HP DECprint Supervisor (DCPS) for OpenVMS

Release Notes

May 2009

This manual contains information about the current release of DCPS.

Revision/Update Information:	These release notes supersede all other documentation.
Software Version:	HP DECprint Supervisor (DCPS) for OpenVMS, Version 2.7
Operating System:	OpenVMS I64 Version 8.2-1, 8.3 or 8.3-1H1 OpenVMS Alpha Version 6.2, 7.3-2, 8.2 or 8.3 OpenVMS VAX Version 5.5-2, 6.2 or 7.3

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Preface

Intended Audience

These release notes describe new features, bug fixes, usage hints, restrictions and other useful information for this release of DECprint Supervisor. System managers and users should review this document for new information about installing and using this release of DCPS.

Document Structure

These release notes contain the following chapters and appendices:

- Chapter 1 describes changes included in DCPS V2.7.
- Chapter 2 provides information about using DCPS with specific printers.
- Chapter 3 identifies current restrictions that exist with DCPS V2.7.
- Chapter 4 contains information about OpenVMS operating system problems that are known to impact DCPS.
- Appendix A lists commonly-used port numbers used when setting up IP printers.
- Appendix B lists product name information required when setting up LPD queues.

Related Documents

The primary source of information about DCPS is the following set of software manuals:

Table 1 DECprint Supervisor Documentation

Software Installation Guide	Describes how to install DCPS.
System Manager's Guide	Describes how system managers, data center operators and application programmers can create and manage DCPS print queues and solve printing problems.
User's Guide	Describes how to use DCPS to print to PostScript® printers.
Software Product Description (SPD 44.15.xx)	Contains the full list of printers supported by DCPS and additional information about the features and requirements of DCPS V2.7.

For additional information about HP OpenVMS products and services, see the HP OpenVMS Systems website:

`http://www.hp.com/go/openvms`

Reader's Comments

HP welcomes your comments on this manual. Please send comments to:

openvmsdoc@hp.com

How to Order Additional Documentation

For information about how to order additional documentation, see the HP OpenVMS Systems Documentation Ordering page:

http://www.hp.com/go/openvms/doc/order

Conventions

The following conventions may be used in this manual:

Ctrl/*x*	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.
PF1 *x*	A sequence such as PF1 *x* indicates that you must first press and release the key labeled PF1 and then press and release another key or a pointing device button.
Return	In examples, a key name enclosed in a box indicates that you press a key on the keyboard. (In text, a key name is not enclosed in a box.) In the HTML version of this document, this convention appears as brackets, rather than a box.
. . .	A horizontal ellipsis in examples indicates one of the following possibilities: • Additional optional arguments in a statement have been omitted. • The preceding item or items can be repeated one or more times. • Additional parameters, values, or other information can be entered.
. . .	A vertical ellipsis indicates the omission of items from a code example or command format; the items are omitted because they are not important to the topic being discussed.
( )	In command format descriptions, parentheses indicate that you must enclose choices in parentheses if you specify more than one.
[ ]	In command format descriptions, brackets indicate optional choices. You can choose one or more items or no items. Do not type the brackets on the command line. However, you must include the brackets in the syntax for OpenVMS directory specifications and for a substring specification in an assignment statement.
|	In command format descriptions, vertical bars separate choices within brackets or braces. Within brackets, the choices are optional; within braces, at least one choice is required. Do not type the vertical bars on the command line.
{ }	In command format descriptions, braces indicate required choices; you must choose at least one of the items listed. Do not type the braces on the command line.

bold type	Bold type represents the introduction of a new term. It also represents the name of an argument, an attribute, or a reason.
italic type	Italic type indicates important information, complete titles of manuals, or variables. Variables include information that varies in system output (Internal error *number*), in command lines (/PRODUCER=*name*), and in command parameters in text (where *dd* represents the predefined code for the device type).
`Example`	This typeface indicates code examples, command examples, and interactive screen displays. In text, this type also identifies URLs, UNIX commands and pathnames, PC-based commands and folders and certain elements of the C programming language.
UPPERCASE TYPE	Uppercase type indicates a command, the name of a routine, the name of a file, or the abbreviation for a system privilege.
-	A hyphen at the end of a command format description, command line, or code line indicates that the command or statement continues on the following line.
numbers	All numbers in text are assumed to be decimal unless otherwise noted. Nondecimal radixes—binary, octal, or hexadecimal—are explicitly indicated.

