



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'logrotate.8' command

\$ man logrotate.8

LOGROTATE(8) System Administrator's Manual LOGROTATE(8)

NAME

logrotate ? rotates, compresses, and mails system logs

SYNOPSIS

```
logrotate [--force] [--debug] [--state file] [--skip-state-lock]
[--verbose] [--log file] [--mail command] config_file [config_file2
...]
```

DESCRIPTION

logrotate is designed to ease administration of systems that generate large numbers of log files. It allows automatic rotation, compression, removal, and mailing of log files. Each log file may be handled daily, weekly, monthly, or when it grows too large.

Normally, logrotate is run as a daily cron job. It will not modify a log more than once in one day unless the criterion for that log is based on the log's size and logrotate is being run more than once each day, or unless the -f or --force option is used.

Any number of config files may be given on the command line. Later config files may override the options given in earlier files, so the order in which the logrotate config files are listed is important.

Normally, a single config file which includes any other config files which are needed should be used. See below for more information on how to use the include directive to accomplish this. If a directory is given on the command line, every file in that directory is used as a

config file.

If no command line arguments are given, logrotate will print version and copyright information, along with a short usage summary. If any errors occur while rotating logs, logrotate will exit with non-zero status.

OPTIONS

-f, --force

Tells logrotate to force the rotation, even if it doesn't think this is necessary. Sometimes this is useful after adding new entries to a logrotate config file, or if old log files have been removed by hand, as the new files will be created, and logging will continue correctly.

-d, --debug

Turn on debug mode, which means that no changes are made to the logs and the logrotate state file is not updated. Only debug messages are printed.

-s, --state statefile

Tells logrotate to use an alternate state file. This is useful if logrotate is being run as a different user for various sets of log files. To prevent parallel execution logrotate by default acquires a lock on the state file, if it cannot be acquired logrotate will exit with value 3. The default state file is /var/lib/logrotate/logrotate.status.

--skip-state-lock

Do not lock the state file, for example if locking is unsupported or prohibited.

-v, --verbose

Turns on verbose mode, for example to display messages during rotation.

-l, --log file

Tells logrotate to log verbose output into the log_file. The verbose output logged to that file is the same as when running logrotate with -v switch. The log file is overwritten on every

logrotate execution.

-m, --mail command

Tells logrotate which command to use when mailing logs. This command should accept the following arguments:

1) the subject of the message given with '-s subject'

2) the recipient.

The command must then read a message on standard input and mail it to the recipient. The default mail command is /bin/mail.

--usage

Prints a short usage message.

-, --help

Prints help message.

--version

Display version information.

CONFIGURATION FILE

logrotate reads everything about the log files it should be handling from the series of configuration files specified on the command line. Each configuration file can set global options (local definitions override global ones, and later definitions override earlier ones) and specify logfiles to rotate. Global options do not affect preceding include directives. A simple configuration file looks like this:

```
# sample logrotate configuration file
```

```
compress
```

```
/var/log/messages {
```

```
    rotate 5
```

```
    weekly
```

```
    postrotate
```

```
        /usr/bin/killall -HUP syslogd
```

```
endscript
```

```
}
```

```
"/var/log/httpd/access.log" /var/log/httpd/error.log {
```

```
    rotate 5
```

```
    mail recipient@example.org
```

```

size 100k

shardscripts

postrotate
    /usr/bin/killall -HUP httpd
endscript
}

/var/log/news/* {
    monthly

    rotate 2

    olddir /var/log/news/old

    missingok

    postrotate
        kill -HUP $(cat /var/run/inn.pid)
    endscript

    nocompress
}

~/log/*.log {}

```

The first few lines set global options; in the example, logs are compressed after they are rotated. Note that comments may appear anywhere in the config file as long as the first non-whitespace character on the line is a #.

Values are separated from directives by whitespace and/or an optional =. Numbers must be specified in a format understood by strtoul(3).

