less Terminal pager

START HERE

`less <file>`
Open a file

F
Follow growth like tail -f

Space / **b**
Page down / up

q
Quit

j / **k**
Line down / up

g / **G**
Top / bottom

/<pattern>
Search forward

n / **N**
Next / previous match

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>

Counts prefix most commands, e.g. 120g.

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

z / **w**
Forward / back one screen, set its size

r Repaint the screen

SEARCHING

/<pattern> Search forward

?<pattern> Search backward

n Next match

N Previous match

&<pattern>
Show only matching lines

An empty &<Enter> shows everything again.

&!<pattern>
Show only non-matching lines

ESC-u
Toggle match highlighting

SEARCHING (cont.)

ESC-n
Next match, continuing into the next file

/!<pattern>
Search for lines not matching

/^K<pattern>
Highlight matches without moving

/^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

M<letter>
Mark the bottom line

'<letter> Jump to a mark

''
Jump back to previous position

'^ / **'$**
Jump to start / end by mark

{ / **}**
Jump to matching bracket

t / **T** Next / previous tag

FILES AND COMMANDS

F Follow the end, like tail -f

Press Ctrl+C to stop following and scroll again.

:n Next file

:p Previous file

:e › *<file>* Open another file

:d
Remove current file from the list

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

-<flag> Toggle an option live

For example -S or -N; --<name> works too.

v Edit the file in $EDITOR

!<cmd>
Run a shell command

|<mark> › *<cmd>*
Pipe a range to 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

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

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

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

`less -p <pattern>`
Start at first match

`less -s`
Squeeze blank lines

`less -J`
Show a status column for matches

`less -M`
Verbose prompt with percent

OPTIONS (cont.)

`less -K`
Quit on Ctrl+C

`less -o <log>`
Log piped input to a file

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

`less -x4`
Set tab stops to 4

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
```