

Advanced Printing Software

Command Reference Guide

September 2002

Product Version: Advanced Printing Software, Version 1.2

Operating System and Version: Tru64 UNIX Version 5.1B or higher.

This manual provides specific information about the commands that are used to manage, monitor, and submit print jobs to the Advanced Printing Software printing system. This manual is intended for administrators, operators, and users of the printing system.

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About This Manual

The *Command Reference Guide* provides the information needed to maintain and operate the Advanced Printing Software printing system. The command line interface, or CLI, provides access to all of the Advanced Printing Software functionality. With the CLI, you are allowed to function within the Advanced Printing Software printing system by entering commands either directly on the command line or through shell scripts.

Audience

This manual provides specific information about the commands that are used to manage, monitor, and submit print jobs to the Advanced Printing Software. This guide is intended for administrators, operators, and users of the printing system.

Organization

This manual consists of the following sections:

- Chapter 1 – provides an overview of the command line interface and the syntax that must be adhered to when submitting commands.
- Chapters 2 and 3 – describe each command and describe the available options for a command.
- Appendix A – describes all of the attributes supported by the printing system.
- Appendix B – describes filter operations.
- Appendix C – describes the events that can be tracked with the event notification feature of the print system.
- Appendix D – describes the output that is produced when using the brief and verbose options when viewing attribute values.

Related Documentation

In addition to this manual, the following documents and online help volumes are available to support the use and administration of the print system:

<i>Advanced Printing Software Installation Guide</i>	Describes how to install the Advanced Printing Software subsets.
<i>Advanced Printing Software System Administration and Operation Guide</i>	Describes how to configure and manage the Advanced Printing Software printing system.
<i>Advanced Printing Software User Guide</i>	Describes how to submit and monitor print jobs using the Advanced Printing Software command line interface.
GUI Help Files	Help volumes are accessible from the <code>pdprintadmin</code> , <code>pdprint</code> , and <code>pdprintinfo</code> GUI client files.

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Conventions

This document uses the following typographical and symbol conventions:

%

\$

A percent sign represents the C shell system prompt.
A dollar sign represents the system prompt for the Bourne, Korn, and POSIX shells.

% **cat**

Boldface type in interactive examples indicates typed user input.

file

Italic (slanted) type indicates variable values, placeholders, and function argument names.

[|]

{ | }

In syntax definitions, brackets indicate items that are optional and braces indicate items that are required. Vertical bars separating items inside brackets or braces indicate that you choose one item from among those listed.

cat(1)

A cross-reference to a reference page includes the appropriate section number in parentheses. For example, cat(1) indicates that you can find information on the cat command in Section 1 of the reference pages.

Introduction

1.1 Advanced Printing Software Users

Advanced Printing Software users are classified by their access and privilege levels. The ability to access certain commands depends on which access category the user is assigned. Users can be assigned End User, Operator, or Administrator privileges. The End User has access to only certain operations. The Administrator has access to all levels of operation. The Operator access falls in between the End User and the Administrator.

The following sections define the three types of Advanced Printing Software users.

1.1.1 End User

As an end user you can perform the following operations:

- Submit a print job to a printer.
- List the names and values of print object attributes.
- Request the status of print jobs that they submitted.
- Modify or set job and document attributes of jobs that they previously submitted.
- Remove, cancel, or delete print jobs or particular documents within a multi-document job that they previously submitted.
- Request that print jobs that they submitted be resubmitted to another specified printer.

1.1.2 Operator

In addition to accessing all of the operations available to the end user, an operator may perform the following tasks:

- Cause a specified print job to be moved forward to print next on the physical printer to which it was submitted.
- Request that specified print jobs that have been accepted by a print server be resubmitted to another specified printer.
- Enable the acceptance of new print jobs by the specified printer, queue, or server.

- Disable the acceptance of new print jobs by the specified printer, queue, server.
- Set `xxx-ready` attributes on printers.
- Pause pending jobs, currently printing jobs, printers, queues or servers.
- Resume paused jobs, printers, queues, or servers.
- Shut down the specified printers.

1.1.3 Administrator

In addition to those operations performed by end users and operators, an administrator can perform the following tasks:

- Remove all the jobs currently scheduled on the specified server or queue.
- Create initial value documents, initial value jobs, printers, or queues, and set their attributes to the values specified in the options.
- Delete document, job, initial-value-document, initial-value-job, printer, server, and queue objects.
- Set the attribute values for all print objects.

1.2 Command Syntax and Elements

The syntax for all command line utility operations has the format shown below.

`utility-name -option -option option-argument object-instance`

A command line operation consists of the following elements:

- The command
- Options and arguments
- Operands

1.2.1 Utilities

A utility is a CLI program that performs Advanced Printing Software functions. The name of the utility must be the first element of the command line. There are several types of utilities.

Table 1–1 lists the CLI utilities used by a system administrator to create and manage objects in the print system.

Table 1–1: Administrator Utilities

Utility	Description
pdcreate	Create an object and set its attributes.
pddelete	Delete an object.
pdmakedb	Create an object database for a print system supervisor or spooler.
pdmoddb	Modify an existing object database.
pdset	Set the attributes of printing objects.
pdshowdb	Display an object database.

Table 1–2 lists the CLI utilities used by an operator to maintain the print system.

Table 1–2: Operator Utilities

Utility	Description
pdclean	Remove all jobs scheduled on a specified server, queue, or printer.
pddisable	Stop acceptance of print jobs by servers or printers.
pdenable	Allow acceptance of print jobs by servers or printers.
pdpause	Pause jobs, servers, or printers.
pdpromote	Promote a job to print next on a printer.
pdresume	Resume paused jobs, servers, or printers.
pdset	Set the attributes of printing objects.
pdshutdown	Shut down servers or physical printers.

Table 1–3 lists the CLI utilities used by an end user to submit jobs and obtain status of those jobs on the print systems.

Table 1–3: CLI End User Utilities

Utility	Description
pdls	List printing object attributes.
pdmod	Modify previously submitted jobs or documents.
pdpr	Submit a print job.
pdq	Report or obtain status of print jobs.
pdresubmit	Resubmit print jobs to another logical printer.
pdrn	Remove print jobs or documents.

1.2.2 Options

An option is part of a command used to modify the default behavior of a utility. As shown in the following example, options are preceded by a hyphen character (-).

```
command_name argument object_instance
```

In addition,

- Option names consist of a single lowercase or uppercase letter.
- All options must precede the operand.
- The utility programs interpret options and option arguments in the order in which they appear on the command line.
- Due to some repeated options, you must look at the detailed description of the utility to determine which option is valid for each command.

Table 1–4 lists all available options with a brief functional description.

Table 1–4: Common Options and Arguments

Option	Description
-c <i>class_name</i>	Identifies the object class of the operand.
-f <i>filename</i>	Identifies a file that is to be printed as a document in a print job.
-f <i>filter_text</i>	Specifies the selection criteria to be used among candidate objects.
-F	Turns off all filtering, including any default filtering provided when the -f option is unspecified. This option takes precedence over any -f <i>filter_expression</i> options that are specified.
-g	Turns off column headings on output of requested attributes specified with the -r option.
-h	Writes a message to standard output on how to invoke the utility.
-m <i>message_text</i>	Attaches a human-readable message to the specified object.
-n <i>copies</i>	Specifies the number of copies of the print job that should be printed.
-N <i>notification_method</i>	Specifies how a user wishes to be notified of events that occur during print job processing.
-p <i>printer_name</i>	Specifies the printer to which the print job is to be submitted.
-r <i>requested_attributes</i>	Specifies those attributes the utility writes to standard output.
-r <i>retention_period</i>	Specifies the amount of time a server should keep a job in the retained state before deleting the job.
-s <i>style_name</i>	Determines the style (format) in which output is written to standard output.

Table 1–4: Common Options and Arguments (cont.)

Option	Description
-t <i>job_name</i>	Assigns a name to a new print job.
-w <i>when_time</i>	Specifies when you want the server to shut down.
-x <i>extended-attribute-string</i>	Identifies one or more <i>attribute_type=value</i> pairs to be used by the utility.
-X <i>attribute_filename</i>	Identifies a file that contains <i>attribute_type=value</i> pairs to be used by the utility.

1.2.3 Option Arguments

Many options require arguments. Where applicable, the argument provides the specifics for a given switch. For example, -c queue specifies that the object to be manipulated is a queue rather than the system default for the operation.

As shown in Table 1–4, not every option requires an argument.

1.2.4 Attributes

The -x and the -r arguments include attributes. An object attribute is a property or characteristic of a print object. Client attributes specify parameters for the operation of CLI commands. This manual refers to two types of attributes:

- Object attribute
- Command attribute

1.2.4.1 Object Attributes

Each print object is defined by a set of object attributes. The characteristics of each print object can be changed by setting the values of its attributes. For example:

- The value of the printer attribute *printer-state* indicates the current state of the print object, such as *idle* or *printing*.
- The value of the printer attribute *media-supported* identifies the specific media that the physical printer supports, such as *iso-a4-white* or *iso-a4-transparent*.
- The value of the printer attribute *printer-name* is the name that uniquely identifies a specific printer.
- The value of the document attribute *sides* can be set to 2 to indicate 2-sided printing is required.

Attributes can be applied to a print object in one or all of the following ways:

- As system defaults.
- Directly by specifying the attribute and value, called an extended attribute string, in the command line operation.

1.2.4.2 Command Attributes

Command attributes specify parameters for the operation of CLI commands and provide additional capabilities to the user. Command attributes can be used to:

- Format print object status and properties information.
- Copy attributes from one object to another.
- Specify the length of time a server should keep a job in the retained state after it has been terminated.

1.2.4.3 Attribute Representation

The representation for both object and command attributes is the following:

- The attribute name, which identifies the specific attribute.
- An operator, the equal (=) sign, which indicates that the attribute is to be set to a new value.
- The new attribute value.

For example,

When creating a new printer the administrator sets the following attribute to identify the physical location of the printer:

```
"printer-locations = 'Lab A, Bldg. 21'"
```

1.2.4.4 Attribute Value String Syntax

Most of the CLI utility commands accept the -x option followed by a list of attributes and their values. This list is called an attribute value string. The following list defines the special quoting rules required when the -x option is used:

- Double quotes can surround the entire attribute value string.
-x "attribute = value"
- Multiple attribute value strings can be entered by either multiple instances of the -x option or by multiple attribute value strings following a single -x option.
-x "attribute1 = value1" -x "attribute2 = value2"

- x "attribute1 = value1 attribute2 = value2"
- Attributes that have multiple values are specified by surrounding the entire attribute value string or only the value with quotes.
 - x attribute = "value1 value2 value3"
 - x "attribute = value1 value2 value3"
- Attributes with text type syntax that include spaces must be surrounded by two levels of quotes.
 - x attribute = "'single valued string with spaces'"
 - x 'attribute = "single valued string with spaces"'
 - x attribute = "'value1 with spaces' 'value2 with spaces'"
 - x "attribute = value attribute = 'a text attribute with spaces'"
- Quotes or apostrophes within an attribute value must be preceded by a back slash.
 - x attribute = "'It\'s time to retire'"
 - x "attribute = 'Bob\'s printer'"
- White space (spaces, tabs) within attribute strings.
 - x "attribute = 'Hello'"
- Complex attributes are specified using braces { }. Each component of the complex attribute is enclosed with these braces as if it were itself an attribute.
 - x finishing = {named-finishing=offline finishing-message = 'Send out for special finishing' }

1.2.4.5 Abbreviating Attributes and Values

You can abbreviate attributes and standard identifier values by using only a few letters of each word in the name or value. For example, you can use the abbreviation *j-s* for the *job-sheets* attribute, *j-c-s* for the *job-copy-start* value, and specify the *attribute=value* pair as *j-s=j-c-s*.

The system accepts only unambiguous abbreviations. For example, abbreviating *job-owner* as *j-o* is not valid because it might be confused with *job-originator*. You need to specify enough of the attribute or value name such that it is unique. If you specify an ambiguous abbreviation, the command is rejected.

Examples of valid abbreviations are *j-ow* for *job-owner*, *j-or* for *job-originator*, and *i-a3-w* for *iso-a3-white*.

You cannot abbreviate name values that are not standard identifiers, such as site-specific media or tray names.

1.2.4.5.1 Delta Time Syntax

When requesting attributes values that are expressed in delta time, set all three of the attribute fields. Consider the following examples:

1. Retain job 2002 for 35 seconds before deleting it from spooler server `casper`.

```
pdrm -r 00:00:35 casper:2002
```

The value for minutes is a number 0 through 59. A number greater than 59 is invalid.

2. Retain job 346 for 4 minutes before deleting it from spooler server `cheerio`.

```
pdrm -r 00:04:00 cheerio:346
```

3. Retain job 663 for 1 hour before deleting is from spooler server `waffles`.

```
pdrm -r 01:00:00 waffles:663
```

Time value formats are locale-dependent and may vary from locale to locale. For example, a period (.) may be used rather than a colon (:) to separate the attribute fields on the command line.

1.2.4.6 Attribute Modification Operations

You can include an operator with attribute=value pairs to indicate the type of modification to be done to the specified attribute. The three modification operators are:

- **+** (add value) – When you use attribute+=value, you add a value to the attribute. This can only be used with multi-valued attributes. If you add a value that already exists, the attribute contains the same value twice.
- **-** (remove value) – When you use attribute-=value, you remove a value from the attribute. If the value is not present, `pdset` ignores the command. If you remove the last value for an attribute, `pdset` sets the value to the server. If a value to be removed occurs more than once, `pdset` removes all occurrences.
- **=** (reset to default value) – When you use attribute==, you set the attribute value to its default. Do not include a value when resetting to the default value.

1.2.4.7 Attribute Files

An attribute file is a user-written file that contains multiple attribute *type=value* pairs. You use a text editor to create an attribute file. The following rules apply to the use of attribute files:

- A line in an attribute file has a maximum length of 1024 characters.
- Each line in the file can contain one or more strings but one string cannot span multiple lines.
- If the path to the attribute file is included in the *attribute_filename*, the specified file will be used by the utility. If the path is not included, the *PDPATH* environment variable is referenced.
- Using the comment character (#) causes everything that appears after it on the line to be ignored.

1.2.5 Operand

The operand identifies the object on which the command is to be executed. For example; `pdpr -p wiley cli.doc` means to submit the file called `cli.doc` to the logical printer called Wiley. In this manual the operand is referred to as the *object_instance*.

The syntax and conditions of the *object_instance* are as follows:

[server_name:]object_name

- The object in *object_name* must belong to the class specified in the *-c class_name* option included in the command line, or by the default. Table 1–5 details object classes and defines the operand associated with each class.
- In some cases, the object instance can consist of the name of the server the object is associated with, and the name of the object itself, *[server_name:]object_name*. When this is the case,
 - If the server name is included, the named object on the specified server is affected by the operation.
 - If the server name is not included, the named object on the default server is affected by the operation.
- If multiple operands are specified in the command line, the order in which they appear may be important based on the specific utility.

Table 1–5: Object Classes

Object Class	Definition
server	The name of the server the operation is affecting.
printer	The name of the printer the operation is affecting.
queue	The name of the queue the operation is affecting.
job	The system-assigned number that uniquely identifies the job the operation is affecting.
document	The system-assigned number that uniquely identifies the job, and the number that identifies the position of the specific document within the job, that the operation is affecting.
initial value job	The name of the specific initial-value-job the operation is affecting.
initial value document	The name of the specific initial-value-document the operation is affecting.

1.3 Environment Variables

You can use environment variables to hold information specific to your system and site configuration. For example, you can use environment variables to set defaults, determine paths to locate files, provide numeric, character, and date and time format information, and the language to be used.

The CLI utilities use the current value of an environment value as the default, unless you specifies a different value in a command line operation. Table 1–6 lists four environment variables that, based on their value, may affect the operation of the CLI.

Table 1–6: Environment Variables that Affect CLI Operations

Variable	Description
NLSPATH	The value of this variable becomes the path for CLI message files if the files are not stored in the standard directory.

Table 1–6: Environment Variables that Affect CLI Operations (cont.)

Variable	Description
PDPATH	The value of this variable consists of a colon-separated list of directories (the path) that are successively tried for the file that is named in the <code>-X <i>attributes_filename</i></code> option.
PDPRINTER	<p>The value of this variable is used as the default printer by the print client when the attribute <code>printer-name-requested</code> or the option <code>-p <i>printer_name</i></code> is not included in the command line operation.</p> <p>This variable is also used to select a server for operations when a server is not specified since the server that contains this printer is viewed as the default server.</p>

2

User Commands

pdconntf(1)

NAME

pdconntf – Advanced Printing Software client notification daemon.

SYNOPSIS

`/usr/pd/lib/pdconntf [-llogfile]`

OPTIONS

`-llogfile` Writes event messages to the specified log file.

DESCRIPTION

The `pdconntf` client notification daemon listens for server-generated printing system event messages and writes them to the local system console window, typically `dxconsole`.

If you wish to use console notification when print jobs complete or when printer events occur, the `pdconntf` daemon must be running on your print client host.

To run `pdconntf`, enter the following command: .

```
/usr/pd/lib/pdconntf
```

To stop `pdconntf`, send it a terminate signal as follows:

```
% kill -TERM <pdconntf-process-id>
```

The `pdntfs` notification server process relays notification messages to a client notification daemon when an event's notification profile specifies that client's network address.

Electronic mail notification does not require the `pdconntf` daemon.

The Advanced Printing Software GUI clients, `pdprintinfo` and `pdprintadmin`, do not require `pdconntf`; they receive and display the notification events directly.

FILES

`/usr/pd/lib/pdconntf` - client notification daemon executable

`/usr/pd/lib/pdntfs` - notification server executable

pdconntf(1)

SEE ALSO

Advanced Printing Software System Administration and Operation Guide

pdls(1)

NAME

pdls – lists print system attributes

SYNOPSIS

```
pdls [-c class_name] [-f filter_expression] [-F] [-g] [-r requested_attributes]  
[-s style_name] [-x extended_attribute_string...] [-X attribute_filename  
...] [object_instance]...
```

OPTIONS

-c *class_name*

Specifies the class or type of object.

The values allowed are:

document

initial-value-document

initial-value-job

job (default)

printer

queue

server

You can abbreviate these values to reduce typing. For example, printer can be abbreviated with the letter “p” and initial-value-document can be abbreviated as “i-v-d.” The OPERANDS section describes the operand syntax associated with each class.

If you use the **-x** string option or the **-X** file option, the equivalent attribute is `class-type=class_name`.

-f *filter_expression*

Specifies an attribute query filter, expressed as a logical expression, to select a subset of object values.

The default value for the filter depends on the class of the object and is one of the following:

When you request a list of jobs, a default filter is used and is equivalent to `job-owner=your_username`.

When the object is anything other than job, the default is no filter.

pdls(1)

Refer to the *Advanced Printing Software Command Reference Guide* for information about constructing attribute query filters.

-F

Turns off all attribute filtering, including any default filtering that occurs when you do not specify the **-f** option.

The **-F** option takes precedence over **-f filter_expression** options that you specify on the command line.

-g

Omits line and column headings.

-r requested_attributes

Specifies the attributes that you want displayed in an attribute report.

You can use the following values for *requested_attributes*:

brief (default)

Displays a short subset of the object's attributes.

verbose

Displays an expanded set of attributes.

all

Displays all the object's attributes.

request_attribute_lists

Displays one or more object attributes that you specify.

If you use the **-x** string option or the **-X** file option, the equivalent command attribute expression is `requested-attributes=requested_attributes`.

-s style_name

Specifies how output is to be formatted.

The values for *style_name* are:

column (default)

Displays attributes in a multicolumn format.

line

Displays each attribute value on a separate line.

pdls(1)

-x extended_attribute_string

Specifies attribute=value pairs on the command line.

You cannot specify object attributes in the *-x* option; you can only specify command attributes.

You can use the following command-line attributes:

attributes

class

count-limit

filter

headings

requested-attributes

scope

style

time-limit

-X attribute_filename

Specifies an attributes file that the utility can read. An attributes file is a user-written file that contains one or more attribute=value pairs. When the utility runs, it processes the attribute definitions in the file at the current point in the command line, as though you had entered them with the *-x* option.

If you include the path name to the attribute file in the *attribute_filename*, *pdls* uses that path. If you do not include the path and the file is not in your current working directory, the utility searches for the file in the path name specified by the *PDPATH* environment variable.

OPERANDS

The *pdls* utility accepts one or more optional operands. Each operand is an object instance; that is, a particular printer, queue, job, server or initial value object. The operand values depend on the class of the object. All object must be of the same class.

[server_name:]job_id

When *class_name* is *job*, the utility lists the requested attributes of a job. This is the default. The value of *job_id* is a unique job identifier.

pdlis(1)

For example, `red_spl:120` identifies the job with an ID of 120 on spooler `red_spl`.

`[server_name:]ob_id.doc_int`

When *class_name* is `document`, the utility lists the requested attributes of the document identified by `job_id.doc_int`. The document identifier (`doc_int`) represents the document's position in the job. For example, `red_spl:120.2` identifies the second document in job 120 on the spooler `red_spl`.

`[server_name:]ivdoc_name`

When *class_name* is `initial-value-document`, the utility lists the requested attributes of the initial-value-document object named in *ivdoc_name*.

`[server_name:]ivjob_name`

When *class_name* is `initial-value-job`, the utility lists the requested attributes of the initial-value-job object named in *ivjob_name*.

`[server_name:]printer_name`

When *class_name* is `printer`, the utility lists the requested attributes of the printer named in *printer_name*. The value of *printer_name* can be the name of a logical or physical printer. If you omit *printer_name*, the utility displays information about all printers on the server.

`[server_name:]queue_name`

When *class* is `queue`, the utility lists the requested attributes of the queue named in *queue_name*.

server_name

When *class_name* is `server`, the utility lists the requested attributes of the spooler or supervisor identified by *server_name*.

server_name:

For all object classes, specifying a server name terminated by a colon character causes the utility to list all objects of the specified class defined on the spooler or supervisor identified by *server_name*.

pdls(1)

DESCRIPTION

The `pdls` utility displays attributes and values of print system objects, such as printers, queues, jobs, documents, and server processes. You can use this utility to list the attributes of:

- An object you specify
- All objects of a class you specify (except the server class)
- A subset of all objects that you have filtered

The utility displays information only about an object for which you have sufficient access-control privilege. For jobs belonging to other users, the server returns only those attributes specified in the server attribute `job-attributes-visible-to-all`. The utility writes its list of attributes to standard output.

ACCESS LEVEL: End user

ENVIRONMENT VARIABLES

PDPRINTER

Specifies your default logical printer. Also, implicitly specifies a default spooler as the one that hosts your default logical printer.

PDPATH

Specifies the path name to be used by the utility if you specify an attribute file, you do not include the path, and the file is not in your working directory.

EXAMPLES

1. List all your jobs on the default spooler, the one that contains your default logical printer identified by `PDPRINTER` environment variable:

```
pdls
```

2. List all jobs on the default spooler:

```
pdls -F
```

3. List all queues on spooler `blue_spl`:

```
pdls -c queue blue_spl:
```

pdls(1)

4. List all physical printers on supervisor blue_sup:

```
pdls -c printer blue_sup:
```

5. List all attributes for two printers, LP1 and PP2:

```
pdls -c printer -r all -s line LP1 PP2
```

6. List initial-value-document objects, on separate lines, on spooler blue_spl:

```
pdls -c i-v-d -r all -s line blue_spl:
```

7. List logical printers and their respective initial-value objects on spooler blue_spl:

```
pdls -c pr -r "pr-name pr-i-v-j pr-i-v-d" blue_spl;
```

8. List all job and document attributes, on separate lines, for job 3127:

```
pdls -c job -r all -s line -x "scope=1" 3127
```

9. List all physical printers that need attention on supervisor blue_sup:

```
pdls -c pr -f '(pr-state==timed-out) || (pr-state==need-att)' \  
blue_sup:
```

SEE ALSO

Commands: pdpr(1), pdq(1), pdrm(1), pdset(1), pdcreate(8), pddelete(8)

pdmod(1)

NAME

pdmod – modifies attributes of a submitted print job

SYNOPSIS

```
pdmod [-g] [-m message_text] [-n copies] [-N notification_method]  
[-r requested_attributes] [-s style_name] [-t job_name] [-x  
extended_attribute_string...] [-X attribute_filename...] [server_name: ]  
job_id [.doc_int]
```

OPTIONS

-g

Omits line or column headings. If you use this option with the -x string option, the equivalent attribute is `headings=no`.

-m *message_text*

Includes a message about the job or document that you are modifying. For example, when you are modifying a job, the message might be:

-m “Copies required changed to 1000.”

To use the -x extended-attributes-string option or the -X attribute_filename option, the equivalent command attribute type and value are:

For documents: `message=message_text`

For jobs: `job-message-from-administrator=message_text`

-n *copies*

Specifies the number of copies of the print job to print. If you use the -x string option or the -X file option, the equivalent attribute is `job-copies=number`.

-N *notification_method*

Specifies how you want to be notified when your job has completed.

You can use the following values for *notification_method*:

message

pdmod(1)

The host processing the request sends a message to the system console window on your workstation, typically the `dxconsole` program. The console window must be open to view the message.

email

The host processing the request sends an email message to your username account on your client host.

`-r requested_attributes`

Specifies a set of job attributes that you want `pdmod` to display to standard output while performing its operation.

You can use the following values for `requested_attributes`:

all

Writes all the job's attributes to output.

verbose

Writes an expanded set of job attributes to output.

brief

Writes a subset of the verbose list attributes to output.

none (default)

Does not write any attributes to output.

To use this option in an attribute file, the equivalent attribute is `requested-attributes=requested_attributes`.

`-s style_name`

Specifies the formatting of output for the `-r requested_attributes` option.

You can use the following values for `style_name`:

column (default)

Displays requested attribute in columns.

line

Displays each attribute value on a separate line.