1

DCPS Version 2.7 Information

This section describes changes included in DCPS V2.7. You can find more information for several of these changes elsewhere in these release notes.

1.1 DCPS Version 2.7 Enhancements

1.1.1 New Printers Supported

DCPS V2.7 adds support for the following printers:

HP

CM8050 Color MFP[1]
CM8050 Color MFP with Edgeline[1]
CM8060 Color MFP[1]
CM8060 Color MFP with Edgeline[1]
Color LaserJet CM1312 MFP
Color LaserJet CM2320 MFP
Color LaserJet CM3530 MFP
Color LaserJet CM6030 MFP
Color LaserJet CM6040 MFP
Color LaserJet CP1513
Color LaserJet CP1514
Color LaserJet CP1515
Color LaserJet CP1516
Color LaserJet CP1517
Color LaserJet CP1518
Color LaserJet CP1519
Color LaserJet CP2024
Color LaserJet CP2025
Color LaserJet CP2026
Color LaserJet CP2027
Color LaserJet CP3525
Color LaserJet CP6015
LaserJet M1522 MFP
LaserJet M2727 MFP
LaserJet M9040 MFP
LaserJet M9050 MFP
LaserJet P2055
LaserJet P3011
LaserJet P3015
LaserJet P4014
LaserJet P4015
LaserJet P4515

[1] Added in DCPS V2.6 ECO 3

Ricoh

Aficio CL3500N
Aficio MP 161
Aficio MP 2510
Aficio MP 3500
Aficio MP 4500
Aficio MP 5500
Aficio SP 8100DN
Aficio SP C811DN

Xerox

Phaser 4510

1.1.2 USB Printing Supported

DCPS now supports printing to USB printers on systems running OpenVMS V8.3 or later.

To create a queue to a USB printer, use the protocol ''USB'' in the parameter P2 in DCPS$STARTUP.COM:

```
"USB/usb-device"
```

USB device names are of the type LPA*n*:. A USB printer will be recognized by OpenVMS at system boot time or when it is plugged in to the system. The printer should keep the same device name regardless of system reboots or the number of times the printer is powered off or disconnected from the system.

1.1.2.1 USB Software Requirements

You must install one of the following patch kits before installing DCPS V2.7 or later:

Table 1–1 USB Patch Kits

OpenVMS Version	Patch Kit
OpenVMS I64 V8.3	VMS83I_USB-V0200
OpenVMS I64 V8.3-1H1	VMS831H1I_USB-V0100
OpenVMS Alpha V8.3	VMS83A_USB-V0100

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

- From an HP Customer Support Center
- From the HP IT Resource Center (ITRC) at the following URL:

  `http://www.itrc.hp.com`

  These patch kits are expected to be included in a future version of OpenVMS.

1.1.2.2 USB Troubleshooting

USB devices are different than serial devices because of their ''plug-and-play'' behavior. Also, most USB printers do not return all the information DCPS expects concerning PostScript errors. Therefore, DCPS relies on the ''offline'' and ''tray empty'' information returned by the printer to send status information to the user. The following error messages are returned to the user's terminal and via OPCOM:

DCPS-I-TRAYEMP, Print Engine paper input tray is empty

Explanation: A paper tray is empty.

User Action: Put more paper in the tray.

SYSTEM-I-DEVOFFLINE, device is not in configuration or not available

Explanation: The printer is powered off or not connected.

User Action: Check the printer and cable.

SYSTEM-F-NOSUCHDEV, no such device available

Explanation: The printer device (LPA*n*:) does not exist.

User Action: Configure the device with UCM.

While troubleshooting a problem with a USB printer, and the printer is not responsive, it might be necessary to disconnect the USB cable for a few seconds, or power-cycle the printer, to return it to a normal state.

It might also be necessary to run the USB Configuration Manager (UCM) to view information about USB devices that have been connected to your system or to diagnose USB printer problems. The UCM utility is described in the *HP OpenVMS System Management Utilities Reference Manual* and does the following:

- Records events such as plugging or unplugging devices and errors that occur on a USB bus.
- Maps physical devices to persistent device names based on either serial number or bus location.
- Automatically configures and loads OpenVMS device drivers for known device types.
- Managers additions, deletions and modifications to devices configured on the system.

For example, you can perform the following command to display information about changes in the USB devices on your system during the time period in which you are interested:

```
$ UCM SHOW EVENTS /TYPE=ALL /SINCE=time
```

1.1.3 Printer Synchronization Removed

V2.7

Before DCPS V2.7, DCPS would send a query to the printer to see if the printer was busy with another job. This PostScript status query (Ctrl/*T*) would be sent at the very beginning of every job unless the queue was an LPD queue. DCPS would wait for the printer to respond with a ‘‘ready’’ status before continuing with the job.