The next section of the config file defines how to handle the log file /var/log/messages. The log will go through five weekly rotations before being removed. After the log file has been rotated (but before the old version of the log has been compressed), the command /usr/bin/killall -HUP syslogd will be executed.

The next section defines the parameters for both /var/log/httpd/access.log and /var/log/httpd/error.log. Each is rotated whenever it grows over 100 kilobytes in size, and the old logs files are mailed (uncompressed) to recipient@example.org after going through 5 rotations, rather than being removed. The shardscripts means that the

postrotate script will only be run once (after the old logs have been compressed), not once for each log which is rotated. Note that log file names may be enclosed in quotes (and that quotes are required if the name contains spaces). Normal shell quoting rules apply, with ', ", and \ characters supported.

The next section defines the parameters for all of the files in /var/log/news. Each file is rotated on a monthly basis. This is considered a single rotation directive and if errors occur for more than one file, the log files are not compressed.

The last section uses tilde expansion to rotate log files in the home directory of the current user. This is only available, if your glob library supports tilde expansion. GNU glob does support this.

Please use wildcards with caution. If you specify *, logrotate will rotate all files, including previously rotated ones. A way around this is to use the olddir directive or a more exact wildcard (such as *.log).

Here is more information on the directives which may be included in a logrotate configuration file:

CONFIGURATION FILE DIRECTIVES

These directives may be included in a logrotate configuration file:

Rotation

rotate count

Log files are rotated count times before being removed or mailed to the address specified in a mail directive. If count is 0, old versions are removed rather than rotated. If count is -1, old logs are not removed at all, except they are affected by maxage (use with caution, may waste performance and disk space).

Default is 0.

olddir directory

Logs are moved into directory for rotation. The directory must be on the same physical device as the log file being rotated, unless copy, copytruncate or renamecopy option is used. The directory is assumed to be relative to the directory holding the

log file unless an absolute path name is specified. When this option is used all old versions of the log end up in directory.

This option may be overridden by the noolddir option.

noolddir

Logs are rotated in the directory they normally reside in (this overrides the olddir option).

su user group

Rotate log files set under this user and group instead of using default user/group (usually root). user specifies the user used for rotation and group specifies the group used for rotation (see the section USER AND GROUP for details). If the user/group you specify here does not have sufficient privilege to make files with the ownership you've specified in a create directive, it will cause an error. If logrotate runs with root privileges, it is recommended to use the su directive to rotate files in directories that are directly or indirectly in control of non-privileged users.

Frequency

hourly Log files are rotated every hour. Note that usually logrotate is configured to be run by cron daily. You have to change this configuration and run logrotate hourly to be able to really rotate logs hourly.

daily Log files are rotated every day.

weekly [weekday]

Log files are rotated once each weekday, or if the date is advanced by at least 7 days since the last rotation (while ignoring the exact time). The weekday interpretation is following: 0 means Sunday, 1 means Monday, ..., 6 means Saturday; the special value 7 means each 7 days, irrespectively of weekday. Defaults to 0 if the weekday argument is omitted.

monthly

Log files are rotated the first time logrotate is run in a month (this is normally on the first day of the month).

yearly Log files are rotated if the current year is not the same as the last rotation.

size size

Log files are rotated only if they grow bigger than size bytes.

If size is followed by k, the size is assumed to be in kilo?

bytes. If the M is used, the size is in megabytes, and if G is

used, the size is in gigabytes. So size 100, size 100k, size

100M and size 100G are all valid. This option is mutually ex?

clusive with the time interval options, and it causes log files

to be rotated without regard for the last rotation time, if

specified after the time criteria (the last specified option

takes the precedence).

