

NAME

lpd - line printer spooler daemon

SYNOPSIS

lpd [-cdlpsFW46] [*port#*]

DESCRIPTION

The **lpd** utility is the line printer daemon (spool area handler) and is normally invoked at boot time from the rc(8) file. It makes a single pass through the printcap(5) file to find out about the existing printers and prints any files left after a crash. It then uses the system calls listen(2) and accept(2) to receive requests to print files in the queue, transfer files to the spooling area, display the queue, or remove jobs from the queue. In each case, it forks a child to handle the request so the parent can continue to listen for more requests.

Available options:

- c** By default, if some remote host has a connection error while trying to send a print request to **lpd** on a local host, **lpd** will only send error message to that remote host. The **-c** flag causes **lpd** to also log all of those connection errors via syslog(3).
- d** Turn on SO_DEBUG on the Internet listening socket (see setsockopt(2)).
- l** The **-l** flag causes **lpd** to log valid requests received from the network. This can be useful for debugging purposes.
- p** The **-p** flag is a synonym for the **-s** flag. It is being deprecated, and may be removed in a future version of **lpd**.
- s** The **-s** (secure) flag causes **lpd** not to open an Internet listening socket. This means that **lpd** will not accept any connections from any remote hosts, although it will still accept print requests from all local users.
- F** By default, **lpd** will daemonize into the background. The **-F** flag causes **lpd** to remain in the foreground. Logging is still performed with syslog(3).
- W** By default, the **lpd** daemon will only accept connections which originate from a reserved-port (<1024) on the remote host. The **-W** flag causes **lpd** to accept connections coming from any port. This is can be useful when you want to accept print jobs from certain implementations of lpr written for Windows.

- 4** Inet only.
- 6** Inet6 only.
- 46** Inet and inet6 (default).

port# The Internet port number used to rendezvous with other processes is normally obtained with `getservbyname(3)` but can be changed with the *port#* argument.

Access control is provided by two means. First, all requests must come from one of the machines listed in the file */etc/hosts.equiv* or */etc/hosts.lpd*. Second, if the *rs* capability is specified in the *printcap(5)* entry for the printer being accessed, *lpr* requests will only be honored for those users with accounts on the machine with the printer.

The file *minfree* in each spool directory contains the number of kilobytes to leave free so that the line printer queue will not completely fill the disk. The *minfree* file can be edited with your favorite text editor.

The daemon begins processing files after it has successfully set the lock for exclusive access (described a bit later), and scans the spool directory for files beginning with *cf*. Lines in each *cf* file specify files to be printed or non-printing actions to be performed. Each such line begins with a key character to specify what to do with the remainder of the line.

- J** Job Name. String to be used for the job name on the burst page.
- C** Classification. String to be used for the classification line on the burst page.
- L** Literal. The line contains identification info from the password file and causes the banner page to be printed.
- T** Title. String to be used as the title for *pr(1)*.
- H** Host Name. Name of the machine where *lpr(1)* was invoked.
- P** Person. Login name of the person who invoked *lpr(1)*. This is used to verify ownership by *lprm(1)*.
- M** Send mail to the specified user when the current print job completes.
- f** Formatted File. Name of a file to print which is already formatted.

- l** Like “f” but passes control characters and does not make page breaks.
- p** Name of a file to print using `pr(1)` as a filter.
- t** Troff File. The file contains `troff(1)` (*ports/textproc/groff*) output (cat phototypesetter commands).
- n** Dittroff File. The file contains device independent troff output.
- r** DVI File. The file contains Tex l output DVI format from Stanford.
- g** Graph File. The file contains data produced by `plot(3)`.
- c** Cifplot File. The file contains data produced by *cifplot*.
- v** The file contains a raster image.
- r** The file contains text data with FORTRAN carriage control characters.
- l** Troff Font R. Name of the font file to use instead of the default.
- 2** Troff Font I. Name of the font file to use instead of the default.
- 3** Troff Font B. Name of the font file to use instead of the default.
- 4** Troff Font S. Name of the font file to use instead of the default.
- W** Width. Changes the page width (in characters) used by `pr(1)` and the text filters.
- I** Indent. The number of characters to indent the output by (in ASCII).
- U** Unlink. Name of file to remove upon completion of printing.
- N** File name. The name of the file which is being printed, or a blank for the standard input (when `lpr(1)` is invoked in a pipeline).
- Z** Locale. String to be used as the locale for `pr(1)`.

If a file cannot be opened, a message will be logged via `syslog(3)` using the *LOG_LPR* facility. The **lpd** utility will try up to 20 times to reopen a file it expects to be there, after which it will skip the file to be

printed.

The **lpd** utility uses flock(2) to provide exclusive access to the lock file and to prevent multiple daemons from becoming active simultaneously. If the daemon should be killed or die unexpectedly, the lock file need not be removed. The lock file is kept in a readable ASCII form and contains two lines. The first is the process id of the daemon and the second is the control file name of the current job being printed. The second line is updated to reflect the current status of **lpd** for the programs lpq(1) and lprm(1).

FILES

<i>/etc/printcap</i>	printer description file
<i>/var/spool/*</i>	spool directories
<i>/var/spool/*/minfree</i>	minimum free space to leave
<i>/dev/lp*</i>	line printer devices
<i>/var/run/printer</i>	socket for local requests
<i>/etc/hosts.equiv</i>	lists machine names allowed printer access
<i>/etc/hosts.lpd</i>	lists machine names allowed printer access, but not under same administrative control.

SEE ALSO

lpq(1), lpr(1), lprm(1), setsockopt(2), syslog(3), hosts.lpd(5), printcap(5), chkprintcap(8), lpc(8), pac(8)

Ralph Campbell, *4.2 BSD Line Printer Spooler Manual*.

HISTORY

An **lpd** daemon appeared in Version 6 AT&T UNIX.