Many printers do not respond to this query and, when printing to such a printer, the job would stall and produce no output. This problem was avoided by defining the logical name DCPS$*queuename*_NO_SYNC, which would cause DCPS to skip the query.

Since this query is usually unnecessary, the default DCPS behavior has been changed to skip the query. Therefore, the logical name DCPS$*queuename*_NO_SYNC is no longer used and is ignored by DCPS.

It is possible that some printers may require the old behavior in which DCPS sends the query and waits for the response. For such printers, the logical name DCPS$*queuename*_SYNC can be defined so that the query is sent.

1.2 DCPS Version 2.7 Fixes

1.2.1 Stapled Jobs Fail

1.2.1.1 LPD Queues

V2.6 ECO 1

Print jobs would fail if stapling was requested for a job being printed on a DCPS LPD queue. If requested, a separator page would print, but user files would not. No error would be reported.

1.2.1.2 Xerox WorkCenter Pro Printers

V2.6 ECO 3

Print jobs would fail if stapling was requested for a job being printed on a Xerox WorkCentre Pro printer. If requested, a separator page would print, but user files would not. No error would be reported.

Jobs are now stapled, but because of the way these printers process jobs, requested job separator pages will be stapled to the user job.

1.2.1.3 HP Color LaserJet 9500 MFP Printer

V2.6 ECO 3

Print jobs could fail if stapling was requested for a job being printed on an HP Color LaserJet 9500 MFP printer. The following error message could be received even though the requested output bin supported stapled output:

```
%DCPS-E-STPOUTTRAY, Selected output tray does not support stapling
-DCPS-I-JOB_ID, for job STAPLE (queue HP9500MFP, entry 725) on HP9500MFP
```

1.2.2 HP LaserJet P2015 Duplex Jobs Fail

V2.6 ECO 1

Attempting to print a duplex job on the HP LaserJet P2015 printer would result in the error:

```
%DCPS-E-DPLXNOSUP, printer does not support duplex printing
```

1.2.3 Some Xerox Phaser 4500 Jobs Fail

V2.6 ECO 1

Some print jobs to the Xerox Phaser 4500 would fail, printing a separator page, if requested, but no user output. This problem was reported when using PlanetPress forms but could also occur in other environments.

1.2.4 ANSI LPD Output Formatted for Wrong Paper Size

V2.6 ECO 1

Output was formatted for the wrong size paper if the following were true:

- A text or ANSI file was being printed with the DCPS ANSI translator
- The queue being used was a DCPS LPD queue
- Logical names DCPS$SHEET_SIZE or DCPS$*queuename*_SHEET_SIZE were defined to select sheet size

The correct size paper would be used but the output would be formatted incorrectly. For example, if DCPS$SHEET_SIZE was set to ''A4'', the job would print on A4 size paper but would be formatted for Letter size paper.

V2.7

Output was also formatted for the wrong size paper when the above items were true and when NUMBER_UP was specified.

1.2.5 Jobs to PostScript Level 1 Printers Fail

V2.6 ECO 3

Starting with DCPS V2.6, jobs printed to PostScript Level 1 printers failed with the following error message:

```
%DCPS-W-SYNERR, syntaxerror: Input ended in string or procedure body -
 offending command is --nostringval--
```

This problem affected the following printers:

- Digital

  Colormate PS (LF01R)
  DEClaser 1150 (LN07R)
  DEClaser 2150 (LN05R)
  DEClaser 2250 (LN06R)
  DEClaser 3250 (LN08R)
  PrintServer 17 (LPS17)
  PrintServer 20 (LPS20)
  turbo PrintServer 20
  PrintServer 32 (LPS32)
  PrintServer 40 (LPS40)
  PrintServer 40 Plus
  ScriptPrinter (LN03R)

- HP

  LaserJet III (with PostScript Level 1 cartridge)
  LaserJet IIID (with PostScript Level 1 cartridge)
  LaserJet IIISi (with PostScript Level 1 option)
  PaintJet XL300

- Apple

  LaserWriter II NT
  LaserWriter II NTX
  LaserWriter Plus

1.2.6 HP LaserJet 9055 and 9065 MFP Output Tray Selection Fails

V2.6 ECO 3

Print jobs would fail if the output tray was specified when printing to the HP LaserJet 9055 MFP and 9065 MFP printers. If the printer was configured to print PostScript errors, a message similar to the following would be printed:

```
ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

/bin_1
-mark-
```

1.2.7 Installing from CD Fails

V2.7

When installing DCPS when booted from a read-only device, such as from the OpenVMS installation CD or DVD, an error would be returned and the installation could fail.