If you use the `-x` string option or the `-x` file option, the equivalent attribute is `style=style_name`.

pdmod(1)

`-t job_name`

Specifies a new name for the job that you are modifying. If you use the `-x` string option or the `-X` file option, the equivalent command attribute is `job-name=job_name`.

`-x extended_attribute_string`

Specifies one or more attribute type=value pairs to be used by the utility. You can specify any read/write job and document object attributes with the `-x` and `-X` options.

Refer to the *Advanced Printing Software Command Reference Guide* for a complete listing of all supported job and document attributes.

You can use the following command line attributes:

headings

style

filter

job-name

copy-count

message

`-X attribute_filename`

Specifies an attributes file for the utility to read. When the utility runs, it processes the attribute definitions in the file at the current point in the command line, as though you had specified them with the `-x` option.

OPERANDS

`server_name`

Identifies the server on which the job you are modifying resides. If you do not specify a server name, the operation is attempted on the default server, the spooler associated with your default logical printer, specified by the PDPRINTER environment variable.

`job_id`

Identifies a job you want to modify. If you do not know the job ID of the job you want to modify, use the `pdq` command to display a list of jobs in the printer queue.

pdmod(1)

doc_int

Identifies a document that you want to modify within the job. It must be at least 1 and cannot be greater than the total number of documents in the job.

For example, *big_spl:116.3*, identifies the third document in job 116 on the spooler named *big_spl*.

If you do not specify *doc_int*, *pdmod* modifies all documents in the job and applies attributes you have specified for the job.

If you specify *doc_int*, *pdmod* modifies only document attributes on the document you have specified. *pdmod* returns an error if you specify modifications to job attributes.

DESCRIPTION

The *pdmod* utility modifies job and document attributes of a job that you have submitted for printing but that has not yet started to print. Changes you make to the job are persistent; that is, they remain in place after the system is restarted.

The job you are modifying does not lose its position in the queue; however, a resource check of the entire job or document attributes takes place again if you resubmit the print job.

ACCESS LEVEL: End user

EXAMPLES

1. Change the copy count to 4 for the job with an ID of 10 on spooler1:

```
pdmod -n 4 spooler1:10
```

2. Change the job retention period to one hour for job 32704 on the default spooler:

```
pdmod -x "job-retention-period=1:00:00" 32704
```

3. Change the default media for the third document of job 12987 on the default spooler:

```
pdmod -x "default-medium=a" 12987.3
```

pdmod(1)

SEE ALSO

Commands: `pdpr(1)`, `pdls(1)`, `pdq(1)`, `pdrm(1)`, `pdset(1)`

pdpause(1)

NAME

pdpause – pauses a print job, physical printer, queue, or spooler

SYNOPSIS

pdpause [-c *class_name*] [-m *message_text...*] [-x
extended_attribute_string...] [-X *attribute_filename...*] *object_instance...*

OPTIONS

-c *class_name*

Specifies the class or type of the object.

The following values are allowed:

- printer (physical printers only) This is the default.
- job
- queue
- server (spooler only)

To use the -x string option or the -X file option, the equivalent attribute is `class=class_name`.

-m *message_text*

Include a message about the specific object. For example, if you are pausing a physical printer, the message might be:

-m “Printer paused, not currently printing jobs.”

To use the -x extended-attributes-string option or the -X attribute filename option, the equivalent command attribute type and value are:

- For physical printers, queues, and spoolers:

`message=message_text`

- For jobs:

`job-message-from-administrator=message_text`

The option looks like this:

-x “message=’Printer1 paused, not currently printing jobs’”

pdpause(1)

`-x extended_attribute_string`

Specifies attribute type=value pairs to be used by the utility.

You cannot set object attributes with the `-x` option of the `pdpause` command. You can use the following command attributes:

attributes

class

message

`-X attribute_filename`

Specifies an attribute file for the utility to read. When the utility runs, it processes the attribute definitions in the file at the current point in the command line, as though you had specified them with the `-x` option.

OPERANDS

The value you supply for the operand depends on the value given with the `-c class_name` option or the `class=class_name` attribute.

`[server_name:]printer_name`

When class equals printer, the value of `printer_name` is the name of the printer you are pausing.

`[server_name:]job_id`

When class equals job, the value of `job_id` is the unique identifier of the job that you are pausing. If `server_name` is not specified, the request is submitted to your default server, the spooler that manages your default printer that is named in the PDPRINTER environment variable.

`[server_name:]queue_name`

When class equals queue, the value of `queue_name` is the name of the queue you are pausing.

`[server_name]`

When class is server, the value of `server_name` is the name of the spooler you are pausing.

pdpause(1)

DESCRIPTION

The `pdpause` utility pauses a pending print job, a physical printer, a queue, or a spooler.

The following facts apply when using this utility:

- After successfully completing the request, the server changes the state of the object to pause.
- You can resume a paused physical printer, queue, or spooler with the `pdresume` utility.
- Although a paused physical printer, queue, or spooler does not process jobs, it can continue to accept and respond to requests such as `pdls` and `pdq`.

You cannot pause logical printers or supervisors. However, you can use the `pddisable` utility to prevent them from accepting print jobs.

Pausing a spooler:

- It does not include jobs for printing.
- The logical printers associated with the spooler continue to accept new jobs.

Pausing a physical printer:

- The printer stops printing as soon as possible, and when you resume it, it continues printing from the point at which it was paused.
- The spooler associated with the printer does not schedule new jobs while the physical printer is in the paused state.
- Even if the printer is not printing when you pause it, you must resume it before it can accept a new job.

Pausing a print job:

- The operation fails if the supervisor has begun to process the job.
- You cannot reschedule the job until you resume it.
- You cannot pause a document within the job.

Pausing a queue:

- A paused queue does not submit jobs to associated physical printers.

pdpause(1)

- The state of each logical printer associated with the queue does not change.
- The state of jobs in the paused queue does not change.

ACCESS LEVEL: Operator

ENVIRONMENT VARIABLES

PDPRINTER

Specifies your default logical printer. Also, implicitly specifies a default spooler as one that hosts your default logical printer.

EXAMPLES

1. Pause physical printer myprinter_pp to fix a paper jam. The class need not be specified because printer is the default:

```
pdpause -m "fixing jam" myprinter_pp
```

2. Pause job 123, which has not yet been scheduled, on spooler blue_sp1. Other jobs will continue to print:

```
pdpause -c job blue_sp1:123
```

3. Pause a queue. Jobs will be accepted but not sent to the printer. Use this option when you need to stop scheduling jobs for physical printers associated with a queue:

```
pdpause -c queue -m "pausing queue2" blue_sp1:q2
```

SEE ALSO

Commands: pdresume(1), pdenable(8), pddisable(8), pdls(1)

NAME

pdpr – submits a print job

SYNOPSIS

```
pdpr [-f filename] [-g ] [-n] [ copies ] [-N notification_method]
[-r requested_attributes] [-p printer_name] [-s style_name] [-t job_name] [-x
extended_attribute_string...] [-X attribute_filename...] files
```

OPTIONS

-f *filename*

Specifies a file to be printed as one document in a print job. The utility creates a document object for each file you specify with the command line, and each document becomes part of the job. Use this option when you submit a job of multiple files that require different document attributes.

If you use the -x string option or the -X file option, the equivalent command attribute is `document-filename=filename`.

-g

Omit line or column headings when using the -r option to request a list of attributes with your print command.

If you use the -x string option or the -X file option, the equivalent attribute is `headings=no`.

-n *copies*

Specify how many copies of the print job to print.

If you use the x string option or the X file option, the equivalent attribute is `job_copies=number`.

-N *notification_method*

Specifies how you want to be notified when your job has completed.

The following values are allowed:

message

pdpr(1)

The host processing the request sends a message to the system console window on your workstation, typically the `dxconsole` program. The console window must be open to view the message.

email

The host processing the request sends an e-mail message to your user account on your client host.

To use this option in an attribute file, specify the delivery-method field of the `notification-profile=profile` attribute.

`-p printer_name`

Specifies the logical printer to which you are submitting a print job.

The value for `printer_name` is the name of a specific printer. This printer takes precedence over the printer that the `PDPRINTER` environment variable specifies.

The operation fails if you omit this option and the `PDPRINTER` variable does not contain the name of a valid logical printer.

To use this option in an attribute file, specify the delivery-method field of the `notification-profile=profile` attribute.

`-r requested_attributes`

Specifies job attributes you want displayed after the submission is complete.

You can specify the following values for `requested_attributes`:

all

`pdpr` writes all of the job's attributes to standard output. You can specify the `-s` line option to cause the `pdpr` utility to format the output one attribute per line.

verbose

`pdpr` writes an expanded set of attributes to output.

brief

`pdpr` writes a subset of the verbose list to output.

none

pdpr(1)

pdpr does not write any attributes to output.

-s style_name

Format the output that you requested with the *-r requested_attributes* option.

The values you can use for *style_name* are:

column

pdpr displays requested attributes in columns. This is the default.

line

pdpr displays each attribute value on a separate line.

To use this option in an attribute file, the equivalent command attribute is *style=style_name*

-t job_name

Specify a new name for the job that you are submitting. If the job name contains spaces or punctuation characters, you must enclose it inside quotes. If you omit this option, the *job-name* attribute is set to the filename of the first document file.

To use this option in an attribute file, the equivalent command attribute is *job-name=name*

extended_attribute_string

Specifies a series of command-line *attribute type=value* pairs that pdpr processes.

You can use the assignment operator (=) to set the value of an attribute. For example, *-x document-formats-supported=PCL*. You can use all job and document R/W (Read/Write) attributes with the *-x* and the *-X* options.

You can use the following command attributes:

attributes
requested-attributes
document-filename
headings
style

pdpr(1)

Refer to Chapter 3 of the Advanced Printing Software User Guide for information about how to use the most common job and document attributes. Also refer to the attributes table in Appendix A of the Advanced Printing Software Command Reference Guide for a complete listing of all the supported object and command attributes.

Follow the syntax rules for attribute value string, in Appendix A of the Command Reference Guide when you specify your string of *attribute type=value* pairs. You can produce the same result by including the *extended attribute string* in an attribute file and identifying that file as the *attribute filename* using the `-X` option.

`-X attribute_filename`

Specifies an attribute file that *pdpr* will read. When the utility runs, it processes the attribute definitions in sequence, as if you had entered them on the command line with the `-x` option. If you do not include a path to the file, the utility uses the path specified in the `PDPATH` environment variable.

OPERANDS

The *pdpr* utility accepts zero or more document file specifications as command operands. You can also specify document files using the `-f` option. You cannot append command options beyond the command operands.

ATTRIBUTES

The Advanced Printing Software system uses object attributes to govern the behavior of jobs, documents, printers, queues, and servers. This section lists some of the more commonly used attributes you can specify as part of a print job submission.

Common Document Attributes

- content-orientation
- copy-count
- default-input-tray
- default-medium
- initial-value-document
- number-up
- modification-filter
- plex

pdpr(1)

reset-printer
sides
translation-filter

Common Job Attributes

initial-value-job
job-name
job-comment
job-copies
job-print-after
notification-profile
output-bin
job-sheets
document-sheets

For a complete description of all system attributes, refer to Appendix A of the Command Reference Guide.

DESCRIPTION

The `pdpr` utility creates a print job from document files you specify or from standard input. You submit the print job to a logical printer. The spooler associated with the logical printer validates your access privileges, creates a job object by attaching attribute data, identifies a physical printer that can support the job's requirements, and inserts the job into the printer queue. When the physical printer is available, the spooler schedules the job for printing.

Consider the following items when using this utility:

- A print job comprises one or more documents.
- When you specify files for printing in a single command line, `pdpr` creates a document object for each file you specify and a job object that describes the job. The document objects contain attributes that are specific to the printing of each document, and the job object contains attributes that apply to the entire job.
- The job acquires a unique job identifier that you can use with other utilities such as `pdlis`, `pdmmod`, and `pdrm`.
- Job attributes you specify apply to all documents in the job. You can specify them anywhere on the command line, as long as they appear before files specified as operands.

pdpr(1)

- Document attributes you specify apply to all documents specified after the attributes on the command line.
- If one document in a multidocument job fails, the operation fails.
- If you do not specify a printer, `pdpr` uses the value of the `PDPRINTER` environment variable. The operation fails if `PDPRINTER` has no value.

ACCESS LEVEL: End user

ENVIRONMENT VARIABLES

`PDPRINTER`

Specifies your default logical printer. Also, implicitly specifies a default spooler as the one that hosts your default logical printer.

`PDPATH`

List of directories (path) that are successively searched for the filename specified in the `-X attributes_filename` option.

EXAMPLES

1. Submit the file called `semantics.txt` to the default printer:

```
pdpr semantics.txt
```
2. Submit the file `quote.ps` to the logical printer called `my-printer` and print five copies:

```
pdpr -p my-printer -n 5 quote.ps
```
3. Submit the file `g1.ps` for one-sided printing and the file `g2.ps` for two-sided printing to the default printer:

```
pdpr -x "sides=1" -f g1.ps -x "sides=2" g2.ps
```

SEE ALSO

Commands: `pdls(1)`, `pdq(1)`, `pdrm(1)`, `pdresubmit(1)`, `pdmod(1)`

Others:

Advanced Printing Software Command Reference Guide

Advanced Printing Software User Guide

pdprint(1)

NAME

pdprint – Prints files with Advanced Printing Software.

SYNOPSIS

`[-a] [-d printer_name] [-e] [-h] [-n copies] [-s] [-u job_name] [print_files]...`

OPTIONS

`-a`

Causes the input file to be formatted using the `man` command.

`-d`

Specifies the destination logical printer for the submitted print job.

`-e`

Removes the file after printing it. This functionality is intended for temporary files generated by applications that do not need to persist beyond the act of printing.

`-h`

Causes `pdprint` to display a help message then exit

`-n copies`

Specifies the number of copies of the print job. The default is one.

`-s`

Submits the print job without posting the `pdprint` dialog.

`-u job_name`

Sets the name of the submitted job to *job_name*. If the job name contains blanks it must be enclosed in quotes.

DESCRIPTION

The `pdprint` utility provides a Graphical User Interface (GUI) for printing in the Advanced Printing Software environment. It replaces the `d` to `lp` program when Advanced Printing Software is installed.

pdprint(1)

The `pdprint` utility is a CDE application that allows users to easily control standard printing options such as the name of the file(s) to be printed, the name of the printer to use, whether or not to print a header page, number of copies to print, print method, and so on. The `pdprint` utility also lets users determine the status of print jobs in progress and cancel print jobs that are waiting in the queue.

For more information on the basic print system functions, see the *Advanced Printing Software Administration and Operation Guide*.

Users will normally use `pdprint` to print files by entering the name of the file(s) in the File(s) To Print field, selecting a printer from the pull down list of possible printers and then clicking on the Print button. The number of copies to print is set to 1 by default but can be easily changed by using the up/down arrows in the Copies control or by entering a number.

The status of the printer can be checked by clicking the Info... button. Print jobs can be terminated by selecting their names from the list on the Jobs tab and then selecting Cancel Job from the Selected menu.

The Info... button opens a window with information about the selected printer and its associated print objects.

The Details... button opens a window that allows users to specify options for the current job. These include the output bin and the media to print on as well as when the job will print. The OK button sets these options only for the current job.

ENVIRONMENT VARIABLES

LPDEST	Sets the default output device or destination. This can be overridden by specifying <code>-d printer_name</code> on the command line.
PDPRINTER	Similar to LPDEST but with a higher precedence. This can be overridden by specifying <code>-d printer_name</code> on the command line.
DTPRINTFILERE-MOVE	Deletes the job file(s) from the client workstation after submission.
DTPRINTSILENT	Suppresses posting of the <code>pdprint</code> window during job submission.

pdprint(1)

`DTPRINTUSERFILE-NAME` Uses the value of `DTPRINTUSERFILENAME` as the default job name for all submitted jobs. This can be overridden by specifying `-u job_name` on the command line.

SEE ALSO

`pdprintadmin(8)`, `pdprintinfo(1)`

The `pdprint` Help option on the Workspace menu or the CDE front panel.

pdprintinfo(1)

NAME

pdprintinfo – Displays printer and print job information

SYNOPSIS

/usr/pd/bin/pdprintinfo [-sl *status_lines*] [-d *printer*]

OPTIONS

-sl *status_lines*

Specify the number of lines to display in the status area located at the bottom of the pdprintinfo window.

-d *printer*

Specify the name of the printer property window to display. This option causes pdprintinfo to skip the domain view and to go directly to the Open Printer dialog.

DESCRIPTION

pdprintinfo displays the status of jobs on the selected logical printer.

Printer information can only be displayed by pdprintinfo; it cannot be modified.

For each job on the printer, pdprintinfo reports the job name, job id, job status, job owner, current position, requested printer, and assigned printer.

For each printer, pdprintinfo reports the printer name, printer status, associated spooler, printer default settings, and currently submitted jobs. End-users can use pdprintinfo to modify owned jobs. Print system operators and administrators can modify jobs on printers to which they have access rights.

ACCESS LEVEL: User

SEE ALSO

pdprint(1), pdprintadmin(8)

The pdprintinfo Help option on the Workspace menu or the front panel.

NAME

pdq – displays information about queued print jobs

SYNOPSIS

```
pdq [-f filter_expression] [-F] [-g] [-p printer_name] [-r requested_attributes]
[-s style_name] [-x extended_attribute_string...] [-X attribute_filename...]
[server_name:] [job_id [.doc_int]]
```

OPTIONS

-f *filter_expression*

Specifies an attribute query filter in the form of a logical expression that selects a subsets of jobs. The command returns requested information about only those jobs that match the filter criteria.

The default value for the *filter_expression* is `job-owner=username`

Refer to the *Advanced Printing Software Command Reference Guide* for more information about specifying attribute query filters.

If you use the `-x` string option or the `-X` file options, the equivalent command attribute is `filter=filter_expression`.

-F

Disables all attribute filtering, including any default filtering. The `-F` option takes precedence over any filter expressions you specify with the `-f` option.

-g

Displays output without column headings.

If you use the `-x` string option or the `-X` file options, the equivalent attribute is `headings=no`.

-p *printer_name*

Specifies the logical printer whose queue you want to list.

If you do not specify *printer_name*, the command uses the value of `PDPRINTER` as the default.

pdq(1)

If use you the `-x` string option or the `-X` file options, the equivalent command attribute is `printer-name-requested=printer_name`.

`-r requested_attributes`

Specify the attributes that you want displayed in an attribute report.

The following values are allowed:

`verbose` – writes an expanded set of attributes.

`brief` (default) – writes a subset of the verbose list of attributes to standard output.

`all` – writes all attributes with values. When you use this option, you should also specify the `-s` line option to prevent line wrapping.

`none` – does not write any attributes

`list of attributes` – writes the specified attributes to standard output. If you request more than one attribute, you must enclose them in quotes and separate them with a space. For example, `-r "job-owner job-name"`

If you use the `-x` string option or the `-X` file options, the equivalent command attribute is `requested-at-tributes=requested_attributes`.

`-s style_name`

Specifies how the output requested with the `-r requested_at-tributes` option is to be formatted.

The values for `style_name` are:

- `column` (default)

Displays attributes in multi-column format

- `line`

Writes each attribute on a separate line

If you use the `-x` string option or the `-X` file options, the equivalent command attribute is `style=style_name`.

`-x extended_attribute_string`

Specifies one or more `attribute_type=value` pairs.

You cannot specify object attributes with the `-x` option of the `pdq` command.

You can use the following command attributes:

pdq(1)

count-limit

filter

headings

requested-attributes

scope

style

time-limit

The syntax rules for attribute value strings are described in the Advanced Printing Software Command Reference Guide.

-X attribute_filename

Specifies an attribute file that the utility will read. When the utility runs, it processes the attribute definitions in the file at the current point, as though you had entered them with the *-x* option.

OPERANDS

The *pdq* utility supports a job or document operand, which is optional.

- *[server_name:]*

Identifies the spooler on which the jobs you want to list reside. The default spooler is the one associated with your default printer, as specified by the *PDPRINTER* environment variable.

- *job_id*

Identifies a specific job that you want *pdq* to display. If you omit this field, all jobs you have permission to view are displayed.

- *[.doc_int]*

Displays a specific document of the job whose attributes *pdq* will list. If not specified, only job attributes will be displayed.

If you do not specify an operand, *pdq* lists print jobs in the queue associated with the printer you specified or the default logical printer.

DESCRIPTION

The *pdq* utility queries a logical printer for a list of jobs that are currently in its queue and returns a list of those jobs. The list displays the jobs in the

pdq(1)

scheduled print order. The `pdq` utility writes the list of jobs to standard output. If you do not use the `-p` option to specify a printer, `pdq` lists jobs in the queue of the printer specified by the `PDPRINTER` environment variable.

ACCESS LEVEL:

- End user - End users can list only jobs they own.
- Operators and administrators - Operators and administrators can list all jobs in all queues.

For more information about which attributes are visible to end-users, refer to the server attribute `job_attributes_visible_to_all` in the *Advanced Printing Software Command Reference Guide*.

ENVIRONMENT VARIABLES

PDPRINTER

Specifies your default logical printer. Also implicitly specifies a default spooler as the one that hosts your default logical printer.

EXAMPLES

1. Display the jobs you submitted to the queue associated with the default printer:

```
pdq
```

2. Display all your jobs in the queue associated with the logical printer, myprinter:

```
pdq -p myprinter
```

3. Display the jobs you have submitted to your default printer, and show their state and when they were submitted:

```
pdq -r "job-ident job-name submission-time current-job-state"
```

4. Display all information about job 123 and its documents:

```
pdq -r all -s line -x scope=1 123
```

5. Display all pending jobs on spooler, sonny_spl belonging to user, bolitho

```
pdq -f "(job-owner==bolitho) && (cur-job-state==pending)" sonny_spl:
```

SEE ALSO

Commands: `pdpr(1)`, `pdls(1)`, `pdrm(1)`, `pdmod(1)`, `pdresubmit(1)`

pdresubmit(1)

NAME

pdresubmit – resubmit a print job to another logical printer

SYNOPSIS

pdresubmit [-c *class_name*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] *target_printer_name* *object_instance...*

OPTIONS

-c *class_name*

Specifies the class of object being submitted, queue or job. The default is job.

If you use the -x string option or the -X file option, the equivalent attribute is `class=class_name`. The values you can use for *class_name* are queue and job.

-x *extended_attribute_string*

Specifies one or more attribute type=value pairs to be used by the utility.

You cannot set object attributes with the -x option. You can use command attributes `class` and `attributes`.

The syntax rules for attribute value strings are described in the Advanced Printing Software Command Reference Guide.

-X *attribute_filename*

Specifies an attribute file for the utility to read. When the utility runs, it inserts, at the current point in the command line, the attribute data it finds in the file.

If a path to the file is not specified, `pdresubmit` searches the directory specified by the `PDPATH` environment variable.

Object attributes cannot be specified with the -X option. Command attributes that can be used are `class` and `attributes`.

pdresubmit(1)

OPERANDS

target_printer_name

This value identifies a logical printer to which the job(s) specified in the *object_instance* of the operand are to be resubmitted.

object_instance

A queue or one or more jobs.

This value depends on the value of the *-c class_name* option or the *class=class_name* attribute. If you specify the operation class as *queue*, then this operand specifies a queue. If you specify the operation class as *job*, then this operand is one or more job identifiers.

[server_name:]job_id...

When class equals *job*, this value is a unique job identifier, and the value for *server_name* is optional. You can specify one or more such job identifier operands on the command.

[server_name:]queue_name

When class equals *queue*, this value identifies a queue, and the value for *server_name* is optional.

DESCRIPTION

Use the *pdresubmit* utility to request that a job already submitted for printing (and currently in a *pending*, *held*, *paused*, or *retained* state) be resubmitted on the same spooler. The operation fails if the job, or jobs, to be resubmitted is in a *printing*, *processing*, *preprocessing*, or *completed* state. If the job or jobs have a retention period, the operation proceeds but the original retention period remains unchanged.

When all jobs in a queue are resubmitted to another logical printer, a revalidation takes place. If a job fails this process, a warning message is returned. You can use the *pdmod* utility to adjust the requirements of a failed job to meet the printer's capabilities, or the job can be resubmitted to a printer that provides the correct features.

ACCESS LEVEL:

End user: End users can resubmit only jobs they own.

pdresubmit(1)

Operators: Operators can resubmit any job in any queue.

EXAMPLES

1. Resubmit jobs 2000 and 2001 on the default spooler to the logical printer named ginger:

```
pdresubmit ginger 2000 2001
```
2. Resubmit all jobs currently pending or on hold on the queue called jose to the logical printer named luke:

```
pdresubmit -c queue luke jose
```

SEE ALSO

Commands: `pdpr(1)`, `pdls(1)`, `pdq(1)`, `pdrm(1)`, `pdmod(1)`

Others:

Advanced Printing Software Command Reference Guide

Advanced Printing Software User Guide

pdresume(1)

NAME

pdresume – resumes a paused print job, physical printer, queue, or spooler

SYNOPSIS

pdresume [-c *class_name*] [-m *message_text*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] *object_instance...*

OPTIONS

-c *class_name*

Specifies the class or type of object.

The following are allowed:

printer (physical printer only) This is the default.

job

queue

server (spooler only)

If you use the -x string option or the -X file option, the equivalent attribute is *class=class_name*.

-m *message_text*

Includes a message about the object. For example, when you resume a paused physical printer, the message might be:

-m “resuming printer1”

If you use the -x extended-attribute-string option or the -X *attribute_filename* option, the equivalent command attribute type and value are:

For physical printers, queues, and spoolers:

message=message_text

For jobs:

job-message-from-administrator=message_text

To retrieve a message of this type, use the *pdls* utility, specify the job or document, and include the option -r message.

pdresume(1)

`-x extended_attribute_string`

Specifies one or more `attribute_type=value` pairs to be used by the utility.

You cannot set object attributes with the `-x` option of the `pdresume` command. You can use the following command attributes:

attributes

class

message

Follow the syntax rules for attribute value strings listed in the *Advanced Printing Software Command Reference Guide*.

