ALPQMAN05_070, for OpenVMS Alpha V7.0 systems
- ALPQMAN03_062, for OpenVMS Alpha V6.2 systems
- ALPQMAN04_061, for OpenVMS Alpha V6.1 systems
- VAXQMAN02_071, for OpenVMS VAX V7.1 systems
- VAXQMAN04_070, for OpenVMS VAX V7.0 systems
- VAXQMAN05_062, for OpenVMS VAX V6.2 systems
- VAXQMAN03_070, for OpenVMS VAX V5.5-2 through V6.1 systems

This update corrects problems that cause the START/QUEUE command to hang under certain circumstances when operating with a multistreamed symbiont. The release notes provided with the kit describe all the problems fixed by this update. After installing this update, you need to reboot your system to enable these changes.

If this update is not installed you may encounter the following problem. If a queue running in a multistreamed process is stopped with STOP/QUEUE/RESET, then quickly started with START/QUEUE, it is possible that the start request will hang. In addition, sometimes the following message will be written to OPCOM:

```
%DCPS-F-STREAMUSE, Request 4 for Stream Id n ignored.  
Not consistent with symbiont state
```

To recover, issue a Ctrl/Y to return to the DCL prompt, then issue a STOP/QUEUE/RESET again, wait a few seconds, and try to start the queue again. To avoid this problem, install the queue manager update.

3.3 Problem Starting Queues for LAT- and Direct-Connected Printers

There is an OpenVMS V7.0 terminal driver problem that may hinder you in using DCPS with LAT- and direct-connected printers. The symptom is that the associated queue cannot be started, with messages like the following being written to OPCOM:

```
%%%%%%%%%% OPCOM 31-OCT-1995 21:53:55.73 %%%%%%%%%%%  
Message from user SYSTEM on FUNYET  
Queue SYS$PRINT: %DCPS-E-UNSUPPORTED, unsupported operation or function  
  
%%%%%%%%%% OPCOM 31-OCT-1995 21:53:55.74 %%%%%%%%%%%  
Message from user QUEUE_MANAGE on FUNYET  
%QMAN-I-QUENOTSTART, queue SYS$PRINT could not be started on node FUNYET  
  
%%%%%%%%%% OPCOM 31-OCT-1995 21:53:55.74 %%%%%%%%%%%  
Message from user QUEUE_MANAGE on FUNYET  
-SYSTEM-F-ABORT, abort
```

The failure may be constant or intermittent. If you subsequently attempt to start the queue, you may succeed.

The following patch kits fix this problem:

- ALPTTDR01_070, for OpenVMS Alpha V7.0 systems
- VAXTTDR01_070, for OpenVMS VAX V7.0 systems

3.4 I/O Errors for Serially-Connected Printers

There is an OpenVMS terminal driver problem that may result in your printer reporting I/O problems when connected to a serial port of your OpenVMS system. You may see the problem with OpenVMS Alpha V6.2 through V7.0, and with OpenVMS VAX V5.5 through V7.0, depending in part on what kind of serial port you are using.

The problem is that the terminal driver sometimes does not respond quickly enough to an XOFF request from the printer to prevent the printer from losing data.

This problem is fixed in OpenVMS Alpha V7.1.

The following patch kits fix this problem:

- ALPOPDR02_070, for OpenVMS Alpha V7.0 systems
- ALPOPDR04_062, for OpenVMS Alpha V6.2 systems

3.5 Symbiont Aborts with Insufficient Dynamic Memory Error

There is a DECthreads problem on OpenVMS VAX V7.0 and V7.1 systems that results in the DCPS symbiont aborting with an INSFMEM error. The DCPS symbiont consumes an increasing amount of memory over time, eventually aborting when it attempts to obtain more than the available dynamic memory. The probability of the symbiont aborting increases with each new print job that it processes.

The following patch kits fix this problem:

- VAXCMAR01_071, for OpenVMS VAX V7.1 systems
- VAXCMAR01_070, for OpenVMS VAX V7.0 systems

3.6 Symbionts Aborts with Access Violation or Bad Parameter Error

The DCPS symbiont can abort with an ACCVIO or BADPARAM error, possibly also indicating the CMA (DECthreads) facility, beginning 19 May 1997. Other software on your system, including DIGITAL TCP/IP Services for OpenVMS and anything layered upon DECthreads, may also fail after this date.

The problem is related to a long-standing OpenVMS restriction of fewer than 10,000 days in a delta-time value. POSIX-related software in particular, using the UNIX reference date of 1 January 1970, can encounter this limit on and after 19 May 1997. Refer to the OpenVMS web pages (<http://www.openvms.compaq.com>) for more information about the “Delta-Time Limit”.

