

hp DECprint Supervisor (DCPS) for hp OpenVMS

Release Notes

January 2003

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 hp OpenVMS, Version 2.2 |
| Operating System: | hp OpenVMS Alpha, Version 6.2, 7.2-2, 7.3 or 7.3-1 hp OpenVMS VAX, Version 5.5-2, 7.2 or 7.3 |

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

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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.

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.

Document Structure

These release notes contain the following chapters and appendices:

- Chapter 1 describes changes included in DCPS V2.2.
- Chapter 2 provides information about using DCPS with specific printers.
- Chapter 3 identifies current restrictions that exist with DCPS V2.2.
- 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 files installed by DCPS V2.2 on OpenVMS Alpha systems.
- Appendix C lists files installed by DCPS V2.2 on OpenVMS VAX systems.

Related Documents

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

Table 1 DECprint Supervisor Documentation

| | |
|--|---|
| <i>Software Installation Guide</i> | Describes how to install DCPS |
| <i>System Manager's Guide</i> | Describes how system managers, data center operators and application programmers can create and manage DCPS print queues and solve printing problems. |
| <i>User's Guide</i> | Describes how to use DCPS to print to PostScript printers. |
| <i>Software Product Description (SPD 44.15.xx)</i> | Contains the full list of printers supported by DCPS and additional information about the features and requirements of DCPS V2.2. |

For additional information about HP OpenVMS products and services, visit the following World Wide Web address:

<http://www.openvms.compaq.com/>

Reader's Comments

HP welcomes your comments on this manual. Please send comments to either of the following addresses:

| | |
|----------|--|
| Internet | openvmsdoc@hp.com |
| Mail | Hewlett-Packard Company OSSG Documentation Group, ZKO3-4/U08 110 Spit Brook Road Nashua NH 03062-2698 |

How to Order Additional Documentation

For information about how to order additional documentation, visit the following World Wide Web address:

<http://www.openvms.compaq.com/>

Part numbers for DCPS-related documentation are listed in the *Ordering Additional Documentation* appendix of the *Software Installation Guide*, *System Manager's Guide* and *User's Guide*.

Conventions

The following conventions are used in this manual:

| | |
|-------------------|---|
| Ctrl/ <i>x</i> | A sequence such as Ctrl/ <i>x</i> indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button. |
| <div>Return</div> | <p>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.)</p> <p>In the HTML version of this document, this convention appears as brackets, rather than a box.</p> |

| | |
|--------------------|---|
| ... | <p>A horizontal ellipsis in examples indicates one of the following possibilities:</p> <ul style="list-style-type: none"> • 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. |
| () | 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 text | This typeface represents the introduction of a new term. It also represents the name of an argument, an attribute or a reason. |
| <i>italic text</i> | Italic text indicates important information, complete titles of manuals or variables. Variables include information that varies in system output (Internal error <i>number</i>), in command lines (/PRODUCER= <i>name</i>) and in command parameters in text (where <i>dd</i> represents the predefined code for the device type). |
| UPPERCASE TEXT | Uppercase text indicates a command, the name of a routine, the name of a file, or the abbreviation for a system privilege. |
| Monospace text | Monospace type indicates code examples and interactive screen displays. |
| - | 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 radices—binary, octal or hexadecimal—are explicitly indicated. |

DCPS Version 2.2 Information

This section describes changes included in DCPS V2.2. You can find more information for several of these changes elsewhere in these release notes.