`-X attribute_filename`

Specifies an attribute file. When the utility runs, it processes the attribute definitions in the file at the current point in the command line, as though you had specified them with the `-x` option.

OPERANDS

The value you provide for the operand depends on the value given with the `-c class_name` option or the `class=class_name` attribute.

`[server_name:]printer_name`

This is the default. When class equals `printer`, the value of `printer_name` is the name of the specific physical printer that you are resuming.

`[server_name:]job_id`

When class equals `job`, the value of `job_id` is the unique identifier of the job that you are resuming. You cannot include document identifiers because you cannot resume the printing of a specific document within a job.

`[server_name:]queue_name`

When class equals `queue`, the value of `queue_name` is the name of the queue that you want to resume.

pdresume(1)

server_name

When class equals *server*, the value of *server_name* is the name of the spooler that you want to resume.

If you do not specify *server_name* in any operand, *pdresume* operates on the server that supports the printer named by the PDPRINTER environment variable.

DESCRIPTION

The *pdresume* utility resumes print jobs, physical printers, queues, and spoolers that are in the paused state.

This operation causes the job, printer, queue, or spooler to continue normal operations after being paused by an operator or system administrator.

Consider the following when using this utility:

- A job you have resumed is available for scheduling and printing.
- The state of a queue you have resumed changes from paused to ready, and the queue resumes distributing print jobs to all associated physical printers.
- You can pause and resume a spooler but not a supervisor. The state of the spooler changes to ready, and it begins distributing jobs for printing.
- You can pause and resume a physical printer but not a logical printer. The physical printer starts and resumes printing its currently assigned print job, if any, from the point where you paused it.

ACCESS LEVEL: Operator, Administrator

ENVIRONMENT VARIABLE

PDPRINTER

Specifies your default logical printer. Also, implicitly specifies a default spooler as the one that hosts your default logical printer.

EXAMPLES

1. Resume printing jobs at physical printer *samantha* and set a message that can be displayed using the *pdls* utility:

```
pdresume -m "back online" samantha
```


pdresume(1)

2. Resume queue daniel to begin submitting jobs to physical printers:

```
pdresume -c queue daniel
```

3. Resume the spooler named ginger to begin distributing jobs to physical printers:

```
pdresume -c server ginger
```

SEE ALSO

Commands: `pdpause(1)`, `pdpr(1)`, `pdq(1)`, `pdrm(1)`, `pdlis(1)`

pdrm(1)

NAME

pdrm – cancels a print job

SYNOPSIS

pdrm [-m *message_text*] [-r *retention_period*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] [*server_name:*] *job_id...*

OPTIONS

-m *message_text*

If you are an administrator, you can include a message about the job that you are removing. The equivalent command attribute is `job-message-from-administrator=message_text`.

Users can view this message by issuing the `pdl`s command, specifying the job or document, and including the option `-r message`.

-r *retention_period*

Defines the length of time a spooler should retain the removed job before deleting the job. A retained job can be resubmitted.

If you specify a retention period of zero, the job is deleted immediately. If you specify a nonzero retention period, the job is placed in the retained state for the amount of time you specify.

Specify the retention period in hours, minutes, and seconds, according to conventions in your locale. If you specify the retention period as a simple integer, it will be interpreted as minutes.

If you use the `-x` string option or the `-X` file option, the equivalent command attribute is `job-retention-period=retention_period`.

-x *extended_attribute_string*

Specifies one or more `attribute_type=value` pairs to be used by the `pdrm` utility. You cannot set job attributes with the `-x` option. You can use the following command attributes: `attributes` and `message`.

Follow the syntax rules for attribute value strings listed in the Advanced Printing Software Command Reference Guide.

pdrm(1)

-X attribute_filename

The *-X* option identifies an attribute file to be read by the utility. When the *pdrm* utility executes, the attribute definitions included in the file are processed at the current point in the command line as though they had been specified with the *-x* option.

OPERANDS

[server_name:]job_id Identifies the job as residing on the named spooler server.

job_id Identifies a job that resides on the default spooler. The default spooler is associated with the default printer, as specified by your PDPRINTER environment variable. If you do not know the *job_id* of the job you want to remove, use the *pdq* command to display a list of jobs in the printer queue.

DESCRIPTION

Use the *pdrm* utility to remove or cancel a job that was submitted for printing. If the job is currently printing, the spooler forwards the operation to the supervisor and printing is stopped as soon as possible.

The print job is retained if you specify the *-r retention_period* option in the command line, or if the job-retention-period attribute has a nonzero value. Retained jobs can be resubmitted for printing later.

ACCESS LEVEL: End user

RESTRICTIONS

The operation is valid only for jobs that reside on a spooler; it fails if the server named is a printer supervisor.

ENVIRONMENT VARIABLES

PDPRINTER

pdrm(1)

Specifies your default logical printer. Also implicitly specifies a default spooler as the one that hosts your default logical printer.

EXAMPLES

1. Remove job 2127 from the default spooler:

```
pdrm 2127
```

2. Remove and retain job 2001 for one hour before deleting it from the spooler named ginger.

```
pdrm -r 1:00:00 ginger:2001
```

SEE ALSO

pdpr(1), pddelete(8), pdq(1), pdls(1), pdmod(1), pdresubmit(1)

NAME

pdset – set print system attributes

SYNOPSIS

pdset [-c *class_name*] [-g] [-m *message_text*] [-r *requested_attributes*] [-s *style_name*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] *object_instance...*

OPTIONS

-c *class_name*

Specifies the class or type of object.

The following values are allowed:

printer (default)

queue

server

job

document

initial-value-job

initial-value-document

If you use the -x string option as the -x file option, the equivalent attribute is `class=class_name`.

-g

Omits line or column headings when requesting attributes.

To use this option in an attribute file, the equivalent command attribute is `headings=no`.

-m *message_text*

Includes a message about the print object that you are modifying. For example, when changing an attribute of a printer, you could attach a message such as the following:

-m "This printer now supports stapled jobs."

The equivalent command attribute type and value are the following:

pdset(1)

For server printer, queue, initial-value-job, initial-value-document, and document objects: `message=message_text`

For jobs: `job-message-from-administrator=message_text`.

`-r requested_attributes`

Specifies attributes that you want displayed in an attribute report. A formatted list of attribute values is written to standard output.

The following values are allowed:

`verbose` – specifies an expanded set of attributes to be written to output.

`brief` – specifies a subset of the verbose list of attributes to be written to output.

`all` – specifies all attributes with values to be written to output.

`none` – specifies that no attributes are to be written to output.

To use this option in an attribute file, the equivalent command attribute expression is `requested-attributes=requested_attributes`.

`-s style_name`

Specifies how output requested with the `-r` requested-attributes option is to be formatted.

The following values are allowed:

`column` – displays requested attributes in columns.

`line` – displays each attribute value on a separate line.

The equivalent attribute is `style=style_name`.

`-x extended_attribute_string`

Specifies one or more attribute=value pairs to be used by the utility.

Some attributes accept multiple values, while others can have only one value. You can use the `-x` option and appropriate attribute modification operators, to replace an attribute's values with new values, add new values to the existing values, remove all values, remove selected values, and reset an attribute to its default value.

You can include an operator with attribute=value pairs to indicate the type of modification to be done to the specified attribute.

The three modification operators are:

`=` (replace)

pdset(1)

When you use `attribute=value`, you set or replace the value of the named attribute. The previous value is lost.

`+=` (add value)

When you use `attribute+=value`, you add a value to the attribute. This can be used only with multivalued attributes. If you add a value that already exists, the attribute contains the same value twice.

`-=` (remove value)

When you use `attribute-=value`, you remove a value from the attribute. If the value is not present, `pdset` ignores the command. If you remove the last value for an attribute, `pdset` sets the value to the server default. If a value to be removed occurs more than once, `pdset` removes all occurrences.

`==(reset to default value)`

When you use `attribute==`, you set the attribute value to its default. Do not include a value when resetting to the default value.

All read/write attributes, except those listed as read only in the *Advanced Printing Software Command Reference Guide*, can be used with the `-x` option.

Follow the syntax rules for attribute value strings listed in the *Advanced Printing Software Command Reference Guide*.

`-X attribute_filename`

Specifies an attribute's file. When the utility runs, it inserts, at the current point in the command line, the attribute data it finds in the file.

OPERANDS

The value you supply for the operand depends on the class of the object you are modifying:

`[server_name:]job_id`

When the object class is `job`, the required value of `job_id` is the unique identifier of the job whose attributes are to be set. You need to specify the `server_name` field only if the server that contains the job is not your default spooler, the one that manages your default logical printer named in the `PDPRINTER` environment variable.

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[server_name:]job_id.doc_int

When the object class is *document*, the value of *doc_int* is the numerical position of the document within the specified job. For example, *blue_spl:116.3*, specifies the third document of job 116 on the spooler called *blue_spl*. You need to specify the *server_name* field only if the server that contains the job is not your default spooler.

[server_name:]printer_name

When the object class is *printer*, the value of *printer_name* is the name of the physical or logical printer whose attributes are to be set.

server_name

When the object class is *server*, the value of *server_name* is the name of the spooler or supervisor whose attributes are to be set.

[server_name:]queue_name

When the object class is *queue*, the value of *queue_name* is the name of the queue whose attributes are to be set. Specifying *server_name* is optional.

[server_name:]ivjob_name

When the object class is *initial-value-job*, the value of *ivjob_name* is the name of the initial-value-job object whose attributes are to be set. Specifying *server_name* is necessary if the server that maintains the object is not your default spooler.

[server_name:]ivdoc_name

When the object class is *initial-value-document*, the value of *ivdoc_name* is the name of the initial-value-document object whose attributes are to be set. Specifying *server_name* is necessary if the server that maintains the object is not your default spooler.

DESCRIPTION

The *pdset* utility sets, adds, or removes values of writable attributes of printers, queues, servers, jobs, documents, and initial-value objects in the Advanced Printing Software system. Changes you make to attribute values of an object are persistent; they remain in place even after the system is

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restarted. The specified attribute values will be set for every object you include as a command operand.

Some object attributes make reference to other objects in your configuration. To set any of the following print attributes, the new value must refer to an object that already exists:

associated-queue

printer-initial-value-job

printer-initial-value-document

ACCESS LEVELS:

- Administrator - An administrator can set attribute values of any object in the system.
- Operator - An operator can set attributes of any job and values of the xxx-ready attributes for physical printers.
- End user - An end user can set only attribute values of owned jobs.

EXAMPLES

1. Connect physical printer ginney to queue les.

```
pdset -c printer -x associated-queue=les ginney
```
2. Add iso-a4-white media to the media-supported attribute for the printer named samantha. The operand is assumed to be a printer name because the default class for the `pdset` command is `printer`.

```
pdset -x "media-supported+=iso-a4-white" samantha
```
3. Release job 21, which was placed in the held state when it was submitted for printing.

```
pdset -c job -x "job-hold=no" 21
```

SEE ALSO

Commands: `pdcreate(8)`, `pddelete(8)`, `pdmod(1)`, `pdpr(1)`, `pdq(1)`, `pdrm(1)`, `pdls(1)`

3

Administrative Commands

pdclean(8)

NAME

pdclean – removes all print jobs from a queue or spooler

SYNOPSIS

```
pdclean [-c class_name] [-m message_text] [-x extended_attribute_string...]  
[-X attribute_filename...] [server_name:] [queue_name]
```

OPTIONS

<i>-c class_name</i>	Specifies the class or type of object from which you are removing jobs. The following values are allowed: server or queue.
<i>-m message_text</i>	Includes a message about the specified object.
<i>-x extended_attribute_string_</i>	Specifies one or more attribute=value pairs to be used by the utility. You cannot set object attributes with the <i>-x</i> option. You can use the following command line attributes: attributes, class, message.
<i>-X attribute_filename</i>	Specifies an attribute file for the utility to read. When the utility runs, it processes the attribute data at the current point in the command line, as though you had specified it with the <i>-x</i> option.

OPERANDS

The value you supply as an operand depends on the object class given with the *-c class_name* option or the *class=class_name* command attribute.

spooler_name When the class specified is server, *server_name* is the name of the spooler to be cleaned.

[server_name:]queue_name When the class specified is queue, the value of *queue_name* is the name of the queue to be cleaned.

DESCRIPTION

The `pdclean` utility deletes all of the jobs on the spooler or queue you specify. Using `pdclean` is similar to entering a `pdl`s command on the queue or spooler, followed by a `pddelete` of all the jobs found. The `pdclean` command deletes jobs that are in a retained, completed, currently processing, or printing state.

The following apply when using this utility:

Before using `pdclean`, you must disable the queue or spooler. You cannot enable the queue or spooler during the `pdclean` operation.

The `pdclean` command is an asynchronous command. It returns control to your shell before the clean operation is complete.

You must back up or resubmit to another queue or spooler any jobs that you do not want to delete. If resubmitting jobs is not possible, notify all users to retain a copy of their job.

In some cases it can be too late to delete a job that is already printing on the associated physical printer.

You cannot use `pdclean` delete jobs from a supervisor.

Deleting jobs from a spooler:

- If the spooler has a `notification-profile` attribute, it sends a "clean complete" event to notify recipients when the clean operation is complete.

Deleting jobs from a queue:

- The `pdclean` command aborts all jobs in the queue that are currently printing.
- If the queue has a `notification-profile` attribute, `pdclean` sends a "clean complete" event to notify recipients when the clean operation is complete.

ACCESS LEVEL: Operator

EXAMPLES

1. Remove all jobs from the spooler named `bobspl`:

```
pdclean -c server bob_spl
```

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2. Remove all jobs from the queue named `central_q` on the spooler named `blue_spl`. The command removes all jobs, including those in the retained state.

```
pdclean -c queue blue_spl:central_q
```

FILES

`/var/pd/odb` object database directories

`/var/spool/pd` spool directories

SEE ALSO

Commands: `pdcreate(8)`, `pddisable(8)`, `pdenable(8)`, `pdls(1)`, `pdset(1)`, `pdsplr(8)`, `pdspvlpr(8)`

NAME

pdcreate – creates a printer, queue, or initial-value object

SYNOPSIS

```
pdcreate [-c class_name] [-m message_text] [-g] [-r requested_attributes]  
[-s style_name] [-x extended_attribute_string...] [-X attribute_filename  
...] object_instance...
```

OPTIONS

-c *class_name*

Specifies the class or type of object you are creating.

You can use the following values for *class_name*:

- printer (default)
- queue
- initial-value-job
- initial-value-document

If you use the **-x** string option or the **-X** file option, the equivalent attribute is `class_type=class_name`.

-g

Omits line or column headings when requesting attributes with the **-r** option.

If you use the **-x** string option or the **-X** file option, the equivalent attribute is `heading=no`.

-m *message_text*

Includes a message about the object that you are creating. For example, if you are creating a queue, the message might be:

-m “blue_q will soon be accepting jobs.”

-r *requested_attributes*

Specifies attributes to write to standard output.

You can use the following values for *requested_attributes*:

- all - Writes all object attributes to output.

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verbose - Writes an expanded set of attributes to output.
brief - Writes a subset of the verbose list attributes to output.
none (default) - Does not write any attributes to output.

`-s style_name`

Specifies how output requested with the `-r` option is to be formatted.

You can use the following values for `style_name`:

column (default) - Displays the requested attributes in columns.
line - Displays each attribute value on a separate line.

To use the `-x` string option or the `-x` file option, the comparable attribute value is `style=style_name`.

`-x extended_attributes_string`

Specifies one or more `attribute_type=value` pairs to be used by the utility.

You can use all read/write object attributes. Some attributes, such as printer-name, become read only after you initially set them.

You can use the following command-line attributes:

requested-attributes
class
copy-from
message
headings
style

Follow the syntax rules for attribute value strings listed in the *Advanced Printing Software Command Reference Guide*.

`-X attribute_filename`

Identifies an attribute file that the utility reads. When the utility runs, it processes at the current point in the command line as though you had specified it with the `-x` option.

An attribute file is a file that contains `attribute type=value` pairs. When creating printers, you can specify a printer attribute file (PAF) to set attributes to values appropriate for the model printer you are installing.

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If you do not include the path, the utility uses the path in the PDPATH environment variable. The path for the printer attribute files is `/usr/pd/share/cap`.

You can specify any object attribute with the utility, as long as it is valid for the object class.

You can also use the following command attributes:

- requested-attributes
- class
- message
- headings
- style

OPERANDS

The value you supply as the operand depends on the value of the `-c` *class_name* option or the `class=class_name` attribute.

If you omit the `[server-name:]` portion of the operand, the `pdcreate` utility performs the request on the default server, the spooler that supports the printer named in the PDPRINTER environment variable.

`[server_name:]printer_name`

When the object class is printer, the value of *printer_name* specifies the name of a new printer object.

- If you are creating a logical printer and you intend the server to be the default spooler, the value for *server_name* is optional. Otherwise, specify the name of a spooler in the *server_name* argument.
- If you are creating a physical printer object, you should specify the name of a running supervisor process as the *server_name* argument. An entry for the new printer, whether logical or physical, appears in the local name file.

`[server_name:]queue_name`

When the object class is queue, the value of *queue_name* is the name of the queue you are creating, and the value for *server_name* is optional.

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[server_name:]*ivjob_name*

When the object class is initial-value-job, the value of *ivjob_name* is the name of the initial-value-job object you are creating, and the value for *server_name* is optional. The object can be used to provide default attributes for jobs submitted to a logical printer. Users can submit jobs that specify an initial-value-job object for attribute defaults.

[server_name:]*ivdoc_name*

When the object class is initial-value-document, the value of *ivdoc_name* is the name of a new initial-value-document object, and the value for *server_name* is optional. The object can be used to provide default attributes for the documents that pass through an associated logical printer. Users can specify an initial-value-document object for document attribute defaults when they submit print jobs.

DESCRIPTION

The `pdcreate` utility creates logical printers, physical printers, queues, initial-value-job objects, and initial-value-document objects in the Advanced Printing Software system.

Upon receiving the create request, the server creates the new object in a permanent server database that remains intact across server restarts. The server stores new printer names and queue names in the local name file.

For Network Information Server (NIS), you must manually add new printer and queue objects to the NIS name space database (`printers.conf.byname`) and communicate this change to all NIS servers operating in the same domain.

You can set the values of attributes in the `pdcreate` request.

The initial state of the new object is disabled. Use the `pdenable` utility to enable the new object.

Creating a physical printer:

- To create a physical printer object for a supported printer model, use an appropriate Printer Attribute File from the `/usr/pd/share/cap` directory. This will set many of the printer attributes that are appropriate for the printer model and will enable the various device control sequences that enable printer features and options.

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- A supervisor must be available that can support the new printer; you must specify the attribute `printer-model` in the command line.
- The supervisor automatically updates its `physical-printers-supported` attribute to acknowledge the new printer.
- The new printer appears within a supervisor, and its initial state is disabled (`enabled=no`).
- You can include the `copy-from` attribute in the command line to quickly copy an existing physical printer object to make a new one on the same supervisor. All existing attributes and values, including the `printer-address` and `associated-queue` attributes, are duplicated in the new physical printer object. Remember to use the `-x` option or the `pdset` command to assign new values to attributes that are specific to the new printer.
- If you include the `associated-queue` attribute in the command line, the spooler that manages the named queue updates its `queue-mapping` attributes.

Creating a queue:

- The new queue appears in the default spooler if you do not specify a spooler name in the operand.
- The spooler automatically updates its `queues-supported` attribute to acknowledge the new queue.
- If you include the `copy-from` attribute, attribute values for the new queue are taken from the attribute values of the queue you copied. The queue you copied and the new queue must reside on the same spooler.
- The initial state of the new queue is disabled, and it does not accept new jobs. You must enable the queue using the `pdenable` command so that it can begin accepting jobs.

Creating an initial-value-job object

- The new initial-value-job object appears in the default spooler if you do not specify a spooler name in the command operand.
- Only logical printers use initial-value-job objects.
- If you include the `copy-from` attribute, attribute values for the new initial-value-job print object are taken from the attribute values of the initial-value-job object you copied. The new initial-value-job print object and the copied one must reside on the same spooler.

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- After you create the new initial-value-job print object, you can use the `pdset` command to associate it with a logical printer by setting the printer's `printer-initial-value-job` attribute.

Creating an initial-value-document object

- The new initial-value-document print object appears in the default spooler if you do not specify a spooler name in the command operand.
- Only logical printers use initial-value-document objects.
- If you include the `copy-from` attribute, the attribute values for the new initial-value-document object are the attribute values of the initial-value-document object you copied. The initial-value-document object you copied and the new initial-value-document must reside on the same spooler.
- After you create the new initial-value-document object, you can use the `pdset` command to associate it with a logical printer, using the printer's `printer-initial-value-document` attribute.

EXAMPLES

1. Create a queue on spooler `big_spl` and name it `xps_q`:

```
pdcreate -c queue big_spl:xps_q
```

2. Create a physical printer, `xps_pp`, on the supervisor, `big_sup`. Use a supplied printer attribute file for the Xerox model 4517 PostScript printer. Associate the physical printer with the queue created in example 1. Specify the printer's network address, job separator sheets that are supported and ready, and the media that is supported and ready.

```
pdcreate -c printer -X /usr/pd/share/cap/Xerox_4517_Level2PS.paf \  
-x printer-address=myprinter.xyz.com \  
-x associated-queue=xps_q \  
-x "job-sheets-supported=none job-copy-start job-copy-wrap" \  
-x "job-sheets-ready=none job-copy-start job-copy-wrap" \  
-x "media-supported=iso-a4-white a-white" \  
-x "media-ready=a-white" \  
big_sup:xps_pp
```

3. Create a logical printer named `dnghat` on spooler `big_spl`. Associate it with the queue `xps_q` to make a complete working printer with logical printer, physical printer, and queue objects tied together. Because printer is the default object class for `pdcreate`, the class need not be specified. Like the physical printer created in example 2, the media that this printer supports is `iso-a4-white` and `a-white`.

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```
pdcreate -x "media-supported=iso-a4-white a-white \  
-x associated-queue=xps_q big_spl:dngbat
```

4. Create an initial-value-job object for printer dngbat that specifies job-start separator pages.

```
pdcreate -c i-v-j -x job-sheets=job-copy-start \  
big_spl:dngbat_ivj
```

FILES

/var/pd/odb

server object database directory

/usr/pd/scripts/Makefile.printers

pushes printer name map to NIS database

/etc/printers.conf

local file name

/usr/pd/share/cap/*.paf

printer attribute files

SEE ALSO

Commands: pdsplr(8), pdspvr(8), pdspvlpr(8), pddelete(8), pdset(1),
pdls(1), pdenable(8), pddisable(8)

pddelete(8)

NAME

pddelete – deletes a print object

SYNOPSIS

pddelete [-c *class_name*] [-m *message_text*] [-x *extended_attribute_string...*]
[-X *attribute_filename...*] *object_instance...*

OPTIONS

-c *class_name*

Specifies the class, or type of the object.

The values are:

printer (default)

job

queue

initial-value-document

initial-value-job

server

If you use the -x string option or the -X file option, the equivalent attribute is: `class-type=class_name`.

-m *message_text*

Includes a message about the object. For example, when a printer is to be deleted, the message attached to the printer might be:

-m "Printer1 no longer available."

In most cases, it is not meaningful to store a message on an object being deleted, unless you expect the deletion process to take a significant amount of time.

If you use the -x *extended_attributes_string* option or the -X *attribute_filename* option in the pddelete command, the equivalent command attribute type and value are the following:

- For printers, queues, servers, initial value jobs, and initial value document: `message=message_text`

For jobs: `job-message-from-administrator=message_text`

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-x extended attribute string

Specifies one or more `attribute_type=value` pairs to be used by the utility.

-X extended filename

Specifies an attribute file to be read by the utility. When the utility runs, it processes the attribute data at the current point in the command line as though it had been specified with the `-x` option.

Object attributes cannot be specified in the `-X` option of the `pdddelete` utility. Refer to the `-x` section for a list of the command attributes that can be used.

OPERANDS

The value of the operand depends on the value of the `-c class_name` options or the `class=class_nameattribute`.

Before you delete the a server object, consider using the `pdlis` command to produce a report about every object associated with it. By documenting your object database contents and the relationship between objects, you can simplify the task of creating the server again.

If `[server_name:]` is omitted in any operand, the `pdddelete` utility issues the request to the spooler that supports the printer named in the `PDPRINTER` environment variable.

[server_name:]printer_name

When class is printer, the value of *printer_name* specifies the name of the printer to be deleted. The value for *server_name* is optional. The printer to be deleted can be a logical or a physical printer.

server_name

When class is server, the value of *server_name* is the name of the server to be deleted. The server to be deleted can be a supervisor or a spooler.

[server_name:]job_id

When class is job, the value of *job_id* is the unique identifier that points to the job to be deleted.

[server_name:]queue_name

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When class is `queue`, the value of *queue_name* is the name of the queue to be deleted.

```
[server_name:]ivjob_name
```

When class is `initial-value-job`, the value of *ivjob_name* is the name of the initial-value-job object to be deleted.