The following patch kits fix this problem:

- ALPLIBR07_070, for OpenVMS Alpha V6.1 to V7.0 systems
- VAXLIBR06_070, for OpenVMS VAX V5.5 to V7.0 systems

Printer-Specific Information

The following sections provide information about using DCPS with specific printers. The *DECprint Supervisor for OpenVMS System Manager's Guide* and *DECprint Supervisor for OpenVMS User's Guide* contain additional printer-specific information.

4.1 HP LaserJet 2100 and 2200

4.1.1 Media Size Not Selectable

The HP LaserJet 2100 and 2200 printers cannot detect the size of paper in their trays. Therefore, the following restrictions apply when using DCPS with this printer:

- It is not possible to select media by paper size.
- If paper of a different size than the default is loaded in a tray, its size will be considered as the default size. For example, if the default printer paper size is letter, a legal-size document will be truncated to letter size when printing on legal size paper.

To avoid printing on the wrong size paper, set the tray with the default paper size “unlocked” and set all other trays “locked”.

4.1.2 Problems Starting Queues

Some models in this series may not allow DCPS jobs to start. To resolve this, either set the printer to PostScript mode or suppress DCPS's PostScript synchronization. See Section 2.2 in these Release Notes or the *DECprint Supervisor for OpenVMS System Manager's Guide* for more information.

4.2 HP LaserJet 9000

4.2.1 Optional Stapler

Output trays STACKER and STAPLER refer to the same physical tray, included with the HP LaserJet 9000's optional finisher.

When printing to the STAPLER tray, the printer will staple output by default and place the staple in the default staple position.

The preferred way to specify stapling is with the DCPS parameter STAPLE, which offers four different staple positions and takes page orientation into account when determining staple position. Therefore, when specifying stapled output with the STAPLE parameter, use OUTPUT_TRAY=STACKER.

4.3 Lexmark Optra S, Optra T and T Series

4.3.1 Problems Starting Queues

Some models in the Lexmark Optra S, Optra T and T series may not allow DCPS jobs to start. To resolve this, either set the printer to PostScript mode or suppress DCPS's PostScript synchronization. See Section 2.2 in these Release Notes or the *DECprint Supervisor for OpenVMS System Manager's Guide* for more information.

Raw TCP/IP Port Numbers

When setting up a DCPS queue using a raw TCP/IP connection, check the documentation for your network interface card (NIC), print server or terminal server to determine the number of its raw TCP/IP port (if it has one). The raw TCP/IP port must support bidirectional communication between the printer and your OpenVMS system.

Table A-1 shows the port numbers for some commonly-used devices.

Table A-1 Raw TCP/IP Port Numbers

20nn	DECserver terminal servers, where "nn" is the physical port number
2501	DIGITAL LN17ps and DIGITAL Laser Printer LN17+ps Emulex NICs
3001	DIGITAL Laser Printer LN15 and LN15+ DIGITAL RapidPrint 500 print server
6869	Compaq Laser Printer LNC02 DIGITAL Laser Printer LN20, LN40 and LNC02
9100	Compaq Laser Printer LN16, LN32 and LNM40 GENICOM Intelliprint mL, LN and microLaser printers GENICOM RapidPrint MPS100 print server HP LaserJet printers IBM InfoPrint printers Lexmark C, Optra, S, Optra T, T and W series printers Tektronix Phaser printers Xerox DocuPrint N printers HP JetDirect, Lexmark and XCD print servers

