logrotate Log rotation

CONCEPTS

logrotate is not a daemon: cron or a systemd timer runs it (daily by default). It decides per log whether a rotation is due and records the last rotation date in a state file.

prerotate optional script
↓ rename
Rotate app.log to app.log.1
↓ create
New log empty file
↓ postrotate
Reload app reopen log files
↓ compress
Compress app.log.2.gz

What happens to one log when it is due

The main file /etc/logrotate.conf sets global defaults and ends with include /etc/logrotate.d; packages drop one small file each into that directory.

Options set before any log path act as defaults for the rest of the file; options inside a block { } apply to that block only.

RUNNING

logrotate *<conf>*
Run with a config file (or directory)

RUNNING (cont.)

logrotate -d *<conf>*
Debug: show what would happen, change nothing

logrotate -f *<conf>*
Force rotation even if not due

logrotate -v *<conf>*
Print what is being done

logrotate -s *<file>* *<conf>*
Use another state file

logrotate -l *<file>* *<conf>*
Write verbose output to a log file

logrotate --version
Show the installed version

/var/lib/logrotate.status
State file: last rotation per log

systemctl list-timers logrotate.timer
See when the systemd timer runs it

CONFIG STRUCTURE

/path/to/app.log { ... }
Block: log path(s) and their directives

/var/log/a.log /var/log/b.log { ... }
One block for several logs

CONFIG STRUCTURE (cont.)

/var/log/app/*.log { ... }
Glob for the log files

include /etc/logrotate.d
Read all files of a directory

 # comment
Comment line

su *<user>* *<group>*
Rotate as this user and group

SCHEDULE AND SIZE

hourly
Rotate every hour

daily
Rotate once a day

weekly
Rotate once a week

monthly
Rotate once a month

yearly
Rotate when the year changes

rotate *<count>*
Keep this many old logs

size *<size>*
Rotate only when larger (k, M, G)

minsize *<size>*
Rotate when due and at least this big

SCHEDULE AND SIZE (cont.)

maxsize *<size>*
Rotate when too big, even before due

maxage *<days>*
Delete rotated logs older than this

COMPRESSION

compress
Compress rotated logs (gzip)

nocompress
Do not compress

delaycompress
Compress one cycle later

FILES AND NAMING

missingok
No error if the log does not exist

notifempty
Skip rotation if the log is empty

create *<mode>* *<user>* *<group>*
Make a new log after rotation

nocreate
Do not create a new log

copytruncate
Copy, then truncate in place

FILES AND NAMING (cont.)

dateext
Use a date instead of a number

olddir *<dir>*
Move rotated logs to a directory

SCRIPTS

postrotate ... endscript
Run commands after rotation

prerotate ... endscript
Run commands before rotation

sharedscripts
Run scripts once per block, not per log

RECIPES

Typical application config

```
/var/log/myapp/*.log {
    weekly
    rotate 8
    compress
    delaycompress
    missingok
    notifempty
    create 0640 myapp adm
}
```

Test a new config safely

```
sudo logrotate -d /etc/
logrotate.d/myapp
sudo logrotate -f -v /etc/
logrotate.d/myapp
cat /var/lib/
logrotate.status
```