```
[server_name:]ivdoc_name
```

When class equals `initial-value-document`, the value of *ivdoc* is the name of the initial-value-document object to be deleted.

DESCRIPTION

Use the `pdelete` utility to delete a printer, job, queue, document object, or server.

The following items should be considered when using this utility:

- When multiple objects are specified, they must all be of the same class.
- The deleted object is removed from the object database of its associated server.
- The object entry is automatically removed from the name space, except in the NIS environment where the administrator will need to manually remove the object from the name service database and update the NIS servers operating in that domain. The `Makefile.printers` file is supplied with Advanced Printing Software and can be configured to update the printer configuration map in an NIS environment.

Deleting a logical printer:

- The printer must be disabled before it can be deleted. See `pddisable`.
- The logical printer entry is removed from the associated physical printers' `printer-associated-printers` attributes.
- The spooler removes the printer's entry from the local name file.
- The logical-printers-supported attributes for the associated server and queue are updated.

Deleting a physical printer:

- The printer must be disabled and all currently active jobs must be deleted. See `pddisable` and `pdclean`.

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- The supervisor removes the printer's entry from the local name file.
-
- The physical-printers-supported attributes for the supervisor, spooler, and queue are updated.
- The printers-ready and printer-associated-printers attributes for the logical printer are updated.
- If the specified printer is the only physical printer associated with a queue, the spooler stops scheduling jobs in that queue until it is associated with another physical printer.

Deleting a spooler:

- All jobs currently on the spooler must be deleted and then it must be disabled. See `pddisable` and `pdclean`.
- All associated server objects, queues, logical printers, initial-value-job objects, initial-value-document objects, and the spooler server object itself are deleted from the server database.
- The supervisor sets the associated-queue and printer-associated attributes to empty on all physical printers associated with the spooler.
- The spooler removes its name entry from the local name file.
- The spooler deletes its database files.
- The spooler exits.

Deleting a supervisor:

- All jobs currently in the supervisor must be deleted and then it must be disabled. See `pddisable`.
- The associated spooler removes all physical printers from mapping attributes to update the affected queues and logical printers.
- All associated physical printers are deleted.
- All dynamic data files created and maintained by the spooler, such as the temporary job data file and object data files, are deleted from the server database.
- The supervisor removes its name entry from the local name file.
- The supervisor deletes its database files.
- The supervisor exits.

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Deleting a job:

- The specified job, and all documents contained in the job, are deleted, regardless of the job's state.
- The specified job is canceled if it was already delivered to the supervisor and the job stops printing as soon as possible.
- The value of the job-retention-period attribute is ignored. This differs from `pdrm`, which honors the value of this attribute.
- The job is removed from the system.

Deleting a queue:

- All jobs must be removed from the queue and the queue must be disabled. See `pdclean` and `pddisable`.
- The spooler clears the attributes `printer-associated-printers` and `printers-ready` of any associated logical printers.
- The supervisor clears the `associated-queue` attribute for physical printers associated with the queue being deleted.
- The spooler disables all associated logical printers.
- The supervisor disables the associated physical printers, and clears the `printers-ready` attribute.
- The spooler removes the queue from the `queues-supported` attribute of the associated spooler.
- The spooler removes the queue's name entry from the local name file.

Deleting an initial-value-job object:

- The object is deleted from the default spooler if a spooler name is not specified in the object instance.
- Any logical printers associated with the object must be disabled first.
- The reference to the object is not removed from the `printer-initial-value-job` attribute on the logical printers.

Deleting an initial-value-document object:

- The object is deleted from the default spooler if a spooler name is not specified in the object instance.
- Any logical printers associated with the object must be disabled first.

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- The reference to the object is not removed from the printer-initial-value-document attribute on the logical printers.

EXAMPLES

1. Delete the printer named `sams_printer`. Notice the `-c class_name` option is not needed because the default class is `printer`.

```
pddelete sams_printer
```

2. Delete the initial-value-job object `ivj1` from spooler `big_spl`.

```
pddelete -c initial-value-job big_spl:ivj1
```

3. Delete the queue called `central_q` from the default spooler.

```
pddelete -c queue central_q
```

FILES

`/var/pd/odb` – object database directories

`/var/yp/Makefile.printers` – pushes printer name map in NIS environment

`/etc/printer.conf` – local name file

SEE ALSO

`pdsplr(8)`, `pdspvr(8)`, `pdspvlpr(8)`, `pdcreate(8)`, `pdset(1)`, `pdls(1)`, `pdenable(8)`, `pddisable(8)`, `pdrm(1)`, `pdclean(8)`

pddisable(8)

NAME

pddisable – disable a printer, server, or queue

SYNOPSIS

pddisable [-c *class_name*] [-m *message_text*] [-x
extended_attribute_string...] [-X *attribute_filename...*] *object_instance...*

OPTIONS

-c *class_name*

Specifies the class or type of object. The following values are allowed:
printer, server, and queue.

The default class is printer.

If you use the -x string option or the -X file option, the equivalent
attribute is: *class_type=class_name*

-m *message_text*

Includes a message about the specified object.

-x *extended_attribute_string*

Specifies one or more *attribute_type=value* pairs to be used by the
utility.

You can not specify object attributes with this command. You can
specify the client attributes *attributes*, *class*, and *message*.

-X *attributes_filename*

Specifies an attribute file to be read by the utility. When the utility
runs, it inserts, at the current point in the command line, the attribute
data it finds in the file.

You can not specify object attributes with this command. You can
specify the client attributes *attributes*, *class*, and *message*.

OPERANDS

The value you specify as the operand depends on the value of *class_name*.

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`[server_name:]printer` When the object class is `printer`, the value of `printer_name` specifies the name of the logical or physical printer to be disabled. The value for `server_name` is optional.

When you disable a logical printer, new print job requests are not accepted and the name of the printer is removed from the `logical-printer-ready` attribute for the associated queue and spooler.

When you disable a physical printer, the printer will not be available to print new jobs; however, any jobs currently printing or processing at the printer are completed. The name of the printer is removed from the `physical-printers-ready` attribute on the supervisor. If a queue is associated with the printer, the `physical-printers-ready` attributes for the queue and spooler are also updated.

`[server_name:]queue` When the object class is `queue`, the value of `queue_name` is the name of the queue to be disabled. The value of `server_name` is optional.

The printer-state of associated logical printers is not changed.

Issuing a `pdpr` command for any logical printer associated with the queue returns an error.

`server_name` When the object class is `server`, the value of `server_name` is the name of the server to be disabled.

When the server is a spooler, all new jobs will be rejected but previously submitted jobs will be scheduled and delivered to physical printers.

When the server is a supervisor, all new jobs will be rejected but jobs already being processed by the supervisor will continue to completion.

pddisable(8)

DESCRIPTION

Use the `pddisable` utility to disable a supervisor or spooler server, a physical or logical printer, or a queue. Until the object is once again enabled, print jobs submitted by the `pdpr` or `pdresubmit` utility will not be accepted.

The disabled server, queue, or printer object will continue to respond to other command-line operations.

ACCESS LEVEL: Operator

EXAMPLES

1. Disable printer1 and printer2.

```
pddisable printer1 printer2
```

2. Disable the spooler `blue_spl` and post a message that can be retrieved using the `pdls` utility.

```
pddisable -c server -m "No more printing allowed" blue_spl
```

3. Disable the supervisor `blue_sup` and post a message that can be retrieved using the `pdls` utility.

```
pddisable -c server -m "Reconfiguring physical printer" blue_sup
```

You must specify *server-name* if the printer or queue is not represented in the name space.

SEE ALSO

Commands: `pdenable(8)`, `pdpause(1)`, `pdresume(1)`, `pdpr(1)`, `pdls(1)`, `pdresubmit(1)`

pdenable(8)

NAME

pdenable – enables a printer, server, or queue

SYNOPSIS

```
pdenable [-c class_name] [-m message_text] [-x extended_attribute_string...]  
[-X attribute_filename...] object_instance...
```

OPTIONS

-c *class_name*

Specifies the class or type of object. The values allowed are printer, server, and queue.

If you use the -x string option or the -X file option, the equivalent attribute is:

```
class_type=class_name
```

-m *message_text*

Includes a message about the specified object.

-x *extended_attribute_string*

Specifies one or more attribute_type=value pairs to be used by the utility.

You cannot specify object attributes in the -x option. Command attributes that can be used are attributes, class, and message.

-X *attribute_filename*

Specifies an attribute file to be read by the utility. When the utility executes, it processes the attribute data included in the file at the current point in the command line.

OPERANDS

The value you specify as the operand depends on the value of *class_name*.

```
[server_name:]printer_name
```

When class is printer, the value of *printer_name* specifies the name of the logical or physical printer to be enabled.

pdenable(8)

[server_name:]queue_name

When class is queue, the value of the *queue_name* is the name of the queue to be enabled.

server_name

When class is server, the *server_name* is the name of the spooler or supervisor process to be enabled.

You must specify the *server_name* if the printer or queue is not represented in the name space.

DESCRIPTION

Use the `pdenable` utility to enable a physical or logical printer, supervisor or spooler server, or a queue. When enabled, these objects can accept jobs for printing.

Enabling a logical printer:

- The queue named in the `associated-queue` attribute must already exist.
- The printer is added to the `logical-printer-ready` attribute for the associated queue and spooler.
- It is added to the `printer-ready` attribute of all associated physical printers.

Enabling a physical printer:

- The queue named in the `associated-queue` attribute must already exist. The spooler that supports this queue must be running for the operation to succeed.
- The printer is added to the supervisor's `physical_printers_ready` attribute.
- The printer is added to the `physical-printers-ready` attribute of the associated queue and spooler.
- When the enabled object is a spooler, it begins to accept jobs on its logical printers.

When the enabled object is a supervisor, it begins to accept jobs on behalf of its physical printers.

pdenable(8)

Before enabling the queue, the spooler makes sure that the queue attribute `logical-printers-supported` contains logical printers that already exist, and the queue `physical-printers-supported` attribute contains physical printers that already exist. If both cases are true, the spooler enables the queue and the queue's associated logical printers begin to accept jobs.

ACCESS LEVEL: Operator

EXAMPLES

1. Enable the printer named `printer1` on the default server.
2. Enable the server called `blue_spl` with a message included that can be retrieved by the `pdls` utility.

```
pdenable printer1
```

```
pdenable -c server -x message="Ready to go" blue_spl
```

SEE ALSO

Commands: `pddisable(8)`, `pdpause(1)`, `pdresume(1)`, `pdls(1)`

pdldappw(8)

NAME

pdldappw – sets LDAP username and password for use by Advanced Printing Software

SYNOPSIS

pdldappw [-f] [-v]

OPTIONS

-f

Forces the username and password to be stored, even if an LDAP server cannot be accessed.

-v

Verbose mode, prints more detailed diagnostics.

DESCRIPTION

The `pdldappw` command stores the username and password to be used by Advanced Printing Software spoolers and supervisors to access an LDAP server. The `pdldappw` command must be run by an administrator on the machines where the servers are run, so the information can be supplied to the servers that the spoolers and supervisors reside on.

Only the root user is allowed to run `pdldappw`. The `apx.conf` file must be created before `pdldappw` is run to identify which LDAP server to use.

In normal operation, `pdldappw` will test the username and password on the LDAP server defined in the `pax.conf` file. It will store only the username and password for later use if they can be successfully used on the current LDAP database. Use the `-f` option to force the username and password to be stored if the LDAP server test fails.

Later, when an Advanced Printing Software server attempts to update the LDAP server and the username and password are valid, the updates will occur as desired. If the username and password are unavailable or invalid, the requested LDAP operation will fail and a message will be entered in the print log file requesting that `pdldappw` be run to set the LDAP password.

ACCESS LEVEL: Administrator (root user)

pdldappw(8)

EXAMPLES

Enter the LDAP username and password to be used by the Advanced Printing Software servers:

```
root> pdldappw
Contents of configuration file /var/pd/config/apx.conf:
name_services = ldap file
LDAP_paths = o=mygroup
LDAP_hosts = myhost.mycompany.com(389)
LDAP username: LDAP Printmanager
LDAP password
```

Enter the password a second time to verify it.

SEE ALSO

Commands: `pdpr(1)`, `pdls(1)`, `pdrm(1)`, `pdresubmit(1)`, `pdmod(1)`

See your LDAP server documentation for information on how to define and maintain the username and password.

pdmakedb(8)

NAME

pdmakedb – creates print system server database

SYNOPSIS

pdmakedb [-A *access_control_list*] [-D *source_ODB_directory*] [-d *ODB_directory*] [-h] [-n *server_name*] [-O *source_OID_directory*] [-R *server_runtime_directory*] [-r *authentication_type*] [-s *spool_directory*] [-t *server_type*] [-v]

OPTIONS

-A *access_control_list*

Creates a server access-control-list attribute with the value that the access-control-list parameter specifies.

The format of the access-control-list parameter is:

{*name*[*name-type*]}

where:

name and *name-type* are valid values for access-control-list as described in the *Advanced Printing Software System Administration and Operation Guide*.

The -A option default for name-type is group. The -A option does not include the privilege-level component of access-control-list because the option itself specifies the privilege level as administrator.

If you do not specify the -A option, the utility creates a default ACL with two values:

1. {name-type=users privilege-level=end-user}
2. {name=sysadmin; name-type=group privilege-level=administrator}

When you create a server, the server sets the two values for its ACL . If the domain does not include a group with the name sysadmin, the local-root user must set the server's ACL to the locally correct value.

The -A option specifies the initial administrator of the server object. You can add other values for administrators as well as operators and users after the server is running and responding to client requests. The local-root user can always act as a print system administrator.

pdmakedb(8)

-D *source_ODB_directory*

Specifies the location of a source object database template.

The installation procedure installs the object database template. It serves as the template to create an object database. If an ODB source does not exist in the location that the *source_ODB_directory* specifies, or if the database is not empty, pdmakedb displays an error message and exits.

If you do not specify the **-D** option, the *source_ODB_directory* name defaults to `/usr/pd/share/odb`.

-d *destination_ODB_directory*

Specifies the location for object database. The object database is a directory that contains several data files. Conceptually, you can think of the database as a single entity.

The pdmakedb utility creates the object database in the directory you specify with the **-d** option. The name of the database depends on the **-n** option.

If you do not specify the **-d** option, the utility creates the directory for the object database files in the default directory, `/var/pd/odb`.

-h

Displays a help message.

If you specify the **-h** option, pdmakedb displays the help message only and does not do anything else, even if you have specified other options.

-n *server_name*

Specifies the name of the database.

This name will become the name of the server. The name must be a valid UNIX file name.

If you do not specify the **-n** option, the utility uses a default name. The default name is derived from the name of the host on which the pdmakedb utility is running and on whether the database type is a supervisor database or a spooler database. The format for the default name is `<hostname>_spl` for spoolers and `<hostname>_sup` for supervisors.

pdmakedb(8)

If you use the `pdmakedb` option to create a spooler database on host `achilles`, and you do not specify the `-n` option, the database name is `achilles_spl`. If you create a supervisor database, the name is `achilles_sup`. Use the `-t` option to determine whether the server is a spooler or a supervisor database.

If the database specified with the `-n` option already exists, or if you do not specify a server name and a server with the default name already exists, `pdmakedb` displays an error message and exits.

`-O source_OID_directory`

Specifies the location of the OID database.

The utility and the servers use the Object Identifier Database (OID) to validate the characteristics of object attributes. You can specify a pathname that references a valid OID for source-OID-directory.

If you do not specify the `-O` option, the `source_OID_directory` pathname defaults to `/usr/pd/share/oid`.

`-R server_runtime_directory`

Specifies the location of the server's runtime directory.

If you do not specify the `-R` option, the runtime directory defaults to `/var/spool/pd/server_name`.

`-r authenticate_type`

Specifies the RPC authentication type the server will use.

The values for `authentication_type` are `NONE` and `SYS`. The default is `SYS`.

`-s spool_directory`

Specifies where the server stores documents that it is going to print.

You can specify any valid directory pathname for `spool_directory`. The directory to which `spool_directory` points does not have to exist at the time you run `pdmakedb`. The server creates the directory (if possible) when it starts, although the server does not attempt to create any parent directories, if they do not exist.

If you do not specify the `-s` option, the utility creates the default directory `/var/spool/pd/server_name`, where `server_name` is the name that you specify with the `-n` option.

pdmakedb(8)

`-t server_type`

Specifies the type of object database to create: a spooler database or a supervisor database.

Each type of database contains objects that the other type cannot contain. For example, only spooler databases contain logical printers and queues; only supervisor databases contain physical printers.

You must create an object database of the appropriate type for the type of server that will use the database. The values for `server-type` are `SPL` for spooler and `SUP` for supervisor. The default is `SPL`.

`-v`

Displays informational messages during validation of command-line attributes.

For example, if you specify the `-A`, `-r`, and `-v` options on the command line, the utility displays the following messages:

```
Validating requested server attributes
Checking attribute:  access-control-list
Checking attribute:  cfg-rpc-auth-type
All requested server attributes are valid
```

The `pdmakedb` utility also displays the values of all the server attributes, after `pdmakedb` has finished creating the object database. For example:

```
Current server attributes are:
achilles_spl: server-state = ready
achilles_spl: server-internal-state = 2
achilles_spl: object-classes-supported = server
achilles_spl: enabled = FALSE
achilles_spl: conformance-levels-supported = level-1
                                           level-1M
                                           level-2
                                           level-2M
achilles_spl: cfg-src-odb-path = /usr/pd/share/odb
achilles_spl: cfg-src-oid-path = /usr/pd/share/oid
achilles_spl: cfg-server-runtime-dir = /var/spool/pd/achilles_spl
achilles_spl: cfg-acct-log-file-path = /var/pd/acct/achilles_spl:
achilles_spl: access-control-list = administrator:sysadmin
achilles_spl: cfg-rpc-auth-type = SYS
achilles_spl: cfg-max-log-backups = 4
achilles_spl: cfg-days-to-keep-acct-logs = 3
achilles_spl: cfg-safe-size-for-acct-logs = 1000000
achilles_spl: cfg-time-for-new-acct-log = 02:07:00
```

If you do not specify the `-v` option, `pdmakedb` only displays error messages.

pdmakedb(8)

DESCRIPTION

The `pdmakedb` utility creates an object database for an Advanced Printing Software server. You must create an object database before starting a spooler or supervisor server for the first time.

The `pdmakedb` utility creates an object database that contains a single server object. It adds default server attributes plus user-specified attributes to the server object when it creates the database.

You can use `pdmakedb` to create a new object database only. The utility displays an error message and exits if the database already exists.

ACCESS LEVEL: Administrator

FILES

```
/usr/pd/share/oid
    default OID database

/usr/pd/share/odb
    source object database template

/var/pd/odb
    default object database template directory

/var/spool/pd/server_name
    default spool directory
```

EXAMPLES

Create a spooler database named `achilles_spl`. The initial server access-control-list will allow all members of the operator group to serve as print system administrator.

```
pdmakedb -v -n achilles_spl
-A '{operator}'
-t SPL
```


pdmakedb(8)

SEE ALSO

Commands: `pdmakedb(8)`, `pdmoddb(8)`, `pdshowdb(8)`, `pdsplr(8)`, `pdspvr(8)`,
`pdspvlpr(8)`

pdmoddb(8)

NAME

pdmoddb – modifies a print system server database

SYNOPSIS

pdmoddb [-A *access_control_list*] [-d *ODB_directory*] [-h] -n *server_name*
[-O *OID_directory*] [-R *server_runtime_directory*] [-r *authentication_type*] [-s
spool_directory] [-v]

OPTIONS

-A *access_control_list*

Modifies a server access-control-list attribute with the value that the access-control-list parameter specifies.

The format of the access-control-list parameter is:

{name [name-type]}

where:

name and name-type are valid values for access-control-list in the *Advanced Printing Software Administration and Operation Guide*.

The default for name-type is group. The -A option does not include the privilege-level component of access-control-list because the option itself specifies the privilege level as administrator.

The -A option specifies the initial administrator of the server object. You can add other values for administrators as well as operators and users after the server is running.

-d *ODB_directory*

Specifies the path of the object database directory.

The spooler and supervisor processes use an object database (ODB) to store information about printers and print jobs in your configuration. The object database is a directory that contains several data files. Conceptually, you can think of the database as a single entity. Specify the ODB path with the -d option so that the pdmoddb utility can find your object database. Your user ID must have permission to write to the ODB path. If the directory does not exist, or you do not have write permission, the utility displays an error message and exits.

pdmmodb(8)

If you do not specify the `-d` option, the utility modifies the named object database in the default directory, `/var/pd/odb`.

`-h`

Displays a help message.

If you specify the `-h` option, `pdmmodb` displays the help message only and does not do anything else, even if you have specified other options.

`-n server_name`

Specifies the name of the object database you want to modify.

`-O OID_directory`

Modifies the location of the Object Identifier database.

To change the location where a server accesses the OID database, first use `cp` or `tar` to make a copy of the contents of `/usr/pd/share/oid`. Then, use the `-O` option to specify the new location and to store that location in the server's object database.

`-R server_runtime_directory`

Modifies the location of the server's runtime directory.

When the server starts, it uses its runtime directory. The server interprets all relative paths as relative to its runtime directory.

You can specify any valid UNIX directory pathname as the runtime directory.

`-r authenticate_type`

Specifies the RPC authentication type the server will use.

See the Advanced Printing Software Command Reference Guide for a description of RPC authentication types. The values for `authenticate_type` are `NONE` and `SYS`. The default is `SYS`, which selects standard UNIX authentication.

`-s spool_directory`

Modifies the directory path the server uses to store documents prior to printing. You can specify any valid directory pathname for `spool_directory`.

pdmoddb(8)

-v

Displays informational messages during validation of command-line attributes.

For example, if you specify the -A, -r, and -v options on the command line, the utility displays the following messages:

```
Validating requested server attributes
Checking attribute:  access-control-list
Checking attribute:  cfg-rpc-auth-type
All requested server attributes are valid
```

The pdmoddb utility also displays the values of all the server attributes, after pdmakedb has finished creating the object database. For example:

```
Current server attributes are:
achilles_spl: server-state = ready
achilles_spl: server-internal-state = 2
achilles_spl: object-classes-supported = server
achilles_spl: enabled = FALSE
achilles_spl: conformance-levels-supported = level-1
                                           level-1M
                                           level-2
                                           level-2M
achilles_spl: cfg-src-odb-path = /usr/pd/share/odb
achilles_spl: cfg-src-oid-path = /usr/pd/share/oid
achilles_spl: cfg-server-runtime-dir = /var/spool/pd/achilles_spl
achilles_spl: cfg-acct-log-file-path = /var/pd/acct/achilles_spl:
achilles_spl: access-control-list = administrator:sysadmin
achilles_spl: cfg-rpc-auth-type = SYS
achilles_spl: cfg-max-log-backups = 4
achilles_spl: cfg-days-to-keep-acct-logs = 3
achilles_spl: cfg-safe-size-for-acct-logs = 1000000
achilles_spl: cfg-time-for-new-acct-log = 02:07:00
```

If you do not specify the -v option, pdmoddb only displays error messages.

DESCRIPTION

The pdmoddb utility modifies a print server object database when the associated spooler or supervisor process is not already running. It is provided as a tool for configuring server directories and other server parameters that cannot be modified while the server is running. For all other modifications, use the pdset utility.

There is a special syntax for setting the attributes to their default values. For the options: -a, -A, -e, -O, -r, -R, and -s, if the value specified is an equals sign (=), pdmod sets the attribute to its default value. The default syntax is not allowed for the -d and -n options.

pdmmoddb(8)

ACCESS LEVEL: Administrator

FILES

`/usr/pd/share/oid`

default OID database path

`/usr/pd/share/odb`

source ODB template

`/var/pd/odb`

default object database path

`/var/spool/pd/*`

default spool directory path

EXAMPLES

The following example changes the spool directory of spooler `achilles_spl` to `/var/spool/alt/achilles_spl`

```
pdmmoddb -v -n achilles_spl
```

SEE ALSO

Commands: `pdmakedb(8)`, `pdset(1)`, `pdshowdb(8)`, `pdsplr(8)`, `pdspvr(8)`, `pdspvlpr(8)`

pdprintadmin(8)

NAME

pdprintadmin – Advanced Printing Graphical User Interface

SYNOPSIS

```
/user/pd/bin/pdprintadmin [-sl status_line ]
```

OPTIONS

sl status_lines

Specifies the number of lines to display in the status area located at the bottom of the pdprintadmin window.

DESCRIPTION

The pdprintadmin utility is a CDE graphical user interface utility that allows you to perform many print system administration tasks on a local or remote system.

Help is available by using the Help button.

The pdprintadmin utility allows you to perform the following administrative tasks:

- Manage queues:
Add, delete, or modify queues. The pdprintadmin utility communicates with a running server process, which makes the appropriate changes to its database.
- Manage printers:
Add, delete, enable, disable, or modify logical and physical printers. The pdprintadmin utility communicates with a running spooler or supervisor, which makes the appropriate changes to its database.
- Manage user access:
Grant users or groups Administrator, Operator, or End-user access to a server. The pdprintadmin utility communicates with a running server process, which makes the appropriate changes to its database.
- Manage printer defaults:

pdprintadmin(8)

Create, delete, or modify initial-value-job objects (IVY and initial-value-document objects [IVY]). The `pdprintadmin` utility manages IVYs and IVDs to control available and default printer features.

ACCESS LEVEL: Users with appropriate access rights can use `pdprintadmin` to create, delete, and modify print object. Users without the required rights have read-only permissions (where applicable).

NOTES

The `pdprintadmin` utility communicates with running server processes. Those processes modify database and namespace files on the server system; that is, the host on which the spooler or supervisor process is running. `pdprintadmin` does not modify or update global networked databases such as NIS.

ENVIRONMENT VARIABLES

<code>PDPINTER</code>	Specifies your default logical printer. Also, implicitly specifies a default spooler as the one that hosts your default logical printer.
-----------------------	--

FILES

On startup, `pdprintadmin` uses the following resources:

`/dtb-add-device-paf-file-seln.directory`

Values: Valid directory path. The default is: `/usr/pd/share/cap`.

Description: Selects the default PAF directory to display when adding a new print device.

`/dtb-add-device-paf-file-seln.pattern`

Values: Valid pattern. The default is `*.paf`.

Description: Valid pattern. The printer attribute file browser window uses the specified pattern to filter the file list.

`statusLines`

Values: Integer value. Default value is 3 lines.

Description: The number of lines in the status window at the bottom of each application window.

pdprintadmin(8)

rpcTimeout

Values: Integer value. Default value is 15 seconds.

Description: The number of seconds to wait when querying for objects (per server).

SEE ALSO

Commands: `pdprint(1)`, `pdprintinfo(1)`

The `pdprintadmin` Help option on the Workspace menu or the CDE control panel.

pdpromote(8)

NAME

pdpromote – promotes a print job to the top of its queue

SYNOPSIS

pdpromote [-m *message_text*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] *job_identifier*

OPTIONS

-m *message_text*

Includes a message about the job.

If you use the -x string option or the -x file option, the equivalent command attribute type and value are:

For initial-value-document, document, printer, queue, and server objects

message=message_text

For jobs:

job-message-from-administrator=message_text

Users can view a message by issuing a `pdls` command specifying the job and including the following option: `-r message` or `-r job-message-from-administrator`.

-x *extended_attributes_string*

Specifies one or more *attribute_type=value* pairs to be used by the utility.

You cannot set most job or document attributes with the -x option. You can set the following client attributes:

attributes (to specify an attribute file)

job-message-from-administrator

Follow the syntax rules for attribute value strings described in the *Advanced Printing Software Command Reference Guide*.

pdpromote(8)

-X attribute_filename

Specifies an attributes file for the utility to read. When the utility runs, it processes the attribute definition at the current point in the command line, as though you had specified it with the *-x* option.

If you do not include the path, the utility searches the path specified in the PDPATH environment variable.

You cannot set object attributes with the *-x* option. You can set the following client attributes:

attributes (to specify another attribute file)

job-message-from-administrator

OPERANDS

[server_name:]job_id

The value of *job_id* is a unique identifier that refers to the specific job that you want to promote.

If you omit the server name, the utility submits the request to the spooler that supports the printer named in the PDPRINTER environment variable.

You can specify only one job in *job_id*. The utility assigns the job you are promoting to the first physical printer available that can accommodate the job requirements. The promote operation fails if a supervisor has already begun to process the job or if the job is in a retained or completed state.

DESCRIPTION

The `pdpromote` utility moves a print job to the top of its queue. As long as all job and document attributes are satisfied, the job will be the next one selected from the queue for printing.

- Jobs that are currently printing finish, and the server assigns the job you promoted to the first available physical printer that can accommodate it.
- You can promote only jobs that are in a held or pending state.
- The queue holding the job you want to promote must be in a ready or paused state.

pdpromote(8)

- You can promote a job more than once (if, for example, you promoted a job then inadvertently promoted other jobs ahead of it).
- If you are promoting multiple jobs, the first job to print is the last one you promoted.

ACCESS LEVEL: Operator

EXAMPLES

Promote job 1000 on blue_spl and include a message explaining why you are promoting the job:

```
pdpromote -m "The CEO needs this right away" blue_spl:1000
```

SEE ALSO

pdpr(1), pdls(1), pdq(1), pdrm(1)

pdshowdb(8)

NAME

pdshowdb – displays a print server object database

SYNOPSIS

pdshowdb [-d *ODB_directory*] [-e] [-h] [-n *server_name*]

OPTIONS

-d *ODB_directory*

Specifies the location of the object database. You must have read permission for the ODB pathname. If you do not specify the -d option, the utility looks for the object database files in the `/var/pd/odb` directory. If the directory does not exist or you do not have read permission, pdshowdb displays an error message and exits.

-e

Displays only the server executable pathname.

-h

Displays a help message.

If you specify the -h option, pdshowdb displays the help message only and does not do anything else, even if you have specified other options.

-n *server_name*

Specifies the name of the database. This name is also the name of the server.

If you do not specify the -n option, the utility uses a default name. The default name is derived from the name of the host on which pdshowdb is running. The format for the default name is `<hostname>_spl`.

If the database specified by the -n option does not exist or if you do not specify a server name and a server with the default name does not exist, pdshowdb displays an error message and exits.

DESCRIPTION

The pdshowdb utility can be used to display the contents of an existing server database when the server process associated with the database is not

pdshowdb(8)

running. The utility forms a full object database path by combining the values of `ODB_directory` and `server_name` or their defaults. It queries the database and displays server object attributes on standard output. For example, if you run `pdshowdb` with `-n myserver` and `-d /usr/local/pd`, the utility will show the object database in `/usr/local/pd/myserver`.

The `pdshowdb` utility displays an error message and exits if the database you specify does not exist or if the server that uses the database is running.

ACCESS LEVEL: Administrator

EXAMPLES

```
pdshowdb -n achilles_spl -d /usr/local/pd/odb
```

FILES

<code>/var/pd/odb</code>	object database directory
--------------------------	---------------------------

SEE ALSO

`pdmakedb(8)`, `pdmodddb(8)`, `pdsplr(8)`, `pdspvr(8)`, `pdspvlpr(8)`

pdshutdown(8)

NAME

pdshutdown – shut down a print spooler or supervisor

SYNOPSIS

pdshutdown [-c *class_name*] [-m *message_text*] [-w *when_time*] [-x *extended_attribute_string...*] [-X *attribute_filename...*] *server_name...*

OPTIONS

-c *class_name*

Specifies the class or type of object. The only valid class for this operation is server, the default.

-m *message_text*

Displays a message about the server which you are shutting down. For example, when a spooler is to be shutdown, the message might be:

-m “spooler ginger_sp1 is shutting down”

If you use the -x extended-attributes-string option or the -X attribute_filename option in the equivalent command attribute type and value is message=*message_text*.

Users can view the message by issuing a `pdls` command specifying the name of the server and -r message option.

-w *when_time*

Specifies how much processing can occur before the server can be shut down.

The following values are allowed:

now

If the server is a spooler, it is shut down immediately. Jobs already submitted to supervisors complete printing. The states of the jobs are not updated until the spooler is restarted.

If the server is a supervisor, it cancels active jobs and shuts down after all jobs on all associated physical printers are stopped. These jobs are restarted when the physical printers are operational again.

after-current (default)

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If the server is a spooler, it stops submitting new jobs to supervisors and shuts down after jobs that are currently printing have completed.

If the server is a supervisor, it shuts down after all currently printing jobs are completed.

after-all

If the server is a spooler, it stops accepting new jobs and shuts down after all currently printing jobs are completed.

If the server is a supervisor, it stops accepting new jobs and shuts down after all currently printing jobs are completed. This is equivalent to *after-current*.

If you use the *-x* string option or the *-X* file option, the equivalent attribute is *when=when_time*.

-x extended_attribute_string

Specifies one or more *attribute_type=value* pairs to be used by the utility.

You cannot use object attributes with this option. You can use the following command attributes: *attributes*, *class*, *message*, and *when*.

Follow the syntax rules for attribute value strings listed in the Advanced Printing Software Command Reference Guide.

-X attribute_filename

Specifies an attribute file. When the utility runs, the attribute's file is processed at the current point in the command line, as though it had been specified with the *-x* option.

OPERANDS

server_name

The value of *server_name* is the name of the specific spooler or supervisor to be shut down.

DESCRIPTION

Use the *pdshutdown* utility to stop a specified spooler or supervisor server process in the Advanced Printing Software environment.

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If the server is a spooler, this operation causes the spooler to disable itself so that no new jobs can be accepted. The value of the *when_time* argument determines exactly when and how the spooler shuts down. When the spooler is restarted, it has the same objects and attributes that it had before shutdown.

If the server is a supervisor, this operation causes the supervisor to disable itself and reject new jobs. The value of the *when_time* argument determines exactly when and how the supervisor shuts down.

ACCESS LEVEL: Operator

NOTES

The `pdshutdown` utility is an asynchronous command. Control is returned to your shell before the server shuts down. If you include a `pdshutdown` command in a shell script, you might need to follow it with a check for a running server process before proceeding to other commands in the script.

A shutdown operation cannot complete when there are printers paused in the process of printing a job unless the `-w now` option is specified. If you issue a `pdshutdown` command and the server fails to stop, try issuing the command again with the `-w now` option.

EXAMPLES

1. Shut down the server named `ginger` after jobs that are being printed have completed:

```
pdshutdown ginger
```

2. Shut down the spooler `fred_spl` after all currently printing jobs have completed:

```
pdshutdown -w after-all fred_spl
```

FILES

`/sbin/init.d/apx`

startup/shutdown script

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SEE ALSO

Commands: `pdls(1)`, `pdset(1)`, `pdcreate(8)`, `pddelete(8)`, `pdenable(8)`,
`pddisable(8)`, `pdpause(1)`, `pdresume(1)`, `pdsplr(8)`, `pdspvr(8)`,
`pdspvlpr(8)`

pdsplr(8)

NAME

pdsplr – Advanced Printing Software spooler

SYNOPSIS

```
/usr/pd/lib/pdsplr [-a] [-c ] [-F] [-e email_address] [-d ODB_directory]  
spooler_name
```

OPTIONS

-a

Forces the administrator to acknowledge that attribute values of server objects are correct, thereby preventing server startups with a possibly corrupt database.

The **-a** option is required only for server startups that take place after the server has had to repair the object database as part of a crash recovery.

-c

Forces a database integrity check at startup after a normal shutdown.

The server automatically checks the database integrity when it restarts after having terminated abnormally; for example, after a power outage. However, by default, it omits this check if the server was shut down normally.

You can use the **-c** option to force a database integrity check if you suspect a corrupt object database.

-F

Runs the process in the foreground.

By default, the spooler process runs in the background.

-e *email_address*

Specifies an e-mail address for the spooler to use when it encounters startup errors.

The spooler process sends an e-mail message to the specified address with details of a failed startup. Startup and shutdown information is always recorded in the system log files.

pdsplr(8)

`-d ODB_directory`

Specifies the location of the object database.

If you do not specify the `-d` option, the spooler uses a default database path, `/var/pd/odb`.

Do not specify the name of the database file; specify only the directory pathname as part of the destination ODB. The name of the spooler database file comes from the `spooler_name` argument to `pdsplr`.

This option is required only when you have used the `-d` option as part of the `pdmakedb` operation to create the spooler database in a nondefault location.

DESCRIPTION

The `pdsplr` program is the Advanced Printing Software spooler server process.

A spooler server process manages print jobs in a network environment. It listens for and services client RPC requests. It schedules jobs for printing when suitable printers are available and reports status to users and administrators as appropriate. A spooler works with one or more supervisor server processes to distribute jobs to output devices.

A spooler process manages a persistent named server database. The database contains information about printers, queues, and initial value objects supported by the spooler and about the print jobs it processes. Prior to running a spooler for the first time, you must use the `pdmakedb` utility to create an initialized server database.

Upon startup, a spooler process registers itself in the local file name space (`/etc/printers.conf`) and with the host's RPC port mapper. Client utilities can then be used to manage the spooler process and its database over the network.

ACCESS LEVEL: Administrator

EXAMPLES

1. This command line starts a spooler named `odysseus_spl` with the default location for the ODB and no e-mail notification for errors:

```
/usr/pd/lib/pdsplr odysseus_spl
```

pdsplr(8)

2. This command line starts a spooler named `odysseus_spl` and specifies that the associated ODB is in the `/usr/local/odb` directory:

```
/usr/pd/lib/pdsplr -d /usr/local/odb odysseus_spl
```

3. This command line starts a spooler named `odysseus_spl` and specifies that the user `telemachus` should receive an e-mail message if there are any errors during startup:

```
/usr/pd/lib/pdsplr -e telemachus@ithaca.gov odysseus_spl
```

FILES

`/usr/pd/lib/pdsplr`

spooler executable

`/usr/pd/lib/pdspvr`

supervisor executable

`/usr/pd/share/oid`

OID database path

`/usr/pd/share/odb`

source ODB template

`/var/pd/odb`

default object database directory

`/etc/printers.conf`

local name file

SEE ALSO

Commands: `pdspvr(8)`, `pdsplpr(8)`, `pdmakedb(8)`, `pdmogdb(8)`, `pdshowdb(8)`, `pdshutdown(8)`

pdspvlpr(8)

NAME

pdspvlpr – Advanced Printing Software LPD Outbound Gateway Supervisor

SYNOPSIS

```
/usr/pd/lib/pdspvlpr [-a ] [-c ] [-F ] [-e email_address] [-d ODB_directory]  
supervisor_name
```

OPTIONS

-a

Forces the administrator to acknowledge that attribute values of server objects are correct, thereby preventing server startups with a possibly corrupt database.

The -a option is required only for server startups that take place after the server has had to repair the object database as part of a crash recovery.

-c

Forces a database integrity check at startup after a normal shutdown.

The server automatically checks the database integrity when it restarts after having terminated abnormally; for example, after a power outage. However, by default, it omits this check if the server was shut down normally.

You can use the -c option to force a database integrity check if you suspect a corrupt object database.

-F

Runs the process in the foreground.

By default, the outbound gateway supervisor process runs in the background.

-e *email_address*

Specifies the e-mail address for the LPD outbound gateway supervisor to use when it encounters start-up errors.

The supervisor sends an e-mail message to the specified address with details of a failed start-up. Startup and shutdown are recorded in the system log files.

pdsplpr(8)

`-d ODB_directory`

Specifies the location of the object database.

If you do not specify the `-d` option, the supervisor uses a default database path in `/var/pd/odb`.

Do not specify the name of the database file; specify only the ODB directory parameter. The name of the supervisor database file comes from the supervisor-name argument to `pdsplpr`.

This option is required only when you have used the `-d` option as part of the `pdmakedb` operation to create the supervisor database in a nondefault location.

DESCRIPTION

The LPD outbound gateway supervisor accepts print jobs from an Advanced Printing Software spooler and converts them into LPD print requests. The outbound gateway supervisor forwards print jobs to LPD printers or to any host supporting LPD-based printing. It uses Line Printer Daemon Protocol as outlined in RFC-1179, to communicate with a remote lpd daemon or with lpd-compliant network printers. In addition, the outbound gateway supervisor supports LPD extensions defined by Xerox Corporation and SunSoft. For information about using these extensions, refer to the Advanced Printing Software System Administration Guide.

An outbound gateway supervisor process manages its own named server database. The database contains information about the printers supported by the supervisor and about jobs being processed. Prior to running a gateway supervisor for the first time, you must use the `pdmakedb` utility to create an initialized server database.

Upon startup, an outbound gateway supervisor registers itself in the local file name space (`/etc/printers.conf`) and with the host's RPC port mapper. Client utilities can then be used to manage the gateway process and its database over the network.

ACCESS LEVEL: Administrator

NOTES

The LPD outbound gateway supervisor allows you to create 100 physical printer objects, each supporting the use of a remote LPD-based printer. If you need more than this number, you should run multiple outbound gateway

pdspvlpr(8)

supervisor processes with different names and divide your physical printer objects among them.

Use the `pdcreate` utility to create physical printer objects. To use a supported printer model, use the `pdcreate -X` option to specify the Printer Attribute File appropriate for the printer model. When you create a physical printer object, you must specify how the outbound gateway is to connect to the printer device by supplying a value to the printer-address attribute. The general format of an outbound gateway printer address is:

```
<remotehost>,<printername>,<protocol conformance>
```

Where remote host is the name of the host running the lpd software, printer_name is the name of the lpd printer queue on that host, and protocol conformance is one of the following:

1179 - Standard RFC1179 LPD protocol

Solaris - Sun Solaris extensions

DigitalUNIX - Compaq extensions

Xerox - Xerox extensions

EXAMPLES

1. This command line starts an outbound gateway named `odysseus_obg`:

```
/usr/pd/lib/pdspvlpr odysseus_obg
```
2. This command line starts an outbound gateway `odysseus_obg` and specifies that the associated ODB is in the `/usr/local/odb` directory:

```
/usr/pd/lib/pdspvlpr -d /usr/local/odb odysseus_obg
```
3. This command line starts an outbound gateway named `odysseus_obg` and specifies that the user `telemachus` should receive an e-mail message if there are any errors during startup:

```
/usr/pd/lib/plspvlpr -e telemachus@ithaca.gov odysseus_obg
```

FILES

`/usr/pd/lib/pdspvlpr`

LPD outbound gateway supervisor

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`/usr/pd/share/oid`

OID database path

`/usr/pd/share/odb`

source ODB template

`/var/spool/pd/*`

spool directories

`/usr/pd/share/cap/*.paf`

printer attribute files

`/etc/printers.conf`

local name file

SEE ALSO

Commands: `pdsplr(8)`, `pdspvr(8)`, `pdmakedb(8)`, `pdmoddb(8)`, `pdshowdb(8)`,
`pdshutdown(8)`, `pdcreate(8)`

NAME

pdspvr – Advanced Printing Software Supervisor

SYNOPSIS

`/usr/pd/lib/pdspvr [-a] [-c] [-F] [-e email_address] [d ODB_directory]
supervisor_name`

OPTIONS

`-a`

Forces the administrator to acknowledge that attribute values of server objects are correct, thereby preventing server startups with a possibly corrupt database.

The `-a` option is required only for server startups that take place after the server has had to repair the object database as part of a crash recovery.

`-c`

Forces a database integrity check at startup after a normal shutdown.

The server automatically checks the database integrity when it restarts after having terminated abnormally; for example, after a power outage. However, by default, it omits this check if the server was shut down normally.

You can use the `-c` option to force a database integrity check if you suspect a corrupt object database.

`-F`

Runs the process in the foreground.

By default, the supervisor process runs in the background.

`-e email_address`

Specifies an e-mail address for the supervisor to use when it encounters startup errors.

The supervisor sends an e-mail message to the specified address with details of a failed startup. Startup and shutdown information is always recorded in the system log files.

pdspvr(8)

`-d ODB_directory`

Specifies the location of the object database.

If you do not specify the `-d` option, the supervisor looks for its database in `/var/pd/odb`.

Do not specify the name of the database file; specify only the directory pathname as part of the destination ODB-directory parameter. The name of the supervisor database file comes from the supervisor-name argument to `pdspvr`.

This option is required only when you have used the `-d` option as part of the `pdmakedb` operation to create the supervisor database in a nondefault location.

DESCRIPTION

The `pdspvr` program is the primary supervisor server process supplied with Advanced Printing Software.

The supervisor supports printers connected to a host by serial, parallel, TCP/IP-socket, and PrintServer connections. The supervisor directly controls all aspects of printing a job. The supervisor receives data and instructions from its associated spooler server process and is responsible for receiving and executing management requests that apply to the supervisor or to physical printers.

Any networked system with one or more attached printers can run a supervisor server process. As a general guideline, one server process can manage 50 physical printers. To support substantially more printers, a site should divide the printers among two or more supervisor server processes.

A supervisor process manages its own named server database. The database contains information about the printers supported by the supervisor and about jobs being processed. Prior to running a supervisor for the first time, you must use the `pdmakedb` utility to create an initialized server object database.

Upon startup, a supervisor process registers itself in the local file name space (`/etc/printers.conf`) and with the host's RPC port mapper. Client utilities can then be used to manage the supervisor process and its database over the network.

ACCESS LEVEL: Administrator

pdspvr(8)

EXAMPLES

1. This command line starts a supervisor named `odysseus_sup`:

```
/usr/pd/lib/pdspvr odysseus_sup
```
2. This command line starts a supervisor named `odysseus_sup` and specifies that the associated ODB is in the `/usr/local/odb` directory:

```
/usr/pd/lib/pdspvr -d /usr/local/odb odysseus_sup
```
3. This command line starts a supervisor named `odysseus_sup` and specifies that the user `telemachus` should receive an e-mail message if there are errors during startup:

```
/usr/pd/lib/pdspvr -e telemachus@ithaca.gov odysseus_sup
```

FILES

```
/usr/pd/lib/pdspvr  
    supervisor executable  
  
/usr/pd/lib/pdsplr  
    spooler executable  
  
/usr/pd/share/oid  
    OID database path  
  
/usr/pd/share/odb  
    source ODB template  
  
/var/pd/odb  
    default object database directory  
  
/usr/pd/share/cap/*.paf  
    printer attribute files  
  
/etc/printers.conf  
    local file name
```

pdspvr(8)

SEE ALSO

Commands: `pdsplr(8)`, `pdspvlpr(8)`, `pdmakedb(8)`, `pdmoddb(8)`,
`pdshowdb(8)`, `pdshutdown(8)`

A

Attributes

This appendix provides a description of all attributes supported by the print system. The appendix includes:

- Lists of attributes grouped by object class. Within each object class, settable attributes are indicated with an asterisk (*).
- A detailed attribute directory, organized alphabetically. Each attribute entry includes the following components:
 - Brief description of the attribute
 - Objects with which the attribute is associated
 - Whether the attribute can contain one value (single value) or multiple values (multi-value)
 - Whether the attribute is settable
 - Valid values for the attribute

A.1 Attributes Grouped by Object Class

The following sections list attributes for each class of object. All settable attributes are indicated with an asterisk (*).

Spooler and Supervisor Attributes

access-control-list *
availability
cancel-individual-document-supported
cfg-prologue-path*
configuration-attributes-visible *
conformance-levels-supported
descriptor *
enabled * (settable via pdenable/pddisable)
events-supported
file-reference-is-local-only
job-attributes-visible-to-all *
job-completion-period
locale
locales-supported
message

modify-individual-document-supported
multiple-documents-supported
notification-delivery-methods-ready
notification-delivery-methods-supported
notification-profile *
object-class
object-classes-supported
physical-printers-ready
physical-printers-supported
server-cluster-member
server-hostname
server-name
server-state
server-type
transfer-methods-supported

Spooler Attributes

hold-jobs-interrupted-by-printer-failure *
logical-printers-ready
logical-printers-supported
queues-supported

Supervisor Attributes

filter-definition *
maximum-number-of-printers-supported
number-of-printers-supported *

Logical and Physical Printer Attributes

associated-queue *
associated-server
availability
binding-edges-supported *
character-sets-supported *
content-orientations-supported *
descriptor *
document-formats-supported *
document-sheets-supported *
enabled * (settable via pdenable/pddisable)
extended-lpd-job-identifiers
finishings-supported *
fonts-supported *
highlight-colour-rendering-algorithms-supported *
highlight-colours-supported *

highlight-mapping-colours-supported *
input-trays-supported *
job-sheets-supported *
maximum-copies-supported *
media-supported *
message *
notification-profile *
numbers-up-supported *
object-class
output-bins-supported *
outputs-supported *
page-select-supported *
plexes-supported *
printer-associated-printers
printer-name * (settable only at printer creation)
printer-problem-message
printer-realization
printer-state
printers-ready
sides-supported *
thickening-supported *
x-image-shift-range-supported *
y-image-shift-range-supported *

Logical Printer Attributes

default-user-job-priority*
max-user-job-priority*
printer-creation-time
printer-initial-value-document *
printer-initial-value-job *

Physical Printer Attributes

bsd-printer-name *
character-sets-ready *
document-formats-ready *
document-sheets-ready
excluded-filters *
extended-lpd-job-identifiers
finishings-ready *
fonts-ready *
highlight-colours-ready *
input-trays-medium *
input-trays-ready *
job-sheets-ready *

- maximum-printer-speed *
- media-ready *
- native-document-formats-ready *
- output-bins-ready *
- outputs-ready *
- printer-address *
- printer-associated-host*
- printer-baud-rate *
- printer-connection-level *
- printer-connection-method *
- printer-data-bits *
- printer-input-flow-control *
- printer-locations *
- printer-model * (settable only at printer creation)
- printer-multiple-copy-mode*
- printer-output-flow-control *
- printer-parity *
- printer-stop-bits *
- printer-tcpip-port-number *
- printer-timeout-period *
- sides-ready *

Queue Attributes

Settable attributes are indicated with an asterisk (*).

- associated-server
- availability
- descriptor *
- disable-backlogged-queue*
- enabled * (settable via pdenable/pddisable)
- logical-printers-ready
- logical-printers-supported
- message *
- notification-profile *
- object-class
- physical-printers-ready
- physical-printers-supported
- queue-backlog-lower-limit*
- queue-backlog-upper-limit*
- queue-name * (settable only at queue creation)
- queue-problem-message
- state

Job Attributes

- assigned-queue

completion-time
 current-job-state
 document-sheets *
 initial-value-job * (settable only at job submission)
 intervening-jobs
 job-comment *
 job-copies *
 job-copies-completed
 job-discard-time *
 job-fault-count
 job-hold *
 job-identifier
 job-identifier-on-client * (settable only at job submission)
 job-identifier-on-printer
 job-message-from-administrator *
 job-name *
 job-originating-host
 job-originator *
 job-owner * (settable only at job submission)
 job-print-after *
 job-priority
 job-promote-time
 job-retention-period *
 job-sheets *
 job-state-message
 job-state-reasons
 job-submission-complete
 notification-profile *
 number-of-documents
 object-class
 output-bin *
 physical-printers-requested *
 previous-job-state
 printer-name-requested * (settable only at job submission)
 printers-assigned
 results-profile * (settable via job-copies and output-bin attributes)
 started-printing-time
 submission-time
 total-job-octets
 user-name

Document Attributes

additional-production-instructions
 binding-edge *
 bottom-margin *

- content-orientation *
- copy-count *
- default-character-set *
- default-font *
- default-input-tray *
- default-medium *
- document-file-name * (For a document object, settable only at job submission.)
- document-format *
- document-name *
- document-sequence-number
- document-state
- finishing *
- footer-text *
- header-text *
- highlight-colour *
- highlight-colour-mismatch-action *
- highlight-colour-rendering-algorithm *
- highlight-mapping-colour *
- initial-value-document * (settable only at job submission)
- left-margin *
- length *
- modification-filter *
- no-filtering *
- number-pages *
- number-up *
- object-class
- octet-count
- output *
- page-media-select *
- page-order-received *
- page-select *
- plex *
- printer-setup-module*
- repeated-tab-stops *
- reset-printer *
- right-margin *
- sides *
- thickening-specification *
- top-margin *
- transfer-method * (settable only at job submission)
- translation-filter *
- width *
- x-image-shift *
- y-image-shift *

Initial Value Job Attributes

associated-server
descriptor *
document-sheets *
initial-value-job-identifier * (settable only at initial-value-job creation)
job-comment *
job-copies *
job-discard-time *
job-hold *
job-name *
job-print-after *
job-priority*
job-retention-period *
job-sheets *
message *
object-class
output-bin *
physical-printers-requested *
results-profile * (settable via job-copies and output-bin attributes)

Initial Value Document Attributes

associated-server
binding-edge *
bottom-margin *
content-orientation *
copy-count *
default-character-set *
default-font *
default-input-tray *
default-medium *
descriptor *
document-file-name * (For an initial-value-document object, settable only at initial-value-document creation or modification.)
document-format *
document-name *
finishing *
footer-text *
header-text *
highlight-colour *
highlight-colour-mismatch-action *
highlight-colour-rendering-algorithm *
highlight-mapping-colour *
initial-value-document-identifier * (settable only at initial-value-document creation)

left-margin *
length *
message *
number-pages *
number-up *
object-class
output *
page-media-select *
page-order-received *
page-select *
plex *
printer-setup-module*
repeated-tab-stops *
reset-printer *
right-margin *
sides *
thickening-specification *
top-margin *
width *
x-image-shift *
y-image-shift *

A.2 Attribute Descriptions

This directory contains a detailed description of every print system attribute. For each attribute, the following information is included:

- A brief description of the attribute. Each description categorizes the attribute's functionality. You may refer to the "Attributes grouped by function" section of this appendix to compare functionally similar attributes across different object classes.
- A list of objects with which the attribute is associated.
- A field indicating if the attribute can contain one value (single value) or multiple values (multi-value).
- A field indicating if the user can set or modify the attribute. Some attributes are settable only at object creation.
- A list of valid values for the attribute. For complex attributes, valid values for each element are shown.

This section includes client attributes. These attributes specify parameters for the operation of CLI commands and are not communicated to the server. Client attributes are:

- *attributes*
- *class*

- *copy-from*
- *count-limit*
- *document-filename*
- *filter*
- *headings*
- *requested-attributes*
- *scope*
- *style*
- *time-limit*
- *when*

A.2.1 access-control-list

The `access-control-list` attribute specifies the privilege level of specified authorized print system users within and across domains.

Objects Server (spooler and supervisor)

M/S Multi-value

Settable Yes

Valid values See table

Table A–1: access-control-list

Element	Data Type	Valid Values
name	text	[<i>UserName</i>] @ (valid only for name-type=all-users) [<i>UserName</i>] <i>@domain</i> (valid only for name-type=all-users) [<i>UserName</i>] <i>@host</i> (valid only for name-type=all-users)
name-type	objectIdentifier	<i>all-users</i> <i>user</i> <i>group</i> (default if name and name-type not specified) <i>netgroup</i>
privilege-level	objectIdentifier	<i>end-user</i> (default if privilege-level not specified) <i>operator</i> <i>administrator</i>

Default value The default ACL has two values:

- `name-type=all-users;`
`privilege-level=end-user`
- `name=sysadmin; name-type=group,`
`privilege-level=administrator`

When an administrator creates a server, the server sets the two values for its ACL. (The only exception is if you set an administrator value ACL with the `-A` with startup option.) If the domain does not include a group named `sysadmin`, the `local-root` user needs to set the server's ACL to a locally correct value.

You may reset `access-control-list` to its default values by typing:

```
pdset -c server -x "access-control-list=="
spooler_name
```

Resetting to the default values replaces the specified object's ACL with the two default values listed above, regardless of what is locally correct.

A.2.2 additional-production-instructions

Specifies lpd processing options that are not representable as attributes.

Objects	Document
M/S	Single value
Settable	Yes
Valid Values	Text string of up to 255 characters

A.2.3 assigned-queue

The queue to which the spooler assigned the job.

Objects	Job
M/S	Single value
Settable	No
Valid values	Text string of up to 255 characters

A.2.4 associated-queue

On logical printers: Identifies the single queue the logical printer feeds.

On physical printers: Identifies the single queue (and, therefore, the single spooler) from which the physical printer receives jobs.

A user must first disable the relevant logical or physical printer before setting the corresponding value for `associated-queue`.

Objects	Printer (logical and physical)
M/S	Single value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.5 associated-server

Name of the server with which the object is associated. It is set by object when it is created.

Objects	Initial-value-document
	Initial-value-job
	Printer (logical and physical)
	Queue
M/S	Single value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.6 attributes

This client attribute identifies one or more attributes that are to be included in an operation.

Objects	N/A
M/S	Multi-value
Settable	Yes

Valid values	Text string of up to 255 characters
--------------	-------------------------------------

A.2.7 availability

Indicates the general availability of an object. It is set to none if the object is disabled and to normal if the object is enabled.

Objects	Printer (logical and physical) Queue Server (spooler and supervisor)
M/S	Single value
Settable	No
Valid values	Normal None (not available)

A.2.8 binding-edge

Specifies the edge of the sheet on which binding will occur from the perspective of the first sheet imaged.

The attribute determines the edge to which the `binding-edge-image-shift` attribute is applied.

Destination logical and physical printers must contain the specified document's binding-edge as a value of their `binding-edges-supported` attribute.

If the client does not specify binding-edge, the default value is `top-edge` if `plex=tumble`. Otherwise, the default edge is `left-edge` (for `plex=simplex` and `plex=duplex`).

If the client specifies a document (or range of pages) where the first page is a back side of a sheet, the client must specify the binding-edge from the perspective of that first page. That is, on a document to be bound on the left edge, the client would specify `right-edge` because the back page would be bound on its right edge.

Objects	Document Initial-value-document
M/S	Single value

Settable	Yes
Valid values	Bottom-edge Right-edge Top-edge Left-edge

A.2.9 binding-edges-supported

Identifies the binding-edge values supported by this printer.

Refer to the `binding-edge` attribute description for additional information.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Bottom-edge Right-edge Top-edge <i>left-edge</i>

A.2.10 bottom-margin

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the number of lines between the bottom edge of the logical page and the bottom edge of the text area when held in the intended reading orientation.

(Some document formats, such as PostScript, specify the margin as part of the document content; simple-text does not.)

The value `bottom-margin=6` specifies a bottom margin of six lines. The actual distance is dependent on the size of the character set specified for the document.

Because of its use with simple-text format, `bottom-margin` is typically part of a simple-text translation filter as defined with the attribute `filter-definition`.

Objects	Document Initial-value-document
---------	------------------------------------

M/S	Single value
Settable	Yes
Valid values	Any positive number

A.2.11 cancel-individual-document-supported

Indicates if the server can cancel printing of an individual document within a job.

Objects	Server (spooler and supervisor)
M/S	Single value
Settable	No
Valid values	False or no

A.2.12 cfg-prologue-path

Specifies a system directory where printer setup modules and prologues can be found. The pdspvr supervisor searches directories in the following order: printer-specific `cfg-prologue-path`, server-specific `cfg-prologue-path`, `/usr/local/pd/setup`, and `/usr/pd/share/prologues`.

Objects	Server (supervisor) Printer (physical)
M/S	Single value
Settable	Yes
Valid values	Text string

A.2.13 character-sets-ready

Identifies the character set encodings ready to be used on the printer.

On job submission, the spooler checks the character set specified for a document against the logical printer's `character-sets-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `character-sets-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	See <i>default-character-set</i>

A.2.14 **character-sets-supported**

Identifies the character set encodings supported by the printer

On job submission, the spooler checks the character set specified for a document against the logical printer's `character-sets-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `character-sets-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	See the <code>default-character-set</code> attribute

A.2.15 **class**

This client attribute identifies the object class of the operand.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	

A.2.16 completion-time

Time at which the job completed printing.

If job end sheets are in use via the `job-sheets` attribute, the value of the `completion-time` attribute prints on job end sheets.

Objects	Job
M/S	Single value
Settable	No
Valid values	

A.2.17 conformance-levels-supported

Specifies the conformance levels supported.

Objects	Server (spooler and supervisor)
M/S	Multi-value
Settable	No
Valid values	<i>level-2M</i>

A.2.18 content-orientation

Provides you with more control over the placement of text in a document with simple-text format. Specifically, the attribute enables you to specify the most significant orientation of the document.

(Some document formats, such as PostScript, specify the document orientation as part of the document content; simple-text does not.)

A document's orientation (whether specified via `content-orientation` or as part of the document content) works together with the value of the `number-up` attribute to determine the orientation and number of images that will print on the output page.

Destination logical and physical printers must contain the specified document's `content-orientation` value as a value of their `content-orientations-supported` attribute.

Because of its use with simple-text format, content-orientation is typically a part of a simple-text translation filter as defined with the attribute filter-definition.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Portrait Landscape Reverse-portrait Reverse-landscape

A.2.19 content-orientations-supported

Specifies the document content orientations supported by the printer. The attribute values must include any content orientation for a document directed to the printer.

If content-orientations-supported for the logical printer does not contain a value match to the document's orientation, the spooler rejects the print request. If content-orientations-supported for the physical printer does not contain a value match to the document's orientation, the spooler leaves the job pending.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Portrait Landscape Reverse-portrait Reverse-landscape

A.2.20 copy-count

Specifies the number of copies of the document to be printed. The copy-count can also apply to selected pages, if supported (see page-select and page-select-supported attributes).

The value of the copy-count attribute should not exceed the value of the logical or physical printer's maximum-copies-supported attribute. If it does, the spooler rejects the job.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Number greater than 1

A.2.21 copy-from

Causes the server to create a new object that is identical to an existing one specified in the copy-from attribute

Objects	Printer, queue, initial-value-job, initial-value-document
M/S	Single value
Settable	N/A
Valid values	Name of existing object of same class

A.2.22 count-limit

Specifies the number of objects to be included in groupings for pdls output. Setting this attribute causes the output of pdls command to be segmented, so that the information is displayed in stages.

Objects	N/A
M/S	Single value
Settable	Yes

Valid values	Number greater than 1
--------------	-----------------------

A.2.23 current-job-state

Identifies the current state of the job.

If a job's `job-print-after` attribute is set for a date or time in the future, its `current-job-state` attribute is set to `held`. When the specified time has elapsed, `current-job-state` is set to `pending` so the job becomes a candidate for being scheduled for printing.

If a job's `job-hold` attribute is set to `true` or `yes`, its `current-job-state` attribute is set to `held`.

Objects	Job
M/S	Single value
Settable	No
Valid values	Completed, printing, held, processing, paused, retained, pending, terminating, preprocessing, and unknown.

A.2.24 default-character-set

Identifies a coded character set that the spooler uses as the coded character set default for document pages not otherwise specifying a character set.

If the document data itself specifies a character set, such specification overrides the `default-character-set` in use by the spooler.

On job submission, the spooler checks the character set specified for a document against the logical printer's `character-sets-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `character-sets-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes

Valid values See table

Table A-2: default-character-set

Values		
Adobe-Standard-Encoding	ISO-Latin2	PC-page-852-Latin2
ASCII	ISO-Latin3	PC-page-862-Latin-Hebrew
Big5	ISO-Latin4	Shift-JIS
DEC-MCS	ISO-Latin5	UCS4
EUC-Fixed-Width-Japanese	ISO-Latin6	Unicode
EUC-Packed-Format-Japanese	ISO-reg11-Swedish-for-Names	Unicode-ASCII
GB-2312	ISO-reg15-Italian	Unicode-IBM-1264
Half-Width-Katakana	ISO-reg17-Spanish	Unicode-IBM-1265
HP-Desktop	ISO-reg21-German	Unicode-IBM-1268
HP-Legal	ISO-reg4-United-Kingdom	Unicode-IBM-1276
HP-Math8	ISO-reg60-Danish-Norwegian	Unicode-IBM-1261
HP-PiFont	ISO-reg69-French	Unicode-IBM-2039
HP-PS-Math	ISO-Text-Communication	Unicode-Latin1
HP-Roman8	iso-ucs-2-level2	Ventura-International
IBM-Symbols	JIS-Encoding	Ventura-Math
IBM-Thai	Microsoft-Publishing	Ventura-US
ISO-Latin-Arabic	Other	Windows30-Latin1
ISO-Latin-Cyrillic	PC8-Danish-Norwegian	Windows31-Latin1
ISO-Latin-Greek	PC8-page-437-US	Windows31-Latin2
ISO-Latin-Hebrew	PC8-Turkish	Windows31J
ISO-Latin1	PC-page-850-Multilingual	Windows31-Latin5

A.2.25 default-font

Identifies the font to be used for document pages not otherwise specifying a font.

If the document data itself specifies a font, such specification overrides the `default-font` in use by the spooler.

On job submission, the spooler checks the font specified for a document against the logical printer's `fonts-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `fonts-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.26 **default-input-tray**

Specifies the input tray that the supervisor sets as the default before the document begins printing.

Destination logical and physical printers `input-trays-supported` attributes must contain a value corresponding to the value of the `default-input-tray` attribute of a document to be printed. The physical printer's `input-trays-ready` attribute must also contain a value corresponding to the value of the `default-input-tray` attribute of the document to be printed.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Top, middle, bottom, envelope, manual, large-capacity, main, side

A.2.27 **default-medium**

Specifies the medium used for pages that require specification.

If the `page-media-select` attribute is specified, its value overrides the `default-medium` value on a page-by-page basis.

On job submission, the spooler checks the medium specified for a document against the logical printer's `media-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's media-ready attribute. If there is no match, the spooler leaves the job pending.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	See table

Table A–3: default-medium

Values		
a	iso-b10-white	jis-b4-white
b	iso-b1-white	jis-b5-coloured
c	iso-b2-white	jis-b5-white
d	iso-b3-white	jis-b6-white
default	iso-b4-coloured	jis-b7-white
e	iso-b4-envelope	jis-b8-white
executive	iso-b4-white	jis-b9-white
folio	iso-b5-coloured	ledger
invoice	iso-b5-envelope	monarch-envelope
iso-a0-white	iso-b5-white	na-10x13-envelope
iso-a10-white	iso-b6-white	na-10x14-envelope
iso-a1-white	iso-b7-white	na-10x15-envelope
iso-a2-white	iso-b8-white	na-6x9-envelope
iso-a3-coloured	iso-b9-white	na-7x9-envelope
iso-a3-white	iso-c3-envelope	na-9x11-envelope
iso-a4-coloured	iso-c4-envelope	na-9x12-envelope
iso-a4-transparent	iso-c5-envelope	na-legal-coloured
iso-a4-white	iso-c6-envelope	na-legal-white
iso-a5-coloured	iso-designated-long-envelope	na-letter-coloured
iso-a5-white	jis-b0-white	na-letter-transparent

Table A–3: default-medium (cont.)

Values		
iso-a6-white	jis-b10-white	na-letter-white
iso-a7-white	jis-b1-white	na-number-10-envelope
iso-a8-white	jis-b2-white	na-number-9-envelope
iso-a9-white	jis-b3-white	quarto
iso-b0-white	jis-b4-coloured	

A.2.28 default-user-job-priority

Sets the job-priority when the job-priority is not explicitly set. The value must be less than or equal to the value of the max-user-job-priority attribute.

Objects	Printer (logical)
M/S	Single value
Settable	Yes
Valid values	Integer values 1–100

A.2.29 descriptor

Supplies a textual description of the specified object.

Objects	Initial-value-document
	Initial-value-job
	Printer (logical and physical)
	Queue
	Server (spooler and supervisor)
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.30 disable-backlogged-queue

Indicates whether a queue is declared disabled when backlogged.

Objects	Queue
M/S	Single value
Settable	Yes
Valid values	Boolean (true or false)

A.2.31 document-file-name

Specifies the name of the file, if any, with complete path. Do not confuse this attribute with the `client document-filename` attribute.

If document start sheets are in use via the `document-sheets` attribute, the value of the `document-file-name` attribute prints on document start sheets.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes (For a document object, only at job submission. For an initial-value-document object, only at initial-value-document creation or modification.)
Valid values	Text string of up to 4095 characters
Comments	

A.2.32 document-filename

Identifies the input file name to be printed as a document in a print job. The name may or may not include the complete path specification. Do not confuse this attribute with the `initial-value-document` and `document-file-name` attributes.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.33 document-format

Identifies the data format of a document.

Destination logical and physical printers must contain the specified document's `document-format` value as a value of their `document-formats-supported` attribute. The physical printer must also contain the document's `document-format` value as a value of its `document-formats-ready` attribute.

Examples:

`document-format=PostScript`

`document-format="{document-format=PostScript document-format-variants='level2' document-format-version='48.13'}"`

Note that if the optional elements are not included, the value does not require the braces {} (`document-format=PostScript`).

Objects	Document
	Initial-value-document
M/S	Single value
Settable	Yes
Valid values	See table

Table A–4: document-format

Values		
201PL	fortra	Pinwriter
ART	HPGL	PJL
automatic	IGP	plot
CaPSL	imPRESS	PostScript
CCITT	Interpress	PPDS
cif	IPDS	PSPrinter
CodeV	ISO6429	QUIC
CPAP	LCDS	raster
DDIF	line-data	ReGIS
DEC-PPL	LIPS	SCS
Diagnostic	LN03	simple-text

Table A–4: document-format (cont.)

Values		
ditroff	MODCA	SPDL
DOC	NPAP	Tek4014
DPC	NPDL	TIFF
DSC-DSE	Other	troff
dvi	PAGES	Unknown
Epson	PCL	WPS
EscapeP	PCL-XL	XES
EXCL	PDS	PDF

A.2.34 document-formats-ready

Specifies the document formats that can be handled by the printer and any associated translators. For example, on a LaserWriter with the standard supervisor, the value of this attribute is PostScript and simple-text.

The `document-formats-ready` attribute must contain a value corresponding to the value of the `document-format` attribute of a document to be printed on this printer.

Also, checking takes place to compare the values of `document-formats-ready` with the printer's `native-document-formats-ready` attribute. If there is a mismatch, the print system may abort the job. Ask your system administrator for details.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	See <code>document-format</code> attribute description

A.2.35 document-formats-supported

Specifies the document formats supported by the printer.

The `document-formats-supported` attribute must contain a value corresponding to the value of the `document-format` attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
Settable	Yes
Valid values	See <code>document-format</code> attribute description

A.2.36 **document-name**

Specifies a meaningful or base name for the document. This attribute is set to be the file name, if not otherwise specified by the submitter.

A path specification is not included in the value of this attribute. If the system provides the full path name, the file name is only used by this attribute.

If document start sheets are in use via the `document-sheets` attribute, the value of the `document-name` attribute prints on document start sheets.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.37 **document-sequence-number**

Specifies the sequence number of this document within a job.

Objects	Document
M/S	Single value
Settable	No
Valid values	Number equal to or greater than 0

A.2.38 **document-sheets**

Specifies the auxiliary sheets the server should insert into the job.

If you specify a value of `doc-set-start-copies-separate`, a separator sheet precedes every copy of the document.

Destination logical and physical printers must contain the specified job's `document-sheets` value as a value of their `document-sheets-supported` attribute. The physical printer must also contain the specified job's `document-sheets` value as a value of its `document-sheets-ready` attribute.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	None doc-set-start-copies-separate

A.2.39 **document-sheets-ready**

Specifies the auxiliary sheets ready for use on the printer.

The `document-sheets-ready` attribute must contain a value corresponding to the value of the `document-sheets` attribute of a job to be printed on this printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	None doc-set-start-copies-separate

A.2.40 **document-sheets-supported**

Specifies the auxiliary sheets supported by this printer.

The `document-sheets-supported` attribute must contain a value corresponding to the value of the `document-sheets` attribute of a job submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value

Settable	Yes
Valid values	None doc-set-start-copies-separate

A.2.41 document-state

Identifies the state of the document.

Objects	Document
M/S	Single value
Settable	No
Valid values	Transfer-pending, pending, processing, completed, printing

A.2.42 enabled

Indicates whether the specified object is enabled to accept print requests. This attribute is set with pdenable/pddisable. When an object is created, it is disabled by default.

The default value is disabled.

Objects	Printer (logical and physical) Queue Server (spooler and supervisor)
M/S	Single value
Settable	Yes (via pdenable and pddisable)
Valid values	True or yes (enabled) False or no (disabled)

A.2.43 events-supported

Specifies the event types and event classes supported by the server.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Multi-value
Settable	No
Valid values	Refer to Appendix C for a list of valid values.

A.2.44 excluded-filters

Disallows the use of certain translation filters for a particular printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.45 extended-lpd-job-identifiers

Specifies that an outbound gateway printer should use extended lpd job numbers when communicating to an external HP Tru64 UNIX lpd print queue, when set to yes. This extends the maximum outgoing job number from 999 to 999999, which reduces the chance of job overflow or job loss on the target server. However, it does so at the expense of compliance with LPD protocol as defined by RFC1179.

Objects	Printer (physical)
M/S	Single
Settable	Yes
Valid values	Boolean

A.2.46 file-reference-is-local-only

Specifies whether the server using the file-reference transfer method is allowed to access non-local document files.

Objects	Server (spooler and supervisor)
M/S	Single value

Settable	No
Valid values	True or yes

A.2.47 filter

Specifies the selection criteria to be used among candidate object_instances in the operand.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	Text string
Comments	

A.2.48 filter-definition

Defines a program as a filter and contains the information needed to invoke the program.

Objects	Server (supervisor only)
M/S	Multi-value
Settable	Yes
Valid values	See table

A.2.49 finishing

Specifies a finishing process to be applied to the document.

Destination logical and physical printers must contain the specified document's finishing value as a value of their finishings-supported attribute. The physical printer must also contain the specified document's finishing value as a value of its finishings-ready attribute.

Objects	Document Initial-value-document
---------	------------------------------------

M/S Single value

Settable Yes

Valid values

Table A–5: finishing

Values	
bind	staple
cover	staple-bottom-left
edge-stitch	staple-bottom-right
punch	staple-top-left
saddle-stitch	staple-top-right

A.2.50 finishings-ready

Identifies the per-document finishings ready on the printer.

The `finishings-ready` attribute must contain a value corresponding to the value of the `finishing` attribute of a document to be printed on this printer.

Objects Printer (physical only)

M/S Multi-value

Settable Yes

Valid values See finishing table

A.2.51 finishings-supported

Identifies the per-document finishings supported on the printer.

The `finishings-supported` attribute must contain a value corresponding to the value of the `finishing` attribute of a document submitted to this printer.

Objects Printer (logical and physical)

M/S Multi-value

Settable Yes

Valid values	See finishing table
--------------	---------------------

A.2.52 fonts-ready

Identifies the font resources ready on the printer.

On job submission, the spooler checks the font specified for a document against the logical printer's `fonts-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `fonts-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.53 fonts-supported

Identifies the font resources supported by the printer.

On job submission, the spooler checks the font specified for a document against the logical printer's `fonts-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `fonts-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.54 footer-text

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the text that is to be printed on the last line of each page.

Because of its use with simple-text format, `footer-text` is typically part of a simple-text translation filter as defined with the attribute `filter-definition`.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes

A.2.55 header-text

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the text that is to be printed on the first line of each page.

Because of its use with simple-text format, `header-text` is typically part of a simple-text translation filter as defined with the attribute `filter-definition`.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.56 headings

Specifies whether column headings should be included on output of requested attributes.

Objects	N/A
M/S	Single value

Settable	Yes
Valid values	False or no True or yes

A.2.57 highlight-colour

Sets the highlight printing color for the document.

Destination logical and physical printers must contain the specified document's `highlight-colour` value as a value of their `highlight-colours-supported` attribute. The physical printer must also contain the specified document's `highlight-colour` value as a value of its `highlight-colours-ready` attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Red, blue, green, cyan, magenta, yellow, cardinal, royalblue, ruby, violet, black, or name

A.2.58 highlight-colour-mismatch-action

Determines how the print system handles highlight color jobs when there is a mismatch between the color specified for the document and the highlight color supported or ready at the printer (`highlight-colours-supported` and `highlight-colours-ready` attributes).

When the value is `abort`, the spooler rejects the document/job if the:

- matching highlight color is not supported
- matching highlight color is supported but is not ready

When the value is `ignore`, the spooler ignores the highlight color mismatch and continues to accept and schedule the document/job for printing.

When the value is `operator`, operator intervention is required to resolve the mismatch. The spooler:

- rejects the document or job if the matching highlight color is not supported

- accepts but does not schedule the document or job if the matching highlight color is supported but is not ready

When no value is specified, the spooler:

- rejects the document or job if the matching highlight color is not supported
- accepts but does not schedule the document or job if the matching highlight color is supported but is not ready

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Abort, ignore, operator

A.2.59 highlight-colour-rendering-algorithm

Sets the highlight color rendering algorithm for the document.

Destination logical and physical printers must contain the specified document's `highlight-colour-rendering-algorithm` value as a value of their `highlight-colour-rendering-algorithms-supported` attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Automatic, colourToHighlight, colourTables, presentation, pictorial

A.2.60 highlight-colour-rendering-algorithms-supported

Indicates the highlight color rendering algorithms supported on this printer.

The `highlight-colour-rendering-algorithms-supported` attribute must contain a value corresponding to the value of the

highlight-colour-rendering-algorithm of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Automatic, colourToHighlight, colourTables, presentation, pictorial

A.2.61 highlight-colours-ready

Indicates the values of highlight colors ready on this printer.

The highlight-colours-ready attribute must contain a value corresponding to the value of the highlight-colour attribute of a document to be printed on this printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	Red, blue, green, cyan, magenta, yellow, cardinal, royalblue, ruby, violet, black, or name

A.2.62 highlight-colours-supported

Indicates the values of highlight colors supported on this printer.

The highlight-colours-supported attribute must contain a value corresponding to the value of the highlight-colour attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Red, blue, green, cyan, magenta, yellow, cardinal, royalblue, ruby, violet, black, or name

A.2.63 highlight-mapping-colour

The highlight-mapping-colour attribute sets the specified color to be the reference color.

Destination logical and physical printers must contain the specified document's highlight-mapping-colour value as a value of their highlight-mapping-colours-supported attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Red, blue, green, cyan, magenta, yellow cardinal, royalblue, ruby, violet, black, or name

A.2.64 highlight-mapping-colours-supported

Indicates the values of highlight colors supported on this printer that can be used as reference colors.

The highlight-mapping-colours-supported attribute must contain a value corresponding to the value of the highlight-mapping-colour attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Red, blue, green, cyan, magenta, yellow, cardinal, royalblue, ruby, violet, black, or name

A.2.65 hold-jobs-interrupted-by-printer-failure

Specifies whether jobs returned to the spooler after a restart should be put in the held (true or yes) or pending (false or no) state.

Objects	Printer (logical only) Server (spooler only)
---------	---

M/S	Single value
Settable	Yes
Valid values	True or yes False or no

A.2.66 initial-value-document

Identifies an initial-value-document object that contains default document attributes to be used when constructing the document object during print job submission.

The document's initial-value-document takes precedence over the printer's initial-value-document.

Objects	Document
M/S	Single value
Settable	Yes (only at job submission)
Valid values	Name of existing initial-value-document

A.2.67 initial-value-document-identifier

Uniquely identifies an initial-value-document object.

Objects	Initial-value-document
M/S	Single value
Settable	Yes (only at initial-value-document creation)
Valid values	

A.2.68 initial-value-job

Identifies an initial-value-job object that contains default job attributes to be used when constructing the job object during print job submission.

The job's initial-value-job takes precedence over the printer's initial-value-job.

Objects	Job
---------	-----

M/S	Single value
Settable	Yes (only at job submission)
Valid values	Name of existing initial-value-job

A.2.69 initial-value-job-identifier

Uniquely identifies an initial-value-job object.

Objects	Initial-value-job
M/S	Single value
Settable	Yes (only at initial-value-job creation)
Valid values	

A.2.70 input-trays-medium

Identifies the medium in each input tray of the printer. Each input tray object identifier should appear only once in the values of the attribute (one medium per tray). However, medium identifiers may appear several times (same medium in multiple trays).

Destination logical and physical printers must contain the specified document's input-trays-medium value as a value of their input-trays-supported and media-supported attributes. The physical printer must also contain the specified document's input-trays-medium value as a value of its input-trays-ready and media-ready attributes.

Examples:

input-trays-medium=top:a

"input-trays-medium='top:na-letter-white 'bottom:na-legal-white"

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	For input tray: Top, middle, bottom, envelope, manual, large-capacity, main, side

For medium: Refer to the valid values of the `default-medium` attribute.

A.2.71 `input-trays-ready`

Identifies the input tray ready to be used on this printer.

The `input-trays-ready` attribute must contain a value corresponding to the value of the `default-input-tray` attribute of a document to be printed on this printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	Top, middle, bottom, envelope, manual, large-capacity, main, side

A.2.72 `input-trays-supported`

Identifies the input trays supported on this printer.

The `input-trays-supported` attribute must contain a value corresponding to the value of the `default-input-tray` attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	Top, middle, bottom, envelope, manual, large-capacity, main, side

A.2.73 `intervening-jobs`

Indicates the number of jobs to be printed before this job will be scheduled. It is set to 0 (zero) when the job begins printing.

Objects	Job
M/S	Single value

Settable	No
Valid values	Number equal to or greater than 0

A.2.74 **job-attributes-visible-to-all**

Specifies the list of job and document attributes that a non-owner of the job will be able to see with the pdls operation. This can be set by an administrator. By default, only intervening jobs are visible.

Objects	Server (spooler and supervisor)
M/S	Multi-value
Settable	Yes
Valid values	

A.2.75 **job-comment**

Supplies a human readable string for a print job.

If job start sheets are in use by way of the job-sheets attribute, the value of the job-comment attribute prints on job start sheets. This is the only attribute that is printed on the job sheet.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	

A.2.76 **job-completion-period**

Specifies the amount of time the spooler maintains job objects after jobs are completed and retained. This is different from job retention because the document files are not kept. When the retention period is over and the completion period has begun, a job can not be resubmitted for re-print.

Objects	Server (spooler)
M/S	Single value

Settable	Yes
Valid Values	Delta time

A.2.77 **job-copies**

Specifies the number of copies of the job to be printed.

The product of `job-copies` and `copy-count` should not exceed the value of the logical or physical printer's `maximum-copies-supported` attribute. If it does, the spooler rejects the job.

The `job-copies` and `output-bin` client attributes are part of the `results-profile` attribute. The `results-profile` attribute is supported but is not visible to the user. Its value is specified via the `job-copies` and `output-bin` attributes.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	Number greater than 1

A.2.78 **job-copies-completed**

Indicates the number of job copies that have been printed.

Objects	Job
M/S	Single value
Settable	No
Valid values	Number equal to or greater than 0

A.2.79 **job-discard-time**

Specifies the calendar date and time of day at which a job should be discarded, regardless of whether it has printed. When the date and time of day at which a job should be discarded occurs, the spooler sets the job's `job-retention-period` attribute to zero, regardless of the job state. The spooler then deletes the job.

The `job-retention-period` attribute specifies a lower bound on how long the spooler retains a job, its attributes, and data. The `job-discard-time` attribute specifies an upper bound on retention, regardless of whether the job has printed.

To specify that job budget should be deleted if it does not print by August 25, 1997, use:

```
pdmod -x "job-discard-time=25:08:1997:17:00:00" budget
```

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	Values entered in the format dd:mm:yyyy:HH:MM:SS

A.2.80 **job-fault-count**

Indicates the number of times the job is returned by the supervisor due to a crash of the spooler or supervisor.

Objects	Job
M/S	Single value
Settable	No
Valid values	Number equal to or greater than 0

A.2.81 **job-hold**

Specifies whether a print job is a candidate for being scheduled for printing. The default value of this attribute is false or no.

When the value is false or no, the spooler does not hold the job from being scheduled for printing, unless there are other reasons (see the `current-job-state` and `job-state-reasons` attributes).

When the value is true or yes, the spooler holds the job from being scheduled for printing. Specifically:

- the value `job-hold-set` is added to the job's `job-state-reasons` attribute, and

- the value held is added to the job's `current-job-state` attribute.

If the `job-hold` attribute is set to true or yes, it remains on hold indefinitely until one of following events takes place:

- You set the `job-hold` attribute to false or no
- The `job-discard-time` that you previously set passes
- You cleaned the associated queue or spooler. The spooler deletes all jobs in the queue or spooler, including jobs in the held state.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	True or yes False or no

A.2.82 **job-identifier**

A spooler-generated value unique to the spooler (not necessarily unique in a distributed environment).

Objects	Job
M/S	Single value
Settable	No
Valid values	Text string of up to 255 characters

A.2.83 **job-identifier-on-client**

A client job identifier; intended for jobs submitted from legacy servers.

Objects	Job
M/S	Single value
Settable	Yes (only at job submission)
Valid values	Text string of up to 255 characters

A.2.84 **job-message-from-administrator**

Supplies a human readable string intended to indicate to users the reason for some action taken on a job.

The `-m` option can also be used to attach a human readable message to a job. Users can retrieve the message with the `pdls` utility.

The `-m` option is equivalent to including the `job-message-from-administrator` attribute with a job.

If job start sheets are in use via the `job-sheets` attribute, the value of the `job-message-from-administrator` attribute prints on job start sheets.

Objects	Job
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.85 **job-name**

Supplies a human readable string for a print job. This string may be printed on job start sheets or used in notification and logging messages. If you do not specify `job-name`, it defaults to the file name or to the name of the first file in a multi-document job.

If job start or end sheets are in use via the `job-sheets` attribute, the value of the `job-name` attribute prints on job start or end sheets.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.86 **job-originating-host**

Contains the name of the host from which the print job originated. The BSD inbound gateway uses this attribute.

If job start sheets are in use via the `job-sheets` attribute, the value of the `job-originating-host` attribute prints on job start sheets.

Objects	Job
M/S	Single value
Settable	No
Valid values	Text string of up to 255 characters

A.2.87 job-originator

Supplies the name of the human originator of the print request; generally the same as job owner. It differs if the job was submitted by the originator on behalf of the owner.

Objects	Job
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.88 job-owner

Supplies the name of the human owner of the print job.

The value of `job-owner` will often be the same as `job-originator`. The `job-owner` attribute is different from `job-originator` when a job is submitted by the originator on behalf of the owner.

During the authentication process, the spooler determines job ownership with the `job-owner` attribute.

Objects	Job
M/S	Single value
Settable	Yes (only at job submission)
Valid values	Text string of up to 4095 characters

A.2.89 job-priority

Specifies a print job scheduling priority value. Jobs with higher priorities are scheduled to print before jobs with lower priorities.

Objects	Job Initial-value-job
M/S	Single value
Settable	Yes
Valid values	Integer values 1–100

A.2.90 job-print-after

Specifies the calendar date and time after which the job can be scheduled.

If the date is in the future:

- the job's `current-job-state` is set to held
- `job-print-after-specified` is added to the job's `job-state-reasons`

When the specified time has passed:

- the job's `current-job-state` is set to pending so the job becomes a candidate for being scheduled for printing

To specify a print after time for a job, use:

```
pdpr -x "job-print-after=date_and_time" [filename]
```

or

```
pdmod -x "job-print-after=date_and_time" [spooler_name:] job_identifier
```

or

```
pdset -c job -x "job-print-after=date_and_time" [spooler_name:] job_identifier
```

Objects	Initial-value-job Job
---------	--------------------------

M/S Single value

Settable Yes

Valid values Values entered in the format dd:mm:yyyy:HH:MM:SS

A.2.91 job-promote-time

The time when the job was promoted.

Objects	Job
---------	-----

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values

A.2.92 job-retention-period

Specifies the minimum amount of time following the completion of a job that the spooler will retain a job, its attributes, and data.

The `job-retention-period` attribute specifies a lower bound on how long the spooler retains a job, its attributes, and data. The `job-discard-time` attribute specifies an upper bound on retention, regardless of whether the job has printed.

In addition to providing status information to a user after a job has printed, the `job-retention-period` attribute provides the mechanism for retaining the job's document data after it has been printed. This enables the job to be printed again, possibly with modified attributes.

If a job has a value specified for its `job-discard-time` attribute, the spooler sets the `job-retention-period` to zero when the `job-discard-time` occurs.

Objects	Initial-value-job Job
---------	--------------------------

M/S	Single value
-----	--------------

Settable	Yes
----------	-----

Valid values	Values entered in the format [HH:]mm[:SS]
--------------	---

A.2.93 job-sheets

Specifies the auxiliary sheets the supervisor will print with the job.

If you specify a value of `job-copy-start`, a start sheet prints in front of every copy of the job.

If you specify a value of `job-copy-wrap`, a start sheet and end sheet prints for every copy of the job.

Destination logical and physical printers must contain the specified job's `job-sheets` value as a value of their `job-sheets-supported` attribute. The physical printer must also contain the specified job's `job-sheets` value as a value of its `job-sheets-ready` attribute.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	<i>none</i> <i>job-copy-start</i> <i>job-copy-wrap</i>

A.2.94 **job-sheets-ready**

Specifies the auxiliary sheets ready on this printer.

The `job-sheets-ready` attribute must contain a value corresponding to the value of the `job-sheets` attribute of a job to be printed on this printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	<i>none</i> <i>job-copy-start</i> <i>job-copy-wrap</i>

A.2.95 **job-sheets-supported**

Specifies the auxiliary sheets supported by this printer.

The `job-sheets-supported` attribute must contain a value corresponding to the value of the `job-sheets` attribute of a job submitted to this printer.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
Settable	Yes
Valid values	none job-copy-start job-copy-wrap

A.2.96 job-state-message

Gives additional text information about a job's state. The reference supervisor places user-readable text in this attribute when a job is completed with errors or is aborted.

Objects	Job
M/S	Single value
Settable	No
Valid values	See table

A.2.97 job-state-reasons

Identifies the reasons that the job is in held, terminating, retained, or completed state. If the job is not in any of these states, this attribute is set to empty.

Objects	Job
M/S	Multi-value
Settable	No
Valid values	

Table A–6: job-state-reasons

Values	
aborted-by-system	job-hold-set
cancelled-by-operator	job-print-after-specified
cancelled-by-user	logfile-pending

Table A–6: job-state-reasons (cont.)

Values	
completed-with-errors	logfile-transferring
completed-with-warnings	required-resource-not-ready
documents-needed	successful-completion

A.2.98 job-submission-complete

Specifies whether all documents in the print job have been submitted, indicating the job has been closed.

Objects	Job
M/S	Single value
Settable	No
Valid values	True or yes False or no

A.2.99 left-margin

Provides control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the distance in characters between the left edge of the logical page and the left edge of the text area when held in the intended reading position.

(Some document formats, such as PostScript, specify the margin as part of the document content, simple-text does not.)

The value `left-margin=12` specifies a left margin of twelve characters.

Because of its use with simple-text format, left-margin is typically part of a simple-text translation filter as defined with the `filter-definition` attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes

Valid values	Any positive number
--------------	---------------------

A.2.100 length

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the length of the text area in characters.

(Some document formats, such as PostScript, specify the margin as part of the document content; simple-text does not.)

The value length=60 specifies a text area length of sixty lines.

Because of its use with simple-text format, length is typically part of a simple-text translation filter as defined with the filter-definition attribute .

Objects	Document Initial-value-document
---------	------------------------------------

M/S	Single value
-----	--------------

Settable	Yes
----------	-----

Valid values	Any positive number
--------------	---------------------

A.2.101 locale

Contains a locale specification that the server uses when performing internationalization tasks such as constructing error/notification/logging messages. It is set by the server from the locale environment variable.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	
--------------	--

A.2.102 locales-supported

Contains the list of locales supported by the server.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Multi-value
-----	-------------

Settable	No
----------	----

Valid values	
--------------	--

A.2.103 logical-printers-ready

Identifies the logical printers ready on this queue or spooler; it is empty on a supervisor. This attribute is updated whenever a logical printer is enabled or disabled.

Objects	Queue Server (spooler only)
---------	--------------------------------

M/S	Multi-value
-----	-------------

Settable	No
----------	----

Valid values	The names of the logical printers that are ready.
--------------	---

A.2.104 logical-printers-supported

Identifies the logical printers supported on this queue or spooler; it is empty on a supervisor.

Objects	Queue Server (spooler only)
---------	--------------------------------

M/S	Multi-value
-----	-------------

Settable	No
----------	----

Valid values	Text string of up to 4095 characters
--------------	--------------------------------------

A.2.105 max-user-job-priority

The maximum priority value that a user can set. Operators and administrators can set a job's priority to any value within the range of 1– 100.

Objects	Printer (logical)
---------	-------------------

M/S	Single value
-----	--------------

Settable	Yes
Valid values	Integer values 1–100

A.2.106 maximum-copies-supported

Indicates the maximum number of copies of a document that can be printed on this printer. This includes document copies specified via the attributes `copy-count` and `job-copies`.

This attribute can be used to limit the number of copies of a job that can be printed.

Objects	Printer (logical and physical)
M/S	Single value
Settable	Yes
Valid values	Number equal to or greater than 0

A.2.107 maximum-number-of-printers-supported

Specifies how many actual printers the supervisor will drive. Attempts to create physical printers on the supervisor after this limit has been met will fail.

Objects	Server (supervisor only)
M/S	Single value
Settable	No
Valid values	Number equal to or greater than 0

A.2.108 maximum-printer-speed

Specifies the maximum speed of the printer in pages per minute.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes

Valid values	Number greater than 1
--------------	-----------------------

A.2.109 media-ready

Identifies the media currently ready to be used on this printer.

On job submission, the spooler checks the medium specified for a document against the logical printer's `media-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `media-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (physical only)
---------	-------------------------

M/S	Multi-value
-----	-------------

Settable	Yes
----------	-----

Valid values	See <code>default-medium</code>
--------------	---------------------------------

A.2.110 media-supported

Identifies the media supported by the printer

On job submission, the spooler checks the medium specified for a document against the logical printer's `media-supported` attribute. If there is no match, the spooler rejects the print request.

In addition, the spooler checks for a match with the physical printer's `media-ready` attribute. If there is no match, the spooler leaves the job pending.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
-----	-------------

Settable	Yes
----------	-----

Valid values	See <code>default-medium</code>
--------------	---------------------------------

A.2.111 message

Supplies a human readable string intended to indicate to users something about an object's state. This attribute may be used to indicate to users why an object is unavailable or when it is expected to be ready.

The -m option can also be used to attach a human readable message to a job. Users can retrieve the message with the pdls utility.

The -m option is equivalent to including the message attribute with initial-value-document, initial-value-job, printer, queue, and server objects.

Objects	Initial-value-document
	Initial-value-job
	Printer (logical and physical)
	Queue
	Server (spooler and supervisor)
M/S	Single value
Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.112 modification-filter

Controls modification filtering. The value of the attribute is the name of the filter to be applied to the document data prior to translation filtering.

Objects	Document
M/S	Single value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.113 modify-individual-document-supported

Indicates whether a server is capable of modifying individual documents in a multiple document job.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
Settable	No
Valid values	True or yes False or no

A.2.114 multiple-documents-supported

Indicates if the object is capable of handling multiple document jobs.

Objects	Server (spooler and supervisor)
M/S	Single value
Settable	No
Valid values	True or yes False or no

A.2.115 native-document-formats-ready

Identifies the document formats supported directly by printer hardware.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	

A.2.116 no-filtering

Disables translation and modification filtering.

Objects	Document
M/S	Single value
Settable	Yes
Valid values	True or yes (no filtering) False or no

A.2.117 notification-delivery-methods-ready

Identifies the delivery methods ready on this server for event notification.

Objects	Server (spooler and supervisor)
M/S	Multi-value
Settable	No
Valid values	electronic-mail notification-service

A.2.118 notification-delivery-methods-supported

Identifies the delivery methods supported on this object for event notification.

Objects	Server (spooler and supervisor)
M/S	Multi-value
Settable	No
Valid values	electronic-mail notification-service

A.2.119 notification-profile

Specifies the events on whose occurrence users will be notified. Also specifies how the notifications are to be delivered.

Only administrators can specify `notification-profile` for printer, queue, and server objects with the `pdcreate` and `pdset` operations. End users can specify `notification-profile` for a job with the `pdmod`, `pdpr`, and `pdset` operations.

Events can be specified by class or by specific events. If the *notification-profile* attribute specifies a class, the corresponding notification service reports all events of that class. Refer to Appendix C for a list of classes and events.

The print system supports three notification delivery methods: electronic-mail (and the CLI alias `email`), notification-service (and the CLI alias `message`), and none.

Objects	Job Printer (logical and physical)
---------	---------------------------------------

	Queue
	Server (spooler and supervisor)
M/S	Multi-value
Settable	Yes
Valid values	

A.2.120 number-of-documents

Indicates the number of documents in the job.

Objects	Job
M/S	Single value
Settable	No
Valid values	Number equal to or greater than 0

A.2.121 number-of-printers-supported

Specifies the number of actual printers the administrator has set the supervisor to control. Attempts to set the value of number-of-printers-supported to a value exceeding the limit set by maximum-number-of- printers-supported will fail.

Objects	Server (supervisor only)
M/S	Single value
Settable	Yes
Valid values	Number equal to or greater than 0

A.2.122 number-pages

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute indicates whether to print page numbers on the document pages.

Because of its use with simple-text format, `number-pages` is typically part of a simple-text translation filter as defined with the attribute `filter-definition`.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	True or yes False or no

A.2.123 `number-up`

Specifies the number of page images to impose on a single instance of a selected medium.

An empty attribute value is the same as a value of none or 0 (zero)

Together with a document's orientation, `number-up` controls the translation, scaling, and rotation of page images. Content orientation refers to the orientation of the actual print data, given the relative dimensions of the area for the page image on the medium. Portrait orientation specifies that, from a human reader's point of view, the height of the image area is longer than the width; in landscape orientation, the width is longer than the height.

For example: For 8-1/2-inches wide x 11-inches high media and with `number-up=2` in portrait orientation, the image area for the medium is divided into two along the short axis and then rotated 90 degrees or 270 degrees, such that two page images appear side by side. The height of each image area is longer than the width. The physical orientation of the medium, however, has a landscape orientation (11-inches wide x 8-1/2-inches high).

For `number-up=2` in landscape orientation, the image area is also divided into two along the short axis but with no rotation (or 180 degree rotation), such that the two image areas appear one on top of the other. The height of each image area is shorter than the width. The physical orientation of the medium has a portrait orientation (8-1/2-inches wide x 11-inches high).

Objects	Document Initial-value-document
M/S	Single value

Settable	Yes
----------	-----

Valid values	0 1 2 4
--------------	------------------

A.2.124 numbers-up-supported

Identifies the number-up values supported by this printer.

An empty attribute value is the same as a value of none or 0 (zero).

The settings shown in the following examples are equivalent:

numbers-up-supported=1 2 4

numbers-up-supported=simple-1-up simple-2-up simple-4-up

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
-----	-------------

Settable	Yes
----------	-----

Valid values	none or 0 simple-1-up or 1 simple-2-up or 2 simple-4-up or 4
--------------	---

A.2.125 object-class

Identifies the object class for this object.

Objects	Document Initial-value-document Initial-value-job Job Printer (logical and physical) Queue Server (spooler and supervisor)
---------	--

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values

A.2.126 object-classes-supported

Identifies the object classes supported by this server.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Multi-value
-----	-------------

Settable	No
----------	----

Valid values

A.2.127 octet-count

Specifies the size of the document in octets.

Objects	Document
---------	----------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values

A.2.128 output

Identifies the output processing for the media on which the document is to be printed.

Destination logical and physical printers must contain the specified document's *output* value as a value of their *outputs-supported* attribute. The physical printer must also contain the specified document's output value as a value of its *outputs-ready* attribute.

Objects	Document Initial-value-document
---------	------------------------------------

M/S	Single value
-----	--------------

Settable	Yes
Valid values	Page-collate, no-page-collate, decollate, no-decollate, burst, no-burst, stacking-default

A.2.129 output-bin

Specifies the printer output bin into which the job is placed.

Objects	Initial-value-job Job
M/S	Single value
Settable	Yes
Valid values	Top, middle, bottom, side, face-up, left, right, large, private, face-down, collator

A.2.130 output-bins-ready

Identifies the output bins ready to be used on this printer. The value of this attribute may be an OID, a name, or a number.

The output-bins-ready attribute must contain a value corresponding to the value of the output-bin attribute of a job to be printed on this printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	Top, middle, bottom, side, face-up, left, right, large, private, face-down, collator

A.2.131 output-bins-supported

Identifies the output bins supported on this printer. The value of this attribute may be an OID, a name, or a number.

The output-bins-supported attribute must contain a value corresponding to the value of the output-bins attribute of a job submitted to this printer.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Single value
Settable	Yes
Valid values	Top, middle, bottom, side, face-up, left, right, large, private, face-down, collator

A.2.132 outputs-ready

Identifies the output methods currently ready to be used on this printer.

The `outputs-ready` attribute must contain a value corresponding to the value of the `output` attribute of a document to be printed on this printer.

Objects	Printer (physical only)
M/S	Multi-value
Settable	Yes
Valid values	no-page-collate

A.2.133 outputs-supported

Identifies the output methods currently supported on this printer.

The *outputs-supported* attribute must contain a value corresponding to the value of the *output* attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	<i>no-page-collate</i>

A.2.134 page-media-select

Indicates that the specified pages will be printed on the identified media. Any page not specified in this attribute will be printed as per the *default-media* attribute.

The print system supports this attribute only for certain printers. Ask your system administrator for details.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	

A.2.135 page-order-received

Specifies the page order for which pages in the document have been formatted.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	<i>unknown</i> <i>first-to-last</i> <i>last-to-first</i>

A.2.136 page-select

Specifies one or more sequences of pages to be printed.

Destination logical and physical printers must support the same type of page selection as the document via the printer *page-select-supported* attribute.

The pageSelectSyntax allows two types of page identifiers to specify the page selection:

- Numeric (positive integer values - numbers greater than 0) to specify the nominal page number identifying the in-sequence number in the document in the order that the pages are presented to the spooler, starting with 1.

Example: page-select=15

- Alphanumeric page number as indicated by page identifiers of the document format.

Example: page-select=chapter1

The syntax allows page range selections.

- Examples:

page-select=15:21

page-select="chapter 1:chapter 5"

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	<i>numeric</i> <i>alphanumeric</i>

A.2.137 page-select-supported

Indicates the types of page identifiers supported by the printer. This attribute applies only for the outbound gateway.

The values for *page-select-supported* must include the value of *page-select* used by a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	<i>numeric</i> <i>alphanumeric</i>

A.2.138 physical-printers-ready

Identifies the physical-printers ready on this object. On a spooler, the attribute refers to physical printers that are associated with all the spooler's queues. On a supervisor, the attribute refers to all the supervisor's printers. On a queue, the attribute refers to printers associated with the queue. This attribute is only used for scheduling on queues. It is maintained by the system and updated when physical printers are enabled/disabled.

Objects	Queue Server (spooler and supervisor)
---------	--

M/S	Multi-value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.139 **physical-printers-requested**

Identifies the physical printer or printers that can be the only candidates for printing the job.

The destination logical printer must contain the specified job's *physical-printers-requested* values as values of its *physical-printers-supported* attribute.

Objects	Initial-value-job Job
M/S	Multi-value
Settable	Yes
Valid values	Text string of up to 255 characters

A.2.140 **physical-printers-supported**

Identifies the physical-printers supported on this object. See *physical-printers-ready*.

Objects	Queue Server (spooler and supervisor)
M/S	Multi-value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.141 **plex**

Indicates whether the page images should be conditioned for eventual one or two sided printing. In other words, printing that will take into account extra space for binding margins.

The attribute also specifies whether the relative orientation between consecutive page images is to be altered (as with *tumble*, or head-to-toe printing).

The print system supports this attribute only for certain printers. Ask your system administrator for details.

Destination logical and physical printers must contain the specified document's *plex* value as a value of their *plexes-supported* attribute.

Duplex and *tumble* are both two-sided printing. The difference between the two is (for portrait or landscape orientation):

- For *duplex*, the binding edge is parallel to the y-axis
- For *tumble*, the binding edge is parallel to the x-axis

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	<i>simplex</i> <i>duplex</i> <i>tumble</i>

A.2.142 **plexes-supported**

Identifies the plexes supported by this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid values	<i>simplex</i> <i>duplex</i> <i>tumble</i>

A.2.143 **previous-job-state**

Identifies the state of the job before the last state change.

Objects	Job
M/S	Single value
Settable	No
Valid values	<i>unknown, pre-processing, pending, processing, retained, held, paused, terminating, completed, printing</i>

A.2.144 printer-address

A supervisor-specific string that tells the supervisor how to connect to the printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	Text string or number greater than 0

A.2.145 printer-associated-host

Identifies the host name of a direct-connected physical printer.

Objects	Printer (physical)
M/S	Single
Settable	Yes
Valid Value	Test string

A.2.146 printer-associated-printers

Identifies the physical/logical printers associated with this logical/physical printer. This attribute is updated when the printer's *associated-queue* attribute is modified. It is checked for end-to-end consistency when the printer is enabled.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.147 printer-baud-rate

Baud rate for the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	<i>300, 1200, 2400, 4800, 9600, 19200, 38400</i>

A.2.148 printer-connection-level

Indicates the level of connectivity supported by the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	<i>0 = Not specified (use system default)</i> <i>1 = Output only data (unidirectional)</i> <i>2 = Output only data (status bits returned)</i> <i>3 = Bidirectional (without synchronized session control)</i> <i>4 = Bidirectional (with synchronized session control)</i> <i>5 = Printer session control</i>

A.2.149 printer-connection-method

Indicates how a printer is attached to a server host.

Objects	Printer (physical only)
M/S	Single value

Settable	Yes
Valid values	<i>serial, parallel, ip-socket, bsd, digital-printserver</i>

A.2.150 printer-connection-methods-supported

Indicates the connection methods supported by the connected printer.

Objects	Server (supervisor only)
M/S	Multi-value
Settable	No
Valid values	<i>serial, parallel, ip-socket, bsd, digital-printserver</i>

A.2.151 printer-creation-time

Stores the date and time when a printer object is created.

Objects	Printer
M/S	Single value
Settable	No
Valid Value	Generalized time

A.2.152 printer-data-bits

Identifies the data bits for the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	<i>5, 6, 7, 8</i>

A.2.153 printer-initial-value-document

Identifies an initial-value-document in the server for use on this logical printer.

This attribute is used when the document does not specify an `initial-value-document`.

Objects Printer (logical only)

M/S Single value

Settable Yes

Valid values

A.2.154 printer-initial-value-job

Identifies an `initial-value-job` in the server for use on this logical printer.

The *printer-initial-value-job* is used if the job does not specify an *initial-value-job*.

Objects Printer (logical only)

M/S Single value

Settable Yes

Valid values

A.2.155 printer-input-flow-control

Indicates the type of input flow control used by the connected printer.

Objects Printer (physical only)

M/S Single value

Settable Yes

Valid values *none, xoff, cts, dtr*

A.2.156 printer-locations

Identifies the location of the printer.

Objects Printer (physical only)

M/S Multi-value

Settable	Yes
Valid values	Text string of up to 4095 characters

A.2.157 printer-model

Identifies the make and model of the printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes (only at printer creation)
Valid values	Text string of up to 4095 characters

A.2.158 printer-multiple-copy-mode

Allows multiple copies of a document. This setting should only be used with printers that have a hard disk that can store the entire contents of a document. When set false, or not defined (the default), the supervisor sends document data to the printer for each requested copy.

Objects	Printer (physical)
M/S	Single value
Settable	Yes
Valid Value	Boolean

A.2.159 printer-name

Specifies a unique name for a printer.

Objects	Printer (logical and physical)
M/S	Single value
Settable	Yes (only at printer creation)
Valid values	Text string of up to 255 characters

A.2.160 printer-name-requested

Identifies the logical printer to which you are submitting a job. You may specify a logical printer via this attribute or via the -p switch in the pdpr command.

If you do not specify the -p switch, pdpr uses the logical printer identified by the value of the *printer-name-requested* attribute. If *printer-name-requested* is also not specified, pdpr uses the logical printer identified with the PDPRINTER environment variable.

If you specify both -p and *printer-name-requested* on the command line, pdpr uses the last logical printer name specified in the command line syntax.

If job start sheets are in use via the *job-sheets* attribute, the value of the *printer-name-requested* attribute prints on job start sheets.

Objects	Job
M/S	Single value
Settable	Yes (only at job submission)
Valid values	Text string of up to 255 characters

A.2.161 printer-output-flow-control

Identifies the output flow control used by the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	<i>none, xoff, cts, dtr</i>

A.2.162 printer-parity

Identifies the parity used by the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes

Valid values	<i>none, even, odd, mark, space</i>
--------------	-------------------------------------

A.2.163 printer-problem-message

Contains a message describing a problem. Use only with printers that produce a text string when there is a problem.

Objects	Printer (logical and physical)
M/S	Single value
Settable	No
Valid values	Text

A.2.164 printer-realization

Identifies if the printer is logical or physical. A printer created on a spooler is logical. A printer created on a supervisor is physical.

Objects	Printer (logical and physical)
M/S	Single value
Settable	No
Valid values	<i>logical</i> <i>physical</i>

A.2.165 printer-setup-module

Specifies a named module to be sent to the printer prior to printing the document. The module typically contains printer setup commands.

Objects	Document Initial-value-document
M/S	Multi-value
Settable	Yes
Valid Value	Test string

A.2.166 printer-state

Identifies the current state of the printer.

Objects	Printer (logical and physical)
M/S	Single value
Settable	No
Valid values	<i>unknown, idle, printing, needs-attention, paused, shutdown, timed-out, connecting-to-printer</i>

A.2.167 printer-stop-bits

Identifies the stop bits used by the connected printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid Value	<i>0, 1, 2</i>

A.2.168 printer-tcpip-port-number

Identifies the port number that the connected printer uses on a TCP/ IP socket connection.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	<i>1024 through 65535</i>

A.2.169 printer-timeout-period

Identifies the time period (in seconds) for which the server waits for a response from a printer before setting the printer's *printer-state* attribute to *timed-out*.

Although the *printer-timeout-period* attribute does not have a default value, the reference supervisor uses 300 seconds if no value has been specified. If an administrator enters 0 for the attribute value, then the supervisor does not monitor input/output activity on the printer.

Objects	Printer (physical only)
M/S	Single value
Settable	Yes
Valid values	Values entered in the format [HH:]mm[:SS]

A.2.170 printers-assigned

Indicates the physical printer to which the job was assigned. This attribute is set by the spooler at the time the job is sent to the supervisor.

If job start sheets are in use via the *job-sheets* attribute, the value of the *printers-assigned* attribute prints on job start sheets.

Objects	Job
M/S	Single value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.171 printers-ready

Identifies the logical/physical printers ready to be used on this physical/logical printer.

When you enable a logical printer with the *pdenable* operation, the associated spooler adds the name of the logical printer to the *printers-ready* attribute for all associated physical printers.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.172 queue-backlog-lower-limit

Lower bound limit for backlogged queue. When the number of pending jobs decreases to match the specified value of the lower bound limit, the queue is declared not backlogged, and the report-queue-not-backlogged event is generated.

Objects	Queue
M/S	Single value
Settable	Yes
Valid values	Integer

A.2.173 queue-backlog-upper-limit

Upper bound limit for backlogged queue. When the number of pending jobs increases to match the specified value of the upper bound limit, the queue is declared backlogged, and the warning-queue-backlogged event is generated.

Objects	Queue
M/S	Single value
Settable	Yes
Valid values	Integer

A.2.174 queue-backlogged-queue

Indicates whether a queue should be declared as disabled (unavailable) when backlogged.

Objects	Queue
M/S	
Settable	
Valid values	

A.2.175 queue-name

Identifies the name of the queue

Objects	Queue
M/S	Single value
Settable	Yes (only at queue creation)
Valid values	Text string of up to 255 characters

A.2.176 queue-problem-message

Contains a message that indicates when a queue is backlogged.

Objects	Queue
M/S	Single
Settable	No
Valid values	Text string

A.2.177 queues-supported

Lists the queues supported by the spooler. Automatically updated by creation and deletion of queues.

Objects	Server (spooler only)
M/S	Multi-value
Settable	No
Valid values	Text string of up to 255 characters

A.2.178 repeated-tab-stops

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the number of character spaces between tab stops.

Because of its use with simple-text format, *repeated-tab-stops* is typically part of a simple-text translation filter as defined with the attribute *filter-definition*.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Number greater than 0

A.2.179 requested-attributes

Identifies the attributes that should be included in an operation.

Objects	N/A
M/S	Multi-value
Settable	Yes
Valid values	

A.2.180 reset-printer

Indicates whether the printer should be reset between documents within a job (the printer is always reset between jobs).

This attribute causes the reset sequence to be sent to the printer after the document with which it is associated. For example, to condition a PostScript printer with font data, use a command such as the following:

```
pdpr -p lp1 -x "reset-printer=no" -f fonts.dat -x "reset-printer=yes" file.ps
```

Printing document auxiliary sheets requires a printer reset. So, if the job has a value for the attribute *document-sheets*, the printer will always be reset between documents regardless of the value of *reset-printer*.

Also, attributes that would cause the printer to be reconfigured (such as *sides*, *default-input-tray*, and *output-bin*) also require that the printer be reset. Therefore, if the document following a document with *reset-printer=no* specifies document attributes that are different, the server ignores the reset.

Objects	Document Initial-value-document
M/S	Single value

Settable	Yes
Valid values	<i>true</i> <i>yes</i> <i>false</i> <i>no</i>

A.2.181 results-profile

The *results-profile* attribute is supported but cannot be directly specified by a user. Instead, the following two client attributes are available for specifying *results-profile*:

- *job-copies* (*default=1*)
- *output-bin* (*no default*)

The supported client attributes are visible to the user; *results-profile* is not.

Objects	Initial-value-job Job
M/S	Multi-value
Settable	Yes (only via <i>job-copies</i> and <i>output-bin</i> attributes)
Valid values	

A.2.182 retention-period

Specifies the amount of time a server should keep a job in the retained state after the job has been terminated. This is the equivalent of the job object attribute *job-retention-period*.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	

A.2.183 right-margin

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the distance in characters between the right edge of the logical page and the right edge of the text area when held in the intended reading position.

(Some document formats, such as PostScript, specify the margin as part of the document content; simple-text does not.)

The value *right-margin=12* specifies a right margin of twelve characters. The actual distance is dependent on the size of the character set specified for the document.

Because of its use with simple-text format, *right-margin* is typically part of a simple-text translation filter as defined with the attribute *filter-definition*.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Any positive number

A.2.184 scope

Indicates whether document attributes are to be included on a job attributes list operation.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	0 = List only job attributes 1 = List job and document attributes

A.2.185 server-cluster-member

Contains the name of the server host. If the server is running on a cluster, this attribute holds the default cluster alias.

Objects	Server
M/S	Single value
Settable	No

Valid values	Text string of up to 255 characters
--------------	-------------------------------------

A.2.186 server-hostname

Contains the name of the server host. If the server is running on a cluster, this attribute holds the default cluster alias.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	Text string of up to 255 characters
--------------	-------------------------------------

A.2.187 server-name

Identifies a server. An administrator specifies the server name when creating the server. Once the server name is specified, the system does not allow any user to change it.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
-----	--------------

Settable	Yes (only at server creation)
----------	-------------------------------

Valid values	Text string of up to 255 characters
--------------	-------------------------------------

A.2.188 server-state

Specifies the current state of the specified server.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	<i>ready</i> <i>paused</i> <i>terminating</i>
--------------	---

A.2.189 server-type

Specifies the type of server.

Objects	Server (spooler and supervisor)
---------	---------------------------------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	<i>spooler, supervisor, notification-server, proto-server</i>
--------------	---

A.2.190 sides

Specifies if the job should be printed on one or two sides of the paper.

The default is determined by the printer.

Destination logical and physical printers must contain the value of the specified document's *sides* attribute as a value of their *sides-supported* attribute. The physical printer must also contain the value of the specified document's *sides* attribute as a value of its *sides-ready* attribute.

Objects	Document Initial-value-document
---------	------------------------------------

M/S	Single value
-----	--------------

Settable	Yes
----------	-----

Valid values	<i>1</i> <i>2</i>
--------------	----------------------

A.2.191 sides-ready

Indicates the values of sides ready on this printer.

The *sides-ready* attribute must contain a value corresponding to the value of the *sides* attribute of a document to be printed on this printer. The default is determined by the printer.

Objects	Printer (physical only)
---------	-------------------------

M/S	Multi-value
-----	-------------

Settable	Yes
----------	-----

Valid values	1
	2

A.2.192 sides-supported

Indicates the values of sides supported by this printer.

The *sides-supported* attribute must contain a value corresponding to the value of the *sides* attribute of a document submitted to this printer. The default is determined by the printer.

Objects	Printer (logical and physical)
---------	--------------------------------

M/S	Multi-value
-----	-------------

Settable	Yes
----------	-----

Valid values	1
	2

A.2.193 started-printing-time

Indicates the time at which this job started printing.

Objects	Job
---------	-----

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	
--------------	--

A.2.194 state

Identifies the current state of the queue.

Objects	Queue
---------	-------

M/S	Single value
-----	--------------

Settable	No
----------	----

Valid values	<i>ready</i> <i>paused</i>
--------------	-------------------------------

A.2.195 style

Indicates the format in which data specified with the `-r requested_attributes` option is written to standard output.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	<i>column</i> <i>line</i>

A.2.196 submission-time

Indicates the time at which the latest print request for this job was submitted. This value is changed by *pdresubmit*.

If job start sheets are in use via the *job-sheets* attribute, the value of the *submission-time* attribute prints on job start sheets.

Objects	Job
M/S	Single value
Settable	No
Valid values	

A.2.197 thickening-specification

Sets the darkening parameter for the entire document or for bitmap images in the document.

Destination logical and physical printers must contain the specified document's *thickening-specification* value as a value of their *thickening-supported* attribute.

Objects	Document Initial-value-document
---------	------------------------------------

M/S	Single value
Settable	Yes
Valid values	<i>entire-document</i> <i>bitmap-images</i>

A.2.198 thickening-supported

Indicates darkening specification algorithms supported on this printer.

The *thickening-supported* attribute must contain a value corresponding to the value of the *thickening-specification* attribute of a document submitted to this printer.

Objects	Printer (logical and physical)
M/S	Multi-value
Settable	Yes
Valid Value	<i>entire-document</i> <i>bitmap-images</i>

A.2.199 time-limit

Specifies the frequency in seconds in which `pdls` writes output.

Objects	N/A
M/S	Single value
Settable	Yes
Valid values	

A.2.200 top-margin

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the distance in lines between the top edge of the logical page and the top edge of the text area when held in the intended reading orientation.

(Some document formats, such as PostScript, specify the margin as part of the document content; simple-text does not.)

The value *top-margin=6* specifies a top margin of six character lines. The actual distance is dependent on the size of the character set specified for the document.

Because of its use with simple-text format, *top-margin* is typically part of a simple-text translation filter as defined with the attribute *filter-definition*.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Any negative or positive number

A.2.201 total-job-octets

Indicates the size of the job in bytes (including copies). This is computed by the spooler from the document attribute *octet-count*.

Objects	Job
M/S	Single value
Settable	No
Valid values	

A.2.202 transfer-method

Indicates how the document will be transferred to or acquired by the server.

Objects	Document
M/S	Single value
Settable	Yes (only at job submission)
Valid values	<i>with-request, socket, file-transfer</i>

A.2.203 transfer-methods-supported

Indicates the transfer methods supported by the server.

Objects	Server (spooler and supervisor)
M/S	Multi-value
Settable	No
Valid values	<i>with-request, socket, file-reference</i>

A.2.204 translation-filter

Overrides the automatic invocation of a translation filter.

Objects	Document
M/S	Single value
Settable	Yes
Valid values	

A.2.205 user-name

Specifies the name of the user requesting access to print service operations.

As part of the authentication process, the spooler compares a user's name against entries in the spooler's *access-control-list* attribute. On a print operation, the spooler writes the user name that it retrieved during authentication into the job's *user-name* attribute.

Objects	Job
M/S	Single value
Settable	No
Valid values	Text string of up to 4095 characters

A.2.206 when

Specifies how much processing can occur before a server can shut down.

Objects	N/A
---------	-----

M/S	Single value
Settable	Yes
Valid values	<i>now</i> <i>after-current</i> <i>after-all</i>

A.2.207 width

Provides more control over the placement of text in a document with simple-text format. Specifically, the attribute specifies the width of the text area in characters. This is the maximum line width before wrapping.

(Some document formats, such as PostScript, specify the margin as part of the document content; simple-text does not.)

The value *width=80* specifies a text area width of eighty characters.

Because of its use with simple-text format, *width* is typically part of a simple-text translation filter as defined with the attribute *filter-definition*.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Any positive number

A.2.208 x-image-shift

Causes page images to be shifted in position with respect to the medium on which the page images are to be rendered. The direction of shift is parallel to the x-axis of the Reference Coordinate System (RCS).

The attribute enables requests for a different margin, possibly to correct a misalignment.

The print system supports this attribute only for certain printers. Ask your system administrator for details.

The physical and logical printer attribute *x-image-shift-range-supported* identifies the range supported by the printer.

The sign of the attribute value indicates the direction of shift. A positive value indicates that the shift is in the positive x- direction. A negative value indicates that the shift is in the negative x- direction. The shift direction is the same for all pages, regardless of the value of the *plex* attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Any negative or positive number

A.2.209 x-image-shift-range-supported

Identifies the *x-image-shift* range supported by the printer.

The print system supports this attribute only for certain printers. Ask your system administrator for details.

Objects	Printer (logical and physical)
M/S	Single value
Settable	Yes
Valid values	A range specified by any two negative or positive numbers

A.2.210 y-image-shift

Causes page images to be shifted in position with respect to the medium on which the page images are to be rendered. The direction of shift is parallel to the y-axis of the Reference Coordinate System (RCS).

The attribute enables requests for a different margin, possibly to correct a misalignment.

The print system supports this attribute only for certain printers. Ask your system administrator for details.

The physical and logical printer attribute *y-image-shift-range-supported* identifies the range supported by the printer.

The sign of the attribute value indicates the direction of shift. A positive value indicates that the shift is in the positive y- direction. A negative value indicates that the shift is in the negative y- direction. The shift direction is the same for all pages, regardless of the value of the *plex* attribute.

Objects	Document Initial-value-document
M/S	Single value
Settable	Yes
Valid values	Any negative or positive number

A.2.211 y-image-shift-range-supported

Identifies the *y-image-shift* range supported by the printer.

The print system supports this attribute only for certain printers. Ask your system administrator for details.

Objects	Printer (logical and physical)
M/S	Single value
Settable	Yes
Valid values	A range specified by any two negative or positive numbers

B

Attribute Query Filters

B.1 Filter Operations

The syntax for a filter can be defined as a filter item or as a recursive filter.
The syntax for a filter item is as follows:

attribute-type operator attribute-value

Table B–1: Allowable Filter Item Operators

Operator	Description
= =	Matches string for equality (string, integer, etc.).
= *	Matches string for first part of a value.
*=	Matches string for last part of a value.
_	Matches string for any part of a value (i.e., a substring)
> =	Matches for a value greater than that specified.
< =	Matches for a value less than that specified.

Example: -f job-owner==userName

There is one unary operator, with the following syntax:

attribute-type operator

Table B–2: Allowable Unary Filter Item Operator

Operator	Description
*	Matches for attribute being present (any value).

Example: -f 'message*'

B.1.1 Recursive Filter

The syntax for a filter item is as follows:

Table B–3: Allowable Filter Operators

Precedence	Operator
filter-item && filter	the "and" operator
filter-item filter	the "or" operator
!(filter)	The "not" operator
(filter)	Use parentheses to group items for precedence.

Table B-4 lists the order of precedence for the allowable operators. Each attribute-value in a filter text must be a single value. You can use && and || to include multiple values. Remember that you can use the parentheses to group items for precedence.

Table B–4: Operator Order of Precedence

Precedence	Operator
1	()
2	<=, >=, ==, =*, *=*, *=, *
3	!
4	&&
5	

Examples:

To list all of John's print jobs that use anything other than North American letter size paper, specify the following filter expression:

```
-f "(user-name==John) && !(media-used==a)"
```

To list all printers that have a message posted, use the following filter text (single quotes are required here):

```
-f 'message*'
```

To list all documents that have a copy-count greater than 1, specify the following filter text:

```
-f "copy-count>=1"
```

Event Notification

You can include the attribute *notification-profile=profile* in the -x or -X option of the command line to identify the specific job information or events for which you want notification. This attribute is multi-valued and each value can include the following optional elements:

- *event-identifiers*

The type of events you wish notification. You can include a specific event, such as "report-job-completed", in which case you will be notified only when your job has completed; or a class of events, such as "class-aborted", in which case you will be notified if your job is affected by any event within the class of events. To display a list of events available for notification, perform a *pdls* on the server and include the attribute *events-supported*. If this field is omitted, all events associated with this object are reported.

- *delivery-method*

The way you want to be notified. The following values are supported:

- *email*

All pertinent event information is delivered via electronic-mail to the address provided in the *delivery-address* field.

- *message*

Event information is delivered immediately as a message written to a console window on the workstation associated with the address provided in the *delivery-address* field. A console window must be open in order to view message.

- *event-comment*

You can include a comment that will become a part of the notification.

- *delivery-address*

The address where the notification is to be sent.

- For email, only mail addresses having an RFC-822 syntax, such as Internet mail addresses, are supported. The format for the address is:

<user-name>@<user-address>

- For message, the format for the address is,

"X <ip address? 0" or the host name

The local host is the default if you do not specify an address.

- *locale*

The server uses this information to build the message. If you omit this element the CLI provides the information as a default.

System problems or interesting events are reported to users through notifications services. Events are reported to the user by e-mail or an immediate message.

The attribute *notification-profile* specifies the events to be reported and the delivery method to be used. Users can request notification on specific events or on classes of events. Notification on a class of events will produce messages for each event in the class. Users can specify a *notification-profile* for the following objects:

- Printer
- Servers (spoolers and supervisors)
- Job
- Queue

Table C-1 lists the events, their classes, the print objects to which they apply, and the associated messages that are supported.

Table C-1: Events

Class/Event	Object	Message
<i>class-aborted</i>		
job-aborted-by-server	job	The server aborted the print job.
job-cancelled-by-operator	job	The operator cancelled the print job.
job-cancelled-by-user	job	The user cancelled the print job.
<i>class-error</i>		
error-document-content	job	The server detected an error in the document content during printing.
error-job-submission-not-complete	job	The server has not received the final print operation for a job.
error-no-document	server	A document is not accessible or available to the server.
error-no-resource	job	A required resource is not available or has become unavailable.
error-other	all	the server has encountered some unknown error condition.

Table C–1: Events (cont.)

Class/Event	Object	Message
error-page-select	job	A specified page could not be found in the document.
error-past-deadline	job	The deadline time for the print job has passed.
error-past-discard-time	job	The discard time for the print job has passed.
error-printer-shutdown	printer	The printer was shut down before the job completed.
error-unrecognized-resource	server	A required resource is not known to the server.
<i>class-report</i>		
report-file-transferred	document	A file transfer for the job has been completed.
report-job-completed	job	The print job has completed successfully.
report-job-discarded	job	The print job has been discarded.
report-job-promoted	job	The print job was promoted by the user or operator.
report-job-resumed	job	The print job was resumed by the user or operator.
report-processing-started	job	The server has begun processing the job.
report-resource-message	job	A message regarding a required resource should be read.
<i>class-state-changed</i>		
state-changed-job	job	The state of the job has changed.
state-changed-printer	printer	The state of the printer has changed.
state-changed-queue	queue	The state of the queue has changed.
state-changed-server	server	The state of the server has changed.
<i>class-warning</i>		
warning-close-to-deadline	job	The deadline time for printing the job is nearing.
warning-close-to-discard-time	job	The retention period is nearing.
warning-criterion-exceeded	job	A preciously specified criterion threshold value has been exceeded.

Table C–1: Events (cont.)

Class/Event	Object	Message
warning-duplicate-attribute-ignored	server	An attribute has been duplicated.
warning-job-interrupted	job	The print job has been interrupted by the user or operator.
warning-job-modified	job	The print job was modified by a user or operator.
warning-job-paused	job	The print job has been paused by the user or operator.
warning-other	all	The server has encountered some unknown warning condition.
warning-printer-shutdown	printer	The printer was shutdown before the job started.
warning-resource-needs-attention	printer	A required resource needs attention.
warning-resource-needs-operator	printer	A required resource needs attention by an operator.

D

-r Verbose and -r Brief Attributes

When used with the `pdls` command, the *brief* and *verbose* values for the `-r` option cause specific attributes to be printed to standard output. For each object, all attributes in the associated column appear in the verbose listing, while only the attributes shown in *italic* appear in the brief listing.

Table D–1: Verbose and brief listing for server, printer, queue, and job object

Server	Printer	Queue	Job
<i>server-name</i>	<i>printer-name</i>	<i>queue-name</i>	<i>job-identifier</i>
<i>server-state</i>	<i>printer-realization</i>	<i>logical-printers-ready</i>	<i>job-name</i>
<i>availability</i>	<i>printer-state</i>	<i>logical-printers-supported</i>	<i>current-job-state</i>
<i>logical-printers-supported</i>	<i>availability</i>	<i>physical-printers-ready</i>	<i>job-state-reasons</i>
<i>physical-printers-supported</i>	<i>associated-server</i>	<i>physical-printers-supported</i>	<i>intervening-jobs</i>
	<i>printer-locations</i>		<i>printer-name-requested</i>
	<i>printer-associated-printers</i>		<i>printers-assigned</i>
			<i>total-job-octets</i>
			<i>job-owner</i>

Table D–2: Verbose and brief listing for document, ivj, and ivd object

Document	Initial-value-job	Initial-value-document
<i>document-sequence-number</i>	<i>initial-value-job-identifier</i>	<i>initial-value-document-identifier</i>
<i>document-format</i>	<i>associated-server</i>	<i>associated-server</i>
<i>document-state</i>	<i>job-retention-period</i>	<i>copy-count</i>
<i>copy-count</i>		<i>sides</i>
<i>sides</i>		<i>document-format</i>