# less Terminal pager

**Input** file or pipe → read → **Buffer** lazy, scrollable → show → **Screen** keys, search, options

## CONCEPTS

less is a pager: it reads lazily, so huge files open at once and you can scroll back, which a plain cat cannot do.

Keys are case sensitive. Many accept a count first: 10j moves 10 lines, 50% jumps halfway.

Press h inside less for the full key summary; the same keys work in man, git log and systemctl.

## MOVING

**Space** / **f**
Forward one screen

**b** Back one screen

**j** / **Enter**
Forward one line

**k** / **y** Back one line

**d** Forward half a screen

**u** Back half a screen

**g** / **<** Go to the first line

**G** / **>** Go to the last line

**<n>g** Go to line <n>

## MOVING (cont.)

**<n>%**
Go to <n> percent into the file

**Right** / **Left**
Scroll sideways half a screen

**ESC-Space**
Forward one screen, past end of file

**r** Repaint the screen

## SEARCHING

**/<pattern>**
Search forward

**?<pattern>**
Search backward

**n** Next match

**N** Previous match

**&<pattern>**
Show only matching lines

**&!<pattern>**
Show only non-matching lines

**ESC-u**
Toggle match highlighting

**/!<pattern>**
Search for lines not matching

## SEARCHING (cont.)

**/^R<pattern>**
Search literally, no regex

Searches are regular expressions. With -i they ignore case unless the pattern has capitals.

## MARKS AND JUMPING

**m<letter>**
Mark the top line

**'<letter>** Jump to a mark

**''**
Jump back to previous position

**{** / **}**
Jump to matching bracket

## FILES AND COMMANDS

**F**
Follow the end, like tail -f

**:n** Next file

**:p** Previous file

**:e** › *<file>*
Open another file

**=** / **Ctrl** + **G**
Show file name and position

## FILES AND COMMANDS (cont.)

**-<flag>**
Toggle an option live

**v** Edit the file in $EDITOR

**!<cmd>**
Run a shell command

**s** › *<file>*
Save piped input to a file

**h** Show help

**q** Quit

## OPTIONS

**less -S** *<file>*
Chop long lines instead of wrapping

**less -N** *<file>*
Show line numbers

**less -R**
Pass ANSI colours through

**less -F**
Quit if it fits on one screen

**less -X**
Do not clear screen on exit

**less -i**
Ignore case when searching

**less -I**
Ignore case always

## OPTIONS (cont.)

**less +F** *<file>*
Start in follow mode

**less +***<n>* *<file>*
Start at line <n>

**less +/***<pattern>* *<file>*
Start at first match

**less -s**
Squeeze blank lines

**less** *<a>* *<b>*
View several files, :n / :p to switch

## RECIPES

**Colour output, then page it**

```
git diff --color=always |
less -R
grep -rn --color=always
TODO . | less -R
```

**Watch a log, search, resume**

```
less +F /var/log/syslog
# Ctrl+C to stop following
# /error then n to step
through hits
# F to follow again
```

**Wide table without wrapping**

```
ps aux | less -S
# Left / Right to scroll
sideways
```

**Make options permanent**

```
export LESS='-iRFX'
export PAGER=less
```