tail, head and watch Peek, follow, repeat

CONCEPTS

head and tail show the start and end of a file; watch reruns any command and redraws the screen.

head start of file
↓ -n N
file or stdin
tail end of file
↓ -f
live stream new lines

tail -f follows the open file; after log rotation it keeps reading the old, renamed file. Use -F to follow the name.

These are GNU coreutils and procps behaviours; BSD and macOS tail/head lack some options and have no watch by default.

TAIL

tail *<file>*
Last 10 lines

tail -n *<N>* *<file>*
Last N lines

tail -n +<N> *<file>*
From line N to the end

tail -c *<N>* *<file>*
Last N bytes

tail -c +<N> *<file>*
From byte N to the end

tail *<file1>* *<file2>*
Last lines of several files, with headers

tail -q *<file1>* *<file2>*
Several files, no headers

tail -v *<file>*
Always print the file name header

tail -z *<file>*
Split on NUL instead of newline

FOLLOWING

tail -f *<file>*
Follow appended lines

tail -F *<file>*
Follow by name, retry if missing

FOLLOWING (cont.)

tail -f *<file1>* *<file2>*
Follow several files at once

tail -n 0 -f *<file>*
Follow only new lines

tail -f --pid=<pid> *<file>*
Stop when a process exits

tail --retry -f *<file>*
Keep trying until the file exists

tail -f -s *<secs>* *<file>*
Poll interval when not using inotify

Ctrl+C
Stop following

HEAD

head *<file>*
First 10 lines

head -n *<N>* *<file>*
First N lines

head -n -<N> *<file>*
All but the last N lines

head -c *<N>* *<file>*
First N bytes

head -c -<N> *<file>*
All but the last N bytes

head *<file1>* *<file2>*
First lines of several files, with headers

head -q *<file1>* *<file2>*
Several files, no headers

head -z *<file>*
Split on NUL instead of newline

head -n 1
First line of piped input

WATCH

watch *<cmd>*
Run every 2 seconds

watch -n *<secs>* *<cmd>*
Set the interval

watch -d *<cmd>*
Highlight changes between runs

watch -d=permanent *<cmd>*
Keep every change highlighted

watch -t *<cmd>*
Hide the header

WATCH (cont.)

watch -e *<cmd>*
Stop when the command fails

watch -g *<cmd>*
Exit when the output changes

watch -q *<cycles>* *<cmd>*
Exit after N unchanged runs

watch -c *<cmd>*
Keep ANSI colours

watch -b *<cmd>*
Beep when the command fails

watch -p *<cmd>*
Run at precise intervals

watch -w *<cmd>*
Do not wrap long lines

watch -x *<cmd>* *<args>*
Run without a shell

PIPES AND TEE

<cmd> **| tail -n** *<N>*
Keep the last N output lines

<cmd> **| head -n** *<N>*
Keep the first N output lines

tail -f *<file>* **| grep --line-buffered** *<pat>*
Filter a live log

<cmd> **| tee** *<file>*
Show output and save it

<cmd> **| tee -a** *<file>*
Append instead of overwrite

<cmd> **| sudo tee** *<file>*
Write to a root-owned file

<cmd> **| tee** *<file1>* *<file2>*
Write to several files

RECIPES

Follow a rotating log and filter

```
tail -F /var/log/nginx/error.log
\
  | grep --line-buffered -i error
```

Skip a CSV header and peek

```
tail -n +2 data.csv | head -n 5
```

Watch a directory grow

```
watch -n 1 -d 'ls -l /tmp | tail
-n 10'
```

Wait until a service is up

```
watch -g -n 2 'systemctl is-
active nginx'
# exits as soon as the output
changes
```