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)

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 -m *<cmd>* *<conf>*
Mail command used by the mail directive

logrotate --version
Show the installed version

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

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

/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

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

COMPRESSION (cont.)

compresscmd *<cmd>*
Use another compressor (xz, zstd...)

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

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
}
```

Reload a service after rotation

```
/var/log/nginx/*.log {
    daily
    rotate 14
    compress
    delaycompress
    sharedscripts
    postrotate
        systemctl reload nginx ||
true
    endscript
}
```