File selection

missingok

If the log file is missing, go on to the next one without issu?

ing an error message. See also nomissingok.

nomissingok

If a log file does not exist, issue an error. This is the de?

fault.

ifempty

Rotate the log file even if it is empty, overriding the no?

tifempty option (ifempty is the default).

notifempty

Do not rotate the log if it is empty (this overrides the ifempty

option).

minage count

Do not rotate logs which are less than <count> days old.

maxage count

Remove rotated logs older than <count> days. The age is only

checked if the logfile is to be rotated. rotate -1 does not

hinder removal. The files are mailed to the configured address

if maillast and mail are configured.

minsize size

Log files are rotated when they grow bigger than size bytes, but not before the additionally specified time interval (daily, weekly, monthly, or yearly). The related size option is similar except that it is mutually exclusive with the time interval options, and it causes log files to be rotated without regard for the last rotation time, if specified after the time criteria (the last specified option takes the precedence). When minsize is used, both the size and timestamp of a log file are considered.

maxsize size

Log files are rotated when they grow bigger than size bytes even before the additionally specified time interval (daily, weekly, monthly, or yearly). The related size option is similar except that it is mutually exclusive with the time interval options, and it causes log files to be rotated without regard for the last rotation time, if specified after the time criteria (the last specified option takes the precedence). When maxsize is used, both the size and timestamp of a log file are considered.

tabooext [+] list

The current taboo extension list is changed (see the include directive for information on the taboo extensions). If a + precedes the list of extensions, the current taboo extension list is augmented, otherwise it is replaced. At startup, the taboo extension list is .v, .cfsaved, .disabled, .dpkg-bak, .dpkg-del, .dpkg-dist, .dpkg-new, .dpkg-old, .rhn-cfg-tmp-*, .rpmnew, .rpmorig, .rpmsave, .swp, .ucf-dist, .ucf-new, .ucf-old, ~

taboopat [+] list

The current taboo glob pattern list is changed (see the include directive for information on the taboo extensions and patterns). If a + precedes the list of patterns, the current taboo pattern list is augmented, otherwise it is replaced. At startup, the taboo pattern list is empty.

create mode owner group, create owner group

Immediately after rotation (before the postrotate script is run) the log file is created (with the same name as the log file just rotated). mode specifies the mode for the log file in octal (the same as chmod(2)), owner specifies the user who will own the log file, and group specifies the group the log file will belong to (see the section USER AND GROUP for details). Any of the log file attributes may be omitted, in which case those attributes for the new file will use the same values as the original log file for the omitted attributes. This option can be disabled using the nocreate option.

nocreate

New log files are not created (this overrides the create option).

createolddir mode owner group

If the directory specified by olddir directive does not exist, it is created. mode specifies the mode for the olddir directory in octal (the same as chmod(2)), owner specifies the user who will own the olddir directory, and group specifies the group the olddir directory will belong to (see the section USER AND GROUP for details). This option can be disabled using the nocreateolddir option.

nocreateolddir

olddir directory is not created by logrotate when it does not exist.

copy Make a copy of the log file, but don't change the original at all. This option can be used, for instance, to make a snapshot of the current log file, or when some other utility needs to truncate or parse the file. When this option is used, the create option will have no effect, as the old log file stays in place. The copy option allows storing rotated log files on the different devices using olddir directive.

nocopy Do not copy the original log file and leave it in place. (this

overrides the copy option).

copytruncate

Truncate the original log file to zero size in place after creating a copy, instead of moving the old log file and optionally creating a new one. It can be used when some program cannot be told to close its logfile and thus might continue writing (appending) to the previous log file forever. Note that there is a very small time slice between copying the file and truncating it, so some logging data might be lost. When this option is used, the create option will have no effect, as the old log file stays in place. The copytruncate option allows storing rotated log files on the different devices using olddir directive. The copytruncate option implies norenamecopy.

nocopytruncate

Do not truncate the original log file in place after creating a copy (this overrides the copytruncate option).