1.1 DCPS Version 2.2 Changes

1.1.1 New Printers Supported

DCPS V2.2 adds support for the following printers:

GENICOM Intelliprint mL260
 HP Color LaserJet 2500
 HP Color LaserJet 5500
 HP LaserJet 4200
 HP LaserJet 4300
 HP LaserJet 5100
 HP LaserJet 4100 MFP
 HP LaserJet 9000 MFP
 Lexmark C750

1.1.2 Autostart Queues Supported

DCPS now supports the autostart feature for execution queues. To make a DCPS queue be an autostart queue, specify `AUTOSTART_ON` in the `P2` parameter to `DCPS$EXECUTION_QUEUE` in `DCPS$STARTUP.COM`. For example:

```
$ IF .NOT. SETUP_MODE THEN @SYS$STARTUP:DCPS$EXECUTION_QUEUE -
  COLOR_PRINTER -
  AUTOSTART_ON=(FOO,BAR)::"IP_RawTCP/hp5500.lkg.dec.com" -
  DCPS_LIB
```

In this example, the execution queue `COLOR_PRINTER`, printing to the printer at `hp5500.lkg.dec.com` over *raw TCP*, is set to autostart on nodes `FOO` and `BAR`.

Please note the following details concerning autostart:

- The same protocol and device is used on all nodes. You must ensure the printer device is available on any node specified in the autostart list.
- DCPS does not check the node name(s) you specify to determine if it is an existing node name. Be sure to specify the node name correctly.
- You must ensure that DCPS is installed and configured on every node specified in the autostart list.
- DCPS autostart queues are activated for autostart when `DCPS$STARTUP` is run, unless it is being run in setup mode. (See Section 1.1.4 for more information about running the DCPS startup procedure in setup mode.)
- `AUTOSTART_ON` may be abbreviated as `AUTO`.

- Do not use double colons (::) when specifying nodes in the autostart list. A double colon must be used to separate the list of autostart nodes and the rest of the P2 parameter.

1.1.3 Port Number Made Optional

Previously, if you were using raw TCP to print, a port number had to be specified in the P2 parameter to DCPSS\$EXECUTION_QUEUE in DCPSS\$STARTUP.COM. Port 9100 is now assumed if no port number is specified.

1.1.4 New Setup Mode for Startup Procedure

The DCPS startup procedure, DCPSS\$STARTUP, can now be run in a shortened “setup” mode. This mode would most commonly be used if your queues are autostart queues, and you wanted to speed up the execution of DCPSS\$STARTUP. In setup mode, logical names needed by DCPS are defined, but no queues are created, modified or started.

To run DCPSS\$STARTUP in setup mode, pass SETUP as the P1 parameter. For example,

```
$ @SYS$STARTUP:DCPSS$STARTUP SETUP
```

To define logical names, DCPSS\$STARTUP now creates a “setup file” each time it runs in normal (non-setup) mode. This file is called DCPSS\$STARTUP_SETUP.COM and is run when DCPSS\$STARTUP is later run in setup mode. The setup file should not be modified and is only for use by DCPSS\$STARTUP.

Please note the following details concerning setup mode:

- When run in setup mode, all commands in DCPSS\$STARTUP.COM are executed, except for initializing or modifying queues with calls to DCPSS\$EXECUTION_QUEUE and DCPSS\$GENERIC_QUEUE. All other code, such as creating LAT devices or defining queue-related logical names such as DCPSS\$queue_name_NO_SYNC will be executed.
- If the setup file does not exist when DCPSS\$STARTUP is run in setup mode, startup will run in normal mode and a setup file will be created.
- DCPSS\$STARTUP will display whether it is running in setup or normal mode.
- If running in setup mode, DCPSS\$STARTUP will display the creation date of the setup file it is using.
- If running in setup mode, and DCPSS\$STARTUP.COM has been modified since the setup file was created, an informational message will be displayed. Startup will continue in setup mode, ignoring changes to the procedure made in the portion of DCPSS\$STARTUP that does not run in setup mode. In this case, DCPSS\$STARTUP.COM should be reviewed to see if any changes affecting queues were made, and run again in normal mode so a new setup file can be created.
- To use DCPSS\$STARTUP in setup mode, you must copy the new DCPSS\$STARTUP.TEMPLATE to DCPSS\$STARTUP.COM and incorporate your site-specific modifications.