Before DCPS V2.6 ECO 3, the installation would fail:

```
Examining system environment ...

%DCL-W-UNDSYM, undefined symbol - check validity and spelling
 \NUMBER_OF_NODES\
```

With DCPS V2.6 ECO 3:

```
Examining system environment ...
%SORT-F-OPENOUT, error opening * as output
-RMS-E-WLK, device currently write locked
```

1.2.8 Information on LPD Banner Pages Missing

V2.7

Some printers can be configured to print LPD banner pages. The printer's LPD banner page is not printed by DCPS and is not the same as the job or file separator pages printed by DCPS. The printer uses data from the LPD job to include information about the job on the page, such as system name, user name and job name. DCPS did not send this information to the printer, so the system and user names displayed as "unknown" and the job name displayed as an internal representation of the job name.

DCPS now sends this information to the printer so the correct information is used on the printer's LPD banner page, if the printer is configured to print its own LPD banner page.

2
Printer-Specific Information

This chapter provides information about using DCPS with specific printers. The *DCPS System Manager's Guide* and *DCPS User's Guide* contain additional printer-specific information.

2.1 Tray Restrictions with LPD Printing

When using LPD to print, you cannot choose a tray by name (with the INPUT_TRAY parameter) if the paper size in the tray is different than what is expected by DCPS.

Because LPD is uni-directional, information cannot be sent from the printer back to DCPS. This includes information about the size of paper in the printer's trays.

You tell DCPS what paper size should be used for LPD queues by defining the logical name `DCPS$[`*`queuename`*`_]SHEET_SIZE`, as described in the *DCPS System Manager's Guide*. (If the logical name is not defined, DCPS uses a size of Letter.) However, if a tray contains paper of a different size than the defined size, the tray cannot be selected by name. In this case, select paper by size and media type rather than by tray name.

This restriction may be lifted in a future version of DCPS.

2.2 HP Printers

On HP printers, tray 1 is usually a multipurpose tray in which paper of various sizes and types can be used. On many such printers, the page size and media type for tray 1 can be set to ''ANY''. This is the printer's factory default.

HP recommends that, for DCPS jobs, the page size and media type be set to the size actually loaded, or commonly used, in the tray. When tray 1 is set to page size ''ANY'', DCPS jobs may print from the wrong tray, depending on the print options selected.

You can change the printer by using printer's front panel, the printer's web page or with the Web JetAdmin printer management utility.

2.3 Ricoh Printers

Use of Raw TCP is not supported for most Ricoh printers. If a Raw TCP connection does not work, you must use LPD to print with the IP protocol. For more information about setting up LPD queues, see Appendix B and the *DCPS System Manager's Guide*.

In addition, use of optional finishers and mailboxes is not supported for these printers.

2.4 Xerox Printers

You must use spooled LPD to print with the IP protocol to the following Xerox printers:

Xerox Phaser (all models)
Xerox WorkCentre Pro (all models)

Use of Raw TCP or non-spooled LPD is not supported for these printers. For more information about setting up spooled LPD queues, see Appendix B and the *DCPS System Manager's Guide*.

2.5 Printer Firmware

Your printer's firmware version is displayed as ''Firmware Datecode'' on the printed configuration page, the printer's web page and the Web JetAdmin printer management utility.

Printer firmware and instructions for downloading it to your printer can be obtained by selecting *Software and Driver Downloads* from the HP web page at the following URL:

`http://www.hp.com`

HP recommends keeping printer firmware up-to-date as newer versions often resolve printing problems seen in earlier versions.

2.5.1 Printers Fail with Service Error

When printing certain PostScript files, some HP printers fail with a 49.4C02 service error. This problem has been fixed in printer firmware. Table 2–1 shows which printers have this problem and in which firmware version the problem is fixed. Your printer must be running this version of firmware at a minimum to avoid this problem.