renamecopy

Log file is renamed to temporary filename in the same directory by adding ".tmp" extension to it. After that, postrotate script is run and log file is copied from temporary filename to final filename. In the end, temporary filename is removed. The renamecopy option allows storing rotated log files on the different devices using olddir directive. The renamecopy option implies nocopytruncate.

norenamecopy

Do not rename and copy the original log file (this overrides the renamecopy option).

shred Delete log files using `shred -u` instead of `unlink()`. This should ensure that logs are not readable after their scheduled deletion; this is off by default. See also `noshred`.

noshred

Do not use `shred` when deleting old log files. See also `shred`.

shredcycles count

Asks GNU shred(1) to overwrite log files count times before deletion. Without this option, shred's default will be used.

Compression

compress

Old versions of log files are compressed with gzip(1) by default. See also nocompress.

nocompress

Old versions of log files are not compressed. See also compress.

compresscmd

Specifies which command to use to compress log files. The default is gzip(1). See also compress.

uncompresscmd

Specifies which command to use to uncompress log files. The default is gunzip(1).

compressext

Specifies which extension to use on compressed logfiles, if compression is enabled. The default follows that of the configured compression command.

compressoptions

Command line options may be passed to the compression program, if one is in use. The default, for gzip(1), is "-6" (biased towards high compression at the expense of speed). If you use a different compression command, you may need to change the compressoptions to match.

delaycompress

Postpone compression of the previous log file to the next rotation cycle. This only has effect when used in combination with compress. It can be used when some program cannot be told to close its logfile and thus might continue writing to the previous log file for some time.

nodelaycompress

Do not postpone compression of the previous log file to the next

rotation cycle (this overrides the delaycompress option).

Filenames

extension ext

Log files with ext extension can keep it after the rotation. If compression is used, the compression extension (normally .gz) appears after ext. For example you have a logfile named mylog.foo and want to rotate it to mylog.1.foo.gz instead of mylog.foo.1.gz.

addextension ext

Log files are given the final extension ext after rotation. If the original file already ends with ext, the extension is not duplicated, but merely moved to the end, that is both filename and filenameext would get rotated to filename.1ext. If compression is used, the compression extension (normally .gz) appears after ext.

start count

This is the number to use as the base for rotation. For example, if you specify 0, the logs will be created with a .0 extension as they are rotated from the original log files. If you specify 9, log files will be created with a .9, skipping 0?8. Files will still be rotated the number of times specified with the rotate directive.

dateext

Archive old versions of log files adding a date extension like YYYYMMDD instead of simply adding a number. The extension may be configured using the dateformat and dateyesterday options.

nodateext

Do not archive old versions of log files with date extension (this overrides the dateext option).

dateformat format_string

Specify the extension for dateext using the notation similar to strftime(3) function. Only %Y %m %d %H %M %S %V and %s specifiers are allowed. The default value is %Y%m%d except hourly,

which uses `-%Y%m%d%H` as default value. Note that also the character separating log name from the extension is part of the dateformat string. The system clock must be set past Sep 9th 2001 for %s to work correctly. Note that the datestamps generated by this format must be lexically sortable (that is first the year, then the month then the day. For example 2001/12/01 is ok, but 01/12/2001 is not, since 01/11/2002 would sort lower while it is later). This is because when using the rotate operation, logrotate sorts all rotated filenames to find out which logfiles are older and should be removed.

dateyesterday

Use yesterday's instead of today's date to create the dateextension, so that the rotated log file has a date in its name that is the same as the timestamps within it.

datehourago

Use hour ago instead of current date to create the dateextension, so that the rotated log file has a hour in its name that is the same as the timestamps within it. Useful with rotate hourly.

Mail

mail address

When a log is rotated out of existence, it is mailed to address.

If no mail should be generated by a particular log, the nomail directive may be used.

nomail Do not mail old log files to any address.

mailfirst

When using the mail command, mail the just-rotated file, instead of the about-to-expire file.

maillast

When using the mail command, mail the about-to-expire file, instead of the just-rotated file (this is the default).