List of Files Installed on Alpha Systems

DCPS021.RELEASE_NOTES	[SYSHLP]
DCPS\$HELP.HLP	[SYSHLP]
DCPS\$SMBSHR.EXE	[SYSLIB]
DCPS\$SMB.EXE	[SYSEXE]
DCPS\$MSG.EXE	[SYSMSG]
DCPS\$TRNPRC.EXE	[SYSLIB]
DCPS\$BE_SERIAL.EXE	[SYSLIB]
DCPS\$BE_CPAP.EXE	[SYSLIB]
DCPS\$BE_APPLETALK.EXE	[SYSLIB]
TRN\$DDIF_PS.EXE	[SYSLIB]
TRN\$DDIF_IMAGE.EXE	[SYSLIB]
TRN\$ANSI_PS.EXE	[SYSLIB]
TRN\$PROPRINTER_PS.EXE	[SYSLIB]
TRN\$PCL_PS.EXE	[SYSLIB]
TRN\$LIST_PS.EXE	[SYSLIB]
TRN\$REGIS_PS.EXE	[SYSLIB]
TRN\$TEK4014_PS.EXE	[SYSLIB]
DCPS\$DEVCTL.TLB	[SYSLIB]
DCPS\$STARTUP.TEMPLATE	[SYS\$STARTUP]
DCPS\$REQUIRED.COM	[SYS\$STARTUP]
DCPS\$GET_VERSION.COM	[SYS\$STARTUP]
DCPS\$EXECUTION_QUEUE.COM	[SYS\$STARTUP]
DCPS\$GENERIC_QUEUE.COM	[SYS\$STARTUP]
DCPS\$IVP.COM	[SYSTEST]
DCPS\$IVP_ANSI.DAT	[SYSTEST.DCPS]
DCPS\$IVP_POST.DAT	[SYSTEST.DCPS]
DCPS\$IVP_PCL.DAT	[SYSTEST.DCPS]
DCPS\$IVP_PROPRINTER.DAT	[SYSTEST.DCPS]
DCPS\$IVP_LIST.DAT	[SYSTEST.DCPS]
DCPS\$IVP_REGIS.DAT	[SYSTEST.DCPS]
DCPS\$IVP_TEK4014.DAT	[SYSTEST.DCPS]
LPS\$SINGLEHOLES.LUP	DCPS\$LAYUP:
LPS\$DOUBLEHOLES.LUP	DCPS\$LAYUP:
LPS\$HOLES.LUP	DCPS\$LAYUP:
LPS\$NUP.LUP	DCPS\$LAYUP:
COLOR-PRINTER-FULL-PAGE.LUP	DCPS\$LAYUP:
COLORWRITER-2000-FULL-PAGE.LUP	DCPS\$LAYUP:
PROPRINTER-FULL-PAGE.LUP	DCPS\$LAYUP:
FULL-A4-LANDSCAPE.LUP	DCPS\$LAYUP:
CPS_TO_DCPS_STARTUP.COM	[SYS\$STARTUP]
LPS_ANSI_PROLOGUE.PS	[SYSHLP.EXAMPLES.DCPS]
UPDATE-ANSI-PROLOGUE.COM	[SYSHLP.EXAMPLES.DCPS]
FONT_DOWNLOADER.COM	[SYSHLP.EXAMPLES.DCPS]
LPS\$SET_PRINTER_NAME.PS	[SYSHLP.EXAMPLES.DCPS]
LPS\$SET_TIMEOUT.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_CONFIG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_DEVPARAM.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_STARTPG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_NOSTRTPG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_PRNTCNFG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_PSCRIPT.PS	[SYSHLP.EXAMPLES.DCPS]
FAX_3500_PRINTME.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX.PS.PS	[SYSHLP.EXAMPLES.DCPS]

DL3500_SEND_FAX_PS_SENDPS.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX_TEXT.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX_TEXT_SENDPS.PS	[SYSHLP.EXAMPLES.DCPS]
DCPS\$FILE_EXTENSION_DATA_TYPE.DAT_DEFAULT	[SYSLIB]
UNSOLICITED-PJL-FIX.COM	[SYSHLP.EXAMPLES.DCPS]
IGNORE-A-SIZE.PS	[SYSHLP.EXAMPLES.DCPS]
DCPS\$COMMON-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$CONFIG-PRINTER-PORT.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS100-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS200-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS500-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$GET-DS100-PORT-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SET-DS-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SET-DS100-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SAVE-DS500-PORT.COM	[SYSHLP.EXAMPLES.DCPS]
LPS\$STATUSDICT.PS	[SYSHLP.EXAMPLES.DCPS]
CONFIDENTIAL.PS	[SYSHLP.EXAMPLES.DCPS]
INSTALL-PS-SUPPLEMENT.COM	[SYSHLP.EXAMPLES.DCPS]
PS_SUPPLEMENT.PS	[SYSHLP.EXAMPLES.DCPS]
NETPRINT.ZIP	[SYSHLP.EXAMPLES.DCPS]
NETPRINT.TXT	[SYSHLP.EXAMPLES.DCPS]