1.1.5 New Generic HP Class of Printer

If you try to print to a printer model unsupported by DCPS, the printer is classified as an “unrecognized” printer and while printing is attempted, it may not be successful.

DCPS now has a “generic HP” class of printer to help in printing to new HP printer models. When printing to an HP printer not recognized by DCPS, a set of paper sizes, tray names and commands to select those trays, known to work with HP printers, are used. Therefore, features not available with an “unrecognized” printer are probably available with an “generic HP” printer. These features include tray selection and use of the printer’s native PCL interpreter.

If a printer is being treated as a “generic HP” printer, an OPCOM message will be issued similar to the one used with “unrecognized” printers:

```
%%%%%%%%%% OPCOM 14-NOV-2002 16:25:43.37 %%%%%%%%%%
Message from user SYSTEM on FUNYET
Queue NEW_PRINTER: %DCPS-W-HPGENERIC, Product name hp LaserJet 9999 not
recognized; assuming HP Generic
```

1.2 DCPS Version 2.2 Fixes

The following problems are fixed in DCPS V2.2.

1.2.1 Tray Name Restored

In DCPS V2.1, the output tray SIDE was inadvertently removed from the possible trays on the HP LaserJet 8000, 8100 and 8150 printers. This tray was still selectable with the name STACKER, but is now selectable by either name.

Printer-Specific Information

The following sections provide 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 Problems Starting Queues

Some HP printers do not respond to the DCPS synchronization request at the beginning of a job. Therefore, you must define the logical name `DCPSS$queuename_NO_SYNC` before queues to these printers are started, or DCPS jobs will not start. See Section 3.2 in these Release Notes or the *DCPS System Manager's Guide* for more information. The printers for which you must define the logical name are:

HP Color LaserJet 2500
HP Color LaserJet 5500
HP LaserJet 4200
HP LaserJet 4300

It is also recommended that the printer's personality setting be set to PS (PostScript).

Note

Setting the printer's personality to PS (PostScript) alone will not solve the problem for these printers. This problem is expected to be resolved in a future version of printer firmware.

2.2 HP Color LaserJet 2500

The HP Color LaserJet 2500 printer cannot detect the size of paper in its trays, even if the size has been specified via the printer's console. 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.

2.3 HP LaserJet 4200, 4300 and 9000 MFP

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

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.

If you specify OUTPUT_TRAY=STAPLER, the printer will staple output by default and place the staple in the printer's default staple position. Job burst and flag pages, if any, will be stapled to your job.

Not all staple positions are possible given the printer's paper feed direction and page orientation specified. Also, the HP LaserJet 9000 offers more possible stapling positions than the LaserJet 4200 and 4300 printers, which can staple only at the top left for portrait output and top right for landscape output.

DCPS Restrictions

The following sections identify 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 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.

3.2 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.

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. 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 queued jobs for which desired output was lost, and delete the other queued 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.

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, unfortunately, 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 to separate jobs by offsetting them, 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, setlcitray 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
  /setlcitray      { statusdict begin 1 setpapertray end } def
end
```

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

3.9 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.

3.10 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)

3.11 Printer Name Is Not Always Printed Correctly

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

3.12 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.

3.13 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.

3.14 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.

3.15 Embedded PJI Commands Discarded; Avoid Binary Mode

Drivers that create files for PJI printers, such as those for the DECaser 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.

3.16 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 IIG, 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.

3.17 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.

3.18 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.

3.19 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.

3.20 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.

3.21 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.

3.22 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.

3.23 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 DCPS and remedial patch kits (“ECOs”) that address some of these problems.

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

- From an HP 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 an HP support tool such as DSNlink

4.1 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

4.2 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:

- 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.

4.3 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

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 kits fix this problem:

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

4.5 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

4.6 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

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

| | |
|--------------------------------|------------------------|
| DCPS022.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] |

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| 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] |
| 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

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|--------------------------------|------------------------|
| DCPS022.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] |

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| 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] |