Table 2–1 Firmware with Service Error Fix

Printer	Firmware Version
HP Color LaserJet 4650	20050524 07.003.3
HP Color LaserJet 5550	20050524 07.007.3
HP LaserJet 4250	20050831 08.009.3
HP LaserJet 4350	20050831 08.009.3
HP LaserJet 9050	20050617 08.102.2
HP LaserJet 9055 MFP	20050601 07.004.0
HP LaserJet 9065 MFP	20050601 07.004.0

2.5.2 Problems Starting Queues

For some HP printers, it is recommended that the printer's personality setting be set to PS (PostScript). Setting the printer's personality to PS (PostScript) alone will not solve the problem for these printers. This problem is resolved in the following versions of printer firmware:

Table 2–2 Minimum Recommended Firmware

Printer	Firmware
HP Color LaserJet 5500	20030605 04.016.2
HP LaserJet 2300	20030530 04.047.2
HP LaserJet 4200	20030530 04.016.1
HP LaserJet 4300	20030530 04.016.1

This restriction is still in effect for the HP Color LaserJet 2500 printer.

3
DCPS Restrictions

This chapter identifies the current restrictions that exist with DCPS. See the *DCPS System Manager's Guide* and *DCPS User's Guide* for printer-specific restrictions.

3.1 AppleTalk on OpenVMS V8.2 and Later Systems

One of the network protocols used by DCPS is AppleTalk, provided on OpenVMS Alpha and VAX systems by the layered product *PATHWORKS for OpenVMS (Macintosh)*. Although this product is retired and no longer supported, DCPS has continued to work with AppleTalk queues.

However, changes made to OpenVMS in V8.2 prevent the AppleTalk protocol from being started. Therefore, DCPS does not work with AppleTalk queues starting with OpenVMS V8.2.

Starting a DCPS queue that executes on an OpenVMS V8.2 and later system will fail with the following operator message:

```
%DCPS-F-CANNOTSTART, cannot start queue queue_name
%DCPS-F-TRANSPORTNOTSUP, transport not supported - AppleTalk
%SYSTEM-F-IVPARAM, invalid parameter specified
```

To avoid this problem in an OpenVMS cluster, change the node on which the queue executes to one running an OpenVMS version earlier than V8.2, if possible.

3.2 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 DCPS 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 2 and the *DCPS System Manager's Guide* for additional information.

3.3 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.

3.4 Connection Terminations for Raw TCP/IP Queue

You may get CONTERMINATED errors for long print jobs when using Raw TCP/IP connections, especially with printers that have large memory or disks for spooling data, such as the HP Color LaserJet 9500 and LaserJet 9055 MFP and 9065 MFP printers.

For jobs that consist of a single file or that only use the native PostScript capability of the printer, these errors are most likely to occur at the end of the job, with job trailer pages (if specified) 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 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 and how this is possible. (Recent HP printers call this setting the TCP/IP ‘‘idle timeout’’.) 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 small PostScript program can take a long time to print. Therefore, it is difficult to predict how large a timeout is adequate.

3.5 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 differentiate between the printer being busy, offline or otherwise unavailable.

3.6 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.

3.7 Job Trailer Page Jogs with PostScript Level 2 Printers

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

3.8 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, setlcittray 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
  /setlcittray   { statusdict begin 1 setpapertray end } def
end
```

PostScript tray numbers are documented in the *DCPS User’s Guide*.

3.9 Some Printers Do Not Send Status Messages to the Host

Because of their internal architecture, some PostScript printers 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 and cover open) 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)

3.10 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.

3.11 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.

3.12 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 user 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.

3.13 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.

3.14 Embedded PJL Commands Discarded; Avoid Binary Mode

Drivers that create files for PJL printers, such as those for the DEClaser 5100 and the HP LaserJet IV family, include printer control commands in HP Printer Job Language (PJL). 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.

3.15 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.

3.16 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.

3.17 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.

3.18 Problems Using PAGE_LIMIT with /JOB_COUNT

If you use the PAGE_LIMIT parameter with the /JOB_COUNT qualifier, you may 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.

3.19 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.

4
Other Restrictions that Affect DCPS

This chapter contains information about other problems that are known to affect DCPS and patch kits (ECOs) that address some of these problems. Patch kits for supported versions of OpenVMS are listed, although there may be kits available for other versions.

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

- From an HP Customer Support Center
- From the HP IT Resource Center (ITRC) at the following URL:

  `http://www.itrc.hp.com`

4.1 DCPS Processes Consume CPU after Time Change

In certain situations, DCPS symbiont processes can consume excessive CPU time. For example, when the time is moved forward at the Standard Time/Daylight Savings Time adjustment, multithreaded processes such as DCPS went into a tight CPU loop. Stopping and restarting the processes resolved the problem.

This problem can happen again at the next Standard Time/Daylight Savings Time adjustment unless the following patch is applied:

- VMS732_TDF-V0200, for OpenVMS Alpha V7.3-2 systems
- VMS73_TDF-V0500, for OpenVMS Alpha V7.3-1 systems
- VMS73_TDF-V0100, for OpenVMS Alpha V7.3 systems

If DTSS is used to synchronize time, the following DECnet patch should also be applied:

- AXP_DNVOSIECO01-V732, for OpenVMS Alpha V7.3-2 systems
- AXP_DNVOSIECO03-V731, for OpenVMS Alpha V7.3-1 systems
- AXP_DNVOSIECO04-V73, for OpenVMS Alpha V7.3 systems
- VAX_DNVOSIECO04-V73, for OpenVMS VAX V7.3 systems

4.2 Starting Queue Causes Invalid Device Name Error

When initializing and starting an autostart DCPS queue that uses the Raw TCP protocol, the queue manager can fail with an ‘‘invalid device name’’ error.