C

List of Files Installed on VAX Systems

DCPS021.RELEASE_NOTES	[SYSHLP]
DCPS\$HELP.HLP	[SYSHLP]
DCPS\$SMBSHR.EXE	[SYSLIB]
DCPS\$SMB.EXE	[SYSEXE]
DCPS\$MSG.EXE	[SYSMSG]
DCPS\$TRNPRC.EXE	[SYSLIB]
DCPS\$BE_SERIAL.EXE	[SYSLIB]
DCPS\$BE_CPAP.EXE	[SYSLIB]
DCPS\$BE_APPLETALK.EXE	[SYSLIB]
TRN\$DDIF_PS.EXE	[SYSLIB]
TRN\$DDIF_IMAGE.EXE	[SYSLIB]
TRN\$ANSI_PS.EXE	[SYSLIB]
TRN\$PROPRINTER_PS.EXE	[SYSLIB]
TRN\$PCL_PS.EXE	[SYSLIB]
TRN\$LIST_PS.EXE	[SYSLIB]
TRN\$REGIS_PS.EXE	[SYSLIB]
TRN\$TEK4014_PS.EXE	[SYSLIB]
DCPS\$DEVCTL.TLB	[SYSLIB]
DCPS\$STARTUP.TEMPLATE	[SYS\$STARTUP]
DCPS\$REQUIRED.COM	[SYS\$STARTUP]
DCPS\$GET_VERSION.COM	[SYS\$STARTUP]
DCPS\$EXECUTION_QUEUE.COM	[SYS\$STARTUP]
DCPS\$GENERIC_QUEUE.COM	[SYS\$STARTUP]
DCPS\$IVP.COM	[SYSTEST]
DCPS\$IVP_ANSI.DAT	[SYSTEST.DCPS]
DCPS\$IVP_POST.DAT	[SYSTEST.DCPS]
DCPS\$IVP_PCL.DAT	[SYSTEST.DCPS]
DCPS\$IVP_PROPRINTER.DAT	[SYSTEST.DCPS]
DCPS\$IVP_LIST.DAT	[SYSTEST.DCPS]
DCPS\$IVP_REGIS.DAT	[SYSTEST.DCPS]
DCPS\$IVP_TEK4014.DAT	[SYSTEST.DCPS]
LPS\$SINGLEHOLES.LUP	DCPS\$LAYUP:
LPS\$DOUBLEHOLES.LUP	DCPS\$LAYUP:
LPS\$HOLES.LUP	DCPS\$LAYUP:
LPS\$NUP.LUP	DCPS\$LAYUP:
COLOR-PRINTER-FULL-PAGE.LUP	DCPS\$LAYUP:
COLORWRITER-2000-FULL-PAGE.LUP	DCPS\$LAYUP:
PROPRINTER-FULL-PAGE.LUP	DCPS\$LAYUP:
FULL-A4-LANDSCAPE.LUP	DCPS\$LAYUP:
CPS_TO_DCPS_STARTUP.COM	[SYS\$STARTUP]
LPS_ANSI_PROLOGUE.PS	[SYSHLP.EXAMPLES.DCPS]
UPDATE-ANSI-PROLOGUE.COM	[SYSHLP.EXAMPLES.DCPS]
FONT_DOWNLOADER.COM	[SYSHLP.EXAMPLES.DCPS]
LPS\$SET_PRINTER_NAME.PS	[SYSHLP.EXAMPLES.DCPS]
LPS\$SET_TIMEOUT.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_CONFIG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_DEVPARAM.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_STARTPG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_NOSTRTPG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_PRNTCNFG.PS	[SYSHLP.EXAMPLES.DCPS]
DCW1000_PSCRIPT.PS	[SYSHLP.EXAMPLES.DCPS]
FAX_3500_PRINTME.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX.PS.PS	[SYSHLP.EXAMPLES.DCPS]

DL3500_SEND_FAX_PS_SENDDPS.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX_TEXT.PS	[SYSHLP.EXAMPLES.DCPS]
DL3500_SEND_FAX_TEXT_SENDDPS.PS	[SYSHLP.EXAMPLES.DCPS]
DCPS\$FILE_EXTENSION_DATA_TYPE.DAT_DEFAULT	[SYSLIB]
DCPS\$DELETE-LPS-CLIENT.COM	[SYSHLP.EXAMPLES.DCPS]
UNSOLICITED-PJL-FIX.COM	[SYSHLP.EXAMPLES.DCPS]
IGNORE-A-SIZE.PS	[SYSHLP.EXAMPLES.DCPS]
DCPS\$COMMON-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$CONFIG-PRINTER-PORT.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS100-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS200-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$DS500-PORT-SETTINGS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$GET-DS100-PORT-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SET-DS-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SET-DS100-GROUPS.COM	[SYSHLP.EXAMPLES.DCPS]
DCPS\$SAVE-DS500-PORT.COM	[SYSHLP.EXAMPLES.DCPS]
LPS\$STATUSDICT.PS	[SYSHLP.EXAMPLES.DCPS]
CONFIDENTIAL.PS	[SYSHLP.EXAMPLES.DCPS]
INSTALL-PS-SUPPLEMENT.COM	[SYSHLP.EXAMPLES.DCPS]
PS_SUPPLEMENT.PS	[SYSHLP.EXAMPLES.DCPS]
NETPRINT.ZIP	[SYSHLP.EXAMPLES.DCPS]
NETPRINT.TXT	[SYSHLP.EXAMPLES.DCPS]