Rocky Enterprise Linux 9.2 Manual Pages on command 'filter.7'

$ man filter.7

filter(7) Apple Inc. filter(7)

NAME

filter - cups file conversion filter interface

SYNOPSIS

filter job user title num-copies options [filename]

#include <cups/cups.h>

ssize_t cupsBackChannelRead(char *buffer, size_t bytes,
double timeout);

cups_sc_status_t cupsSideChannelDoRequest(cups_sc_command_t command,
char *data, int *datalen,
double timeout);

#include <cups/ppd.h>

const char *cupsGetOption(const char *name, int num_options,
cups_option_t *options);

int cupsMarkOptions(ppd_file_t *ppd, int num_options,
cups_option_t *options);

int cupsParseOptions(const char *arg, int num_options,
cups_option_t **options);

```
ppd_choice_t *ppdFindMarkedChoice(ppd_file_t *ppd, const char *keyword);
void ppdMarkDefaults(ppd_file_t *ppd);
ppd_file_t *ppdOpenFile(const char *filename);
```

DESCRIPTION

The CUPS filter interface provides a standard method for adding support for new document types or printers to CUPS. Each filter is capable of converting from one or more input formats to another format that can either be printed directly or piped into another filter to get it to a printable format.

Filters MUST be capable of reading from a filename on the command-line or from the standard input, copying the standard input to a temporary file as required by the file format. All output MUST be sent to the standard output. Filters MUST NOT attempt to communicate directly with the printer, other processes, or other services.

The command name (argv[0]) is set to the name of the destination printer but is also available in the PRINTER environment variable.

OPTIONS

Options are passed in argv[5] and are encoded from the corresponding IPP attributes used when the job was submitted. Use the cupsParseOp?tions() function to load the options into a cups_option_t array and the cupsGetOption() function to get the value of a specific attribute. Be careful to look for common aliases of IPP attributes such as "land?scape" for the IPP "orientation-requested" attribute.

Options passed on the command-line typically do not include the default choices the printer's PPD file. Use the ppdMarkDefaults() and cups?MarkOptions() functions in the CUPS library to apply the options to the PPD defaults and map any IPP attributes to the corresponding PPD op?tions. Use ppdFindMarkedChoice() to get the user-selected choice for a PPD option. For example, a filter might use the following code to de?termine the current value of the Duplex PPD option:

```
ppd_file_t *ppd = ppdOpenFile(getenv("PPD"));
cups_option_t *options = NULL;
int num_options = cupsParseOptions(argv[5], 0, &options);
```

```
ppdMarkDefaults(ppd);
cupsMarkOptions(ppd, num_options, options);
ppd_choice_t *choice = ppdFindMarkedChoice(ppd, "Duplex");
```

Raster filters should use option choices set through the raster page header, as those reflect the options in effect for a given page. Options specified on the command-line determine the default values for the entire job, which can be overridden on a per-page basis.

LOG MESSAGES

Messages sent to the standard error are generally stored in the printer's "printer-state-message" attribute and the current ErrorLog file. Each line begins with a standard prefix:

ALERT: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "alert" log level.

ATTR: attribute=value [... attribute=value]

Sets the named job or printer attribute(s). The following job attributes can be set: "job-media-progress". The following printer attributes can be set: "auth-info-required", "marker-colors", "marker-high-levels", "marker-levels", "marker-low-levels", "marker-message", "marker-names", "marker-types", "printer-alert", and "printer-alert-description".

CRIT: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "critical" log level.

DEBUG: message

Adds the specified message to the current ErrorLog using the "debug" log level. DEBUG messages are never stored in the "printer-state-message" attribute.

DEBUG2: message

Adds the specified message to the current ErrorLog using the "debug2" log level. DEBUG2 messages are never stored in the "printer-state-message" attribute.

EMERG: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "emergency" log level.

ERROR: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "error" log level.

INFO: message

Sets the "printer-state-message" attribute. If the current LogLevel is set to "debug2", also adds the specified message to the current ErrorLog using the "info" log level.

NOTICE: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "notice" log level.

PAGE: page-number #-copies

PAGE: total #-pages

Adds an entry to the current PageLog. The first form adds #-copies to the "job-media-sheets-completed" attribute. The second form sets the "job-media-sheets-completed" attribute to #-pages.

PPD: Keyword=Value [... KeywordN=Value]

Sets the named keywords in the printer's PPD file. This is typically used to update default option keywords such as DefaultPageSize and the various installable options in the PPD file.

STATE: printer-state-reason [... printer-state-reason]

STATE: + printer-state-reason [... printer-state-reason]

STATE: - printer-state-reason [... printer-state-reason]

Sets, adds, or removes "printer-state-reason" keywords for the current queue. Typically this is used to indicate media, ink, and toner conditions on a printer.

WARNING: message

Sets the "printer-state-message" attribute and adds the specified message to the current ErrorLog using the "warning" log level.

ENVIRONMENT VARIABLES

The following environment variables are defined by the CUPS server when executing the filter:

CHARSET

The default text character set, typically "utf-8".

CLASS

When a job is submitted to a printer class, contains the name of the destination printer class. Otherwise this environment variable will not be set.

CONTENT_TYPE

The MIME media type associated with the submitted job file, for example "application/postscript".

CUPS_CACHEDIR

The directory where semi-persistent cache files can be found and stored.

CUPS_DATADIR

The directory where data files can be found.

CUPS_FILETYPE

The type of file being printed: "job-sheet" for a banner page and "document" for a regular print file.

CUPS_MAX_MESSAGE

The maximum size of a message sent to stderr, including any lead? ing prefix and the trailing newline.

CUPS_SERVERROOT

The root directory of the server.

FINAL_CONTENT_TYPE

The MIME media type associated with the output destined for the printer, for example "application/vnd.cups-postscript".

LANG The default language locale (typically C or en).

PATH The standard execution path for external programs that may be run by the filter.

PPD The full pathname of the PostScript Printer Description (PPD) file for this printer.

PRINTER

The name of the printer.

RIP_CACHE

The recommended amount of memory to use for Raster Image Proces?
sors (RIPs).

SOFTWARE

The name and version number of the server (typically CUPS/ma?
jor.minor).

TZ The timezone of the server.

USER The user executing the filter, typically "lp" or "root"; consult
the cups-files.conf file for the current setting.

CONFORMING TO

While the filter interface is compatible with System V interface
scripts, CUPS does not support System V interface scripts.

NOTES

CUPS printer drivers and backends are deprecated and will no longer be
supported in a future feature release of CUPS. Printers that do not
support IPP can be supported using applications such as
ippeveprinter(1).

CUPS filters are not meant to be run directly by the user. Aside from
the legacy System V interface issues (argv[0] is the printer name),
CUPS filters also expect specific environment variables and file de?
scriptors, and typically run in a user session that (on macOS) has ad?
ditional restrictions that affect how it runs. Unless you are a devel?
oper and know what you are doing, please do not run filters directly.
Instead, use the cupsfilter(8) program to use the appropriate filters
to do the conversions you need.

SEE ALSO

backend(7), cups(1), cups-files.conf(5), cupsd(8), cupsfilter(8),
CUPS Online Help (http://localhost:631/help)

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