```
%%%%%%%%%%  OPCOM  26-SEP-2002 09:33:42.58  %%%%%%%%%%
Message from user SYSTEM on LATEST
%QMAN-I-QUENOTSTART, queue TEST4 could not be started on node LATEST

%%%%%%%%%%  OPCOM  26-SEP-2002 09:33:42.58  %%%%%%%%%%
Message from user SYSTEM on LATEST
-QMAN-I-QUEAUTOOFF, queue TEST4 is now autostart inactive
```

```
%%%%%%%%%%  OPCOM  26-SEP-2002 09:33:42.58  %%%%%%%%%%
Message from user SYSTEM on LATEST
-SYSTEM-F-IVDEVNAM, invalid device name
```

The following patch kit fixes this problem:

- VMS731_QMAN-V0100, for OpenVMS Alpha V7.3-1 systems

4.3 Problems Starting Queues with Multistreamed Symbionts

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

The Queue Manager remedial update kits are:

- ALPQMAN03_062, for OpenVMS Alpha V6.2 systems
- VAXQMAN05_062, for OpenVMS VAX V6.2 systems
- VAXQMAN03_070, for OpenVMS VAX V5.5-2 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, a queue running in a multistreamed process that is stopped with STOP /QUEUE /RESET and quickly started with START /QUEUE will hang. Also, the following message will sometimes 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.

4.4 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 kit fixes this problem:

- ALPOPDR04_062, for OpenVMS Alpha V6.2 systems

4.5 Symbiont 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. Other software on your system, including HP TCP/IP Services for OpenVMS and anything layered upon DECthreads, may also fail.

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.

The following patch kits fix this problem:

- ALPLIBR07_070, for OpenVMS Alpha V6.2 systems
- VAXLIBR06_070, for OpenVMS VAX V5.5-2 and V6.2 systems

A

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 Color LaserJet printers
	HP LaserJet printers
	IBM InfoPrint printers
	Lexmark C, Optra, S, Optra T, T and W series printers
	Ricoh Aficio printers
	Tektronix Phaser printers
	Xerox DocuPrint N printers
	Xerox Phaser printers
	Xerox WorkCentre Pro printers
	HP JetDirect, Lexmark and XCD print servers
9101	HP 9085 MFP

B
Product Names

If you have a DCPS-supported printer that you want to use with a DCPS LPD queue, you must define the DCPS$*queue-name*_PRODUCT_NAME logical name. The value of the logical name is the PostScript product name of the printer as shown in Table B–1. You must specify the product name exactly, including spacing. However, capitalization and trailing spaces are ignored.

For example, to set up a queue called MYMFP to an HP LaserJet 9000 MFP printer, use the following command:

```
$ DEFINE /EXECUTIVE_MODE /SYSTEM DCPS$MYMFP_PRODUCT_NAME -
_$ "HP LaserJet 9000 MFP"
```

Please note the following guidelines:

- If you define the logical name as ‘‘HPGENERIC’’, the printer will be treated as an ‘‘HP Generic’’ printer.
- If you define the logical name as a value not included in the table, the printer will be treated as an ‘‘unrecognized’’ printer.
- Defining this logical name for non-LPD queues is sometimes useful in getting a printer not supported by DCPS to work, but is unsupported.

Table B–1 Supported Printer Product Names

Colormate PS
Colormate PS40
Colormate PS80
Colorwriter 1000
Colorwriter LSR 2000
Compaq Laser Printer LN16
Compaq Laser Printer LN32
Compaq Laser Printer LNC02
Compaq Laser Printer LNM40
DECColorwriter 1000
DEClaser 1150
DEClaser 1152
DEClaser 2150
DEClaser 2250
DEClaser 3250
DEClaser 3500

Table B–1 (Cont.) Supported Printer Product Names

DEClaser 5100
DIGITAL Laser Printer LN15
DIGITAL Laser Printer LN20
DIGITAL Laser Printer LN40
DIGITAL Laser Printer LNC02
GENICOM Intelliprint cL160
GENICOM Intelliprint mL260
GENICOM Intelliprint mL402
GENICOM Intelliprint mL450
GENICOM LN21
GENICOM LN28
GENICOM LN45
GENICOM LNM40
GENICOM microLaser 170
GENICOM microLaser 210
GENICOM microLaser 280
GENICOM microLaser 320
GENICOM microLaser 401
HP 9085mfp
HP CM8050 Color MFP
HP CM8050 Color MFP with Edgeline
HP CM8060 Color MFP
HP CM8060 Color MFP with Edgeline
HP Color LaserJet 2500
HP Color LaserJet 2550 Series
HP Color LaserJet 2605dn
HP Color LaserJet 2605dtn
HP Color LaserJet 3000
HP Color LaserJet 3700
HP Color LaserJet 3800
HP Color LaserJet 4500
HP Color LaserJet 4550
HP Color LaserJet 4600
HP Color LaserJet 4610
HP Color LaserJet 4650
HP Color LaserJet 4700
HP Color LaserJet 4730mfp
HP Color LaserJet 5500
HP Color LaserJet 5550

Table B–1 (Cont.) Supported Printer Product Names

HP Color LaserJet 8500
HP Color LaserJet 8550
HP Color LaserJet 9500
HP Color LaserJet 9500 MFP
HP Color LaserJet CM1015
HP Color LaserJet CM1017
HP Color LaserJet CM1312 MFP Series
HP Color LaserJet CM2320 MFP Series
HP Color LaserJet CM3530 MFP
HP Color LaserJet CM4730 MFP
HP Color LaserJet CM6030 MFP
HP Color LaserJet CM6040 MFP
HP Color LaserJet CP1510 Series
HP Color LaserJet CP2020 Series
HP Color LaserJet CP3505
HP Color LaserJet CP3525
HP Color LaserJet CP4005
HP Color LaserJet CP6015
HP LaserJet 1300 Series
HP LaserJet 1320 Series
HP LaserJet 2100 Series
HP LaserJet 2200
HP LaserJet 2300 series
HP LaserJet 2410
HP LaserJet 2420
HP LaserJet 2430
HP LaserJet 3052
HP LaserJet 3055
HP LaserJet 3390
HP LaserJet 3392
HP LaserJet 4 Plus
HP LaserJet 4000 Series
HP LaserJet 4050 Series
HP LaserJet 4100 MFP
HP LaserJet 4100 Series
HP LaserJet 4200
HP LaserJet 4200L
HP LaserJet 4240
HP LaserJet 4240N

Table B–1 (Cont.) Supported Printer Product Names

HP LaserJet 4250
HP LaserJet 4250L
HP LaserJet 4300
HP LaserJet 4345 MFP
HP LaserJet 4350
HP LaserJet 4ML
HP LaserJet 4MP
HP LaserJet 4PJ
HP LaserJet 4Si
HP LaserJet 4V
HP LaserJet 5000 Series
HP LaserJet 5100 Series
HP LaserJet 5200
HP LaserJet 5200L
HP LaserJet 5M
HP LaserJet 5Si
HP LaserJet 8000 Series
HP LaserJet 8100 Series
HP LaserJet 8150 Series