Additional config files

include file_or_directory

Reads the file given as an argument as if it was included inline where the include directive appears. If a directory is given, most of the files in that directory are read in alphabetic order before processing of the including file continues. The only files which are ignored are files which are not regular files (such as directories and named pipes) and files whose names end with one of the taboo extensions or patterns, as specified by the tabooext or tabooat directives, respectively. The given path may start with ~/ to make it relative to the home directory of the executing user. For security reasons configuration files must not be group-writable nor world-writable.

Scripts

sharedscripts

Normally, prerotate and postrotate scripts are run for each log which is rotated and the absolute path to the log file is passed as first argument to the script. That means a single script may be run multiple times for log file entries which match multiple files (such as the /var/log/news/* example). If sharedscripts is specified, the scripts are only run once, no matter how many logs match the wildcarded pattern, and whole pattern is passed to them. However, if none of the logs in the pattern require rotating, the scripts will not be run at all. If the scripts exit with error (or any log fails to rotate), the remaining actions will not be executed for any logs. This option overrides the nosharedscripts option.

nosharedscripts

Run prerotate and postrotate scripts for every log file which is rotated (this is the default, and overrides the sharedscripts option). The absolute path to the log file is passed as first argument to the script. The absolute path to the final rotated log file is passed as the second argument to the postrotate script. If the scripts exit with error, the remaining actions will not be executed for the affected log only.

firstaction

script

endscript

The script is executed once before all log files that match the wildcarded pattern are rotated, before the prerotate script is run and only if at least one log will actually be rotated.

These directives may only appear inside a log file definition.

The whole pattern is passed to the script as its first argument.

If the script exits with an error, no further processing is done. See also lastaction and the SCRIPTS section.

lastaction

script

endscript

The script is executed once after all log files that match the wildcarded pattern are rotated, after the postrotate script is run and only if at least one log is rotated. These directives may only appear inside a log file definition. The whole pattern is passed to the script as its first argument. If the script exits with an error, just an error message is shown (as this is the last action). See also firstaction and the SCRIPTS section.

prerotate

script

endscript

The script is executed before the log file is rotated and only if the log will actually be rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as the first argument to the script. If sharedscripts is specified, the whole pattern is passed to the script. See also postrotate and the SCRIPTS section. See sharedscripts and nosharedscripts for error handling.

postrotate

script

endscript

The script is executed after the log file is rotated. These directives may only appear inside a log file definition. Normally, the absolute path to the log file is passed as the first argument to the script and the absolute path to the final rotated log file is passed as the second argument to the script. If sharedscripts is specified, the whole pattern is passed as the first argument to the script, and the second argument is omitted. See also prerotate and the SCRIPTS section. See sharedscripts and nosharedscripts for error handling.

preremove

script

endscript

The script is executed once just before removal of a log file. logrotate will pass the name of file which is soon to be removed as the first argument to the script. See also firstaction and the SCRIPTS section.

SCRIPTS

The lines between the starting keyword (e.g. prerotate) and endscript (both of which must appear on lines by themselves) are executed (using /bin/sh). The script inherits some traits from the logrotate process, including stderr, stdout, the current directory, the environment, and the umask. Scripts are run as the invoking user and group, irrespective of any su directive. If the --log flag was specified, file descriptor 3 is the log file.

USER AND GROUP

User and group identifiers are resolved first by trying the textual representation and, in case it fails, afterwards by the numeric value.

FILES

/var/lib/logrotate/logrotate.status Default state file.

/etc/logrotate.conf Configuration options.

SEE ALSO

chmod(2), gunzip(1), gzip(1), mail(1), shred(1), strftime(3), strtooul(3), <<https://github.com/logrotate/logrotate>>

AUTHORS

Erik Troan, Preston Brown, Jan Kaluza.

<<https://github.com/logrotate/logrotate>>

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