HP LaserJet 9000 MFP
HP LaserJet 9000 Series
HP LaserJet 9000L MFP
HP LaserJet 9040
HP LaserJet 9040 MFP
HP LaserJet 9050
HP LaserJet 9050 MFP
HP LaserJet 9055mfp
HP LaserJet 9065mfp
HP LaserJet III
HP LaserJet IIID
HP LaserJet IIISi
HP LaserJet IIP
HP LaserJet M1522n MFP
HP LaserJet M1522nf MFP
HP LaserJet M2727nf MFP
HP LaserJet M3027 MFP
HP LaserJet M3035 MFP
HP LaserJet M4345 MFP
HP LaserJet M5025 MFP

Table B–1 (Cont.) Supported Printer Product Names

HP LaserJet M5035 MFP
HP LaserJet M9040 MFP
HP LaserJet M9050 MFP
HP LaserJet P2015 Series
HP LaserJet P2055
HP LaserJet P3004
HP LaserJet P3005
HP LaserJet P3010 Series
HP LaserJet P4014
HP LaserJet P4015
HP LaserJet P4515
Hewlett-Packard LaserJet IIISi
IBM InfoPrint 32/40
IBM Infoprint 21
LN17ps
LPS17
LPS17/600
LPS20
LPS20+
LPS32
LPS40
LPS40+
LaserJet 4
LaserJet II
LaserWriter II NT
LaserWriter II NTX
LaserWriter IIf
LaserWriter IIg
LaserWriter Personal NTR
LaserWriter Plus
LaserWriter Pro 600
LaserWriter Pro 630
LaserWriter Pro 810
LaserWriter Select 310
LaserWriter Select 320
LaserWriter Select 360
Lexmark C720
Lexmark C750
Lexmark C910

Table B–1 (Cont.) Supported Printer Product Names

Lexmark Optra C710
Lexmark Optra LaserPrinter
Lexmark Optra S 1250
Lexmark Optra S 1255
Lexmark Optra S 1620
Lexmark Optra S 1625
Lexmark Optra S 1650
Lexmark Optra S 1855
Lexmark Optra S 2420
Lexmark Optra S 2450
Lexmark Optra S 2455
Lexmark Optra Se 3455
Lexmark Optra T610
Lexmark Optra T612
Lexmark Optra T614
Lexmark Optra T616
Lexmark Optra W810
Lexmark T520
Lexmark T522
Lexmark T620
Lexmark T622
Lexmark W820
PacificPage
PaintJet XL300
Phaser 200e
Phaser 200i
Phaser 220e
Phaser 220i
Phaser 300i
Phaser 4500DP
Phaser 4500N
Phaser 4500X
Phaser 4510DT
Phaser 4510DX
Phaser 4510N
Phaser 5500DN
Phaser 5500DP
Phaser 5500N
Phaser 5500X

Table B–1 (Cont.) Supported Printer Product Names

Phaser 6250DN
Phaser 6250DP
Phaser 6250DT
Phaser 6250DX
Phaser 6250N
Phaser 7300DN
Phaser 7300DT
Phaser 7300DX
Phaser 7300N
Phaser 740
Phaser 740E
Phaser 740P
Phaser 750DP
Phaser 750DX
Phaser 750N
Phaser 7750DN
Phaser 7750DX
Phaser 7750GX
Phaser 780GN
Phaser 780N
Phaser 8400DP
Phaser 8400DX
Phaser 8400N
Phaser 850DP
Phaser 850DX
Phaser 850N
Phaser III PXi
RICOH Aficio 3035 PS3
RICOH Aficio 3045 PS3
RICOH Aficio 3235C PS3
RICOH Aficio AP400N PS3
RICOH Aficio AP410N PS3
RICOH Aficio AP4510 PS3
RICOH Aficio CL3500N PS3
RICOH Aficio CL4000DN PS3
RICOH Aficio CL7000 PS
RICOH Aficio CL7100 PS
RICOH Aficio CL7200 PS
RICOH Aficio CL7300 PS

Table B–1 (Cont.) Supported Printer Product Names

RICOH Aficio MP 161 PS3
RICOH Aficio MP 2510 PS3
RICOH Aficio MP 3500 PS3
RICOH Aficio MP 4500 PS3
RICOH Aficio MP 5500 PS3
RICOH Aficio SP 8100DN PS3
RICOH Aficio SP C410DN PS3
RICOH Aficio SP C411DN PS3
RICOH Aficio SP C811DN PS3
ScriptPrinter
Xerox DocuPrint N2025
Xerox DocuPrint N2125
Xerox DocuPrint N24
Xerox DocuPrint N2825
Xerox DocuPrint N32
Xerox DocuPrint N3225
Xerox DocuPrint N40
Xerox DocuPrint N4025
Xerox DocuPrint N4525
Xerox WCP 232
Xerox WCP 238
Xerox WCP 245
Xerox WCP 255
Xerox WCP 265
Xerox WCP 275
Xerox WCP 35
Xerox WCP 45
Xerox WCP 55
Xerox WCP 65
Xerox WCP 75
Xerox WCP 90
Xerox WCP C2128
Xerox WCP C2636
Xerox WCP C3545