htop Interactive process viewer

START HERE

F5 / **t**
Toggle tree view

Space
Tag a process

F6 / **<** › **>**
Pick sort column

F9 / **k**
Send a signal

F4 / ****
Filter by command

F2 / **S**
Open setup

F3 / **/**
Search, F3 for next

F10 / **q**
Quit

Header CPU, memory, load meters → watch → **Process list** sort, filter, tag → act → **Action** kill, renice, strace →

CONCEPTS

Every F-key has a letter twin shown here as F5 / t. Use the letter when the terminal or multiplexer eats F-keys.

Search (F3) only moves the highlight; filter (F4) hides everything that does not match. To clear a filter, press F4 again, then Esc.

Changes made in the setup screen are saved to ~/.config/htop/htoprc when htop exits cleanly (override the path with $HTOPRC).

On macOS the F-keys usually need Fn; the letter keys avoid that.

NAVIGATE

Up / **Down**
Move the selection

PgUp / **PgDn** Scroll one page

Home / **End**
Jump to first / last process

Left / **Right**
Scroll the list sideways
Reveals long command lines cut off at the screen edge.

Alt + **k** / **Alt** + **j**
Up / down, vim style

Alt + **h** / **Alt** + **l**
Scroll left / right, vim style

Ctrl + **A** / **Ctrl** + **E**
Scroll to line start / end

Tab / **Shift** + **Tab**
Next / previous screen tab
Screen tab names can be shown in setup.

0-9 Jump to a PID by typing it

F1 / **h** / **?** Help screen

SEARCH AND FILTER

F3 / **/**
Incremental search in commands

SEARCH AND FILTER (cont.)

F3
Next match while searching

Shift + **F3** Previous match

F4 / ****
Filter processes by command
Case-insensitive fixed strings; separate several terms with |.

F4, › **Esc**
Clear the filter (after F4)

u
Show only one user's processes

K Hide kernel threads

H Hide user threads

O
Hide containerized processes

SORT AND VIEW

F6 / **<** › **>**
Choose the sort column

I Invert the sort order

P Sort by CPU%

M Sort by memory

T Sort by time

N Sort by PID

F5 / **t** Toggle tree view
Choosing a sort column leaves tree view.

Plus / **Minus**
Expand / collapse a subtree
Tree view only.

*****
Expand or collapse all children of root PIDs

F Follow the selected process
Keeps the selection on it when the sort order moves it.

p Toggle full program paths

m
Merge exe, comm and cmdline

Z Pause / resume updates

SORT AND VIEW (cont.)

Ctrl + **L**
Redraw and recalculate

ACT ON PROCESSES

Space Tag / untag a process
Kill and similar actions then apply to all tagged processes.

c
Tag a process and its children

U Untag everything

F9 / **k** Send a signal (menu)

F8 / **[**
Raise nice value (lower priority)

F7 / **]**
Lower nice value (higher priority)
Needs root.

Shift + **F7** / **}**
Lower autogroup nice value
Needs root; Linux with autogroups.

Shift + **F8** / **{**
Raise autogroup nice value

a Set CPU affinity
Multi-CPU machines only.

s Trace syscalls with strace
Requires strace installed.

l List open files with lsof
Requires lsof installed.

w
Show wrapped command line

x Show file locks

F10 / **q** Quit

SETUP

F2 / **S**
Open the setup screen
Meters, display options, colors and columns live here.

Keep the Command column last in the column list; it grows to fill the width.

SETUP (cont.)

Set the update interval and defaults with flags instead of setup when scripting.

COMMAND LINE

`htop -u <user>`
Only that user's processes

`htop -p <pid>,<pid>`
Only the given PIDs

`htop -t`
Start in tree view

`htop -s <column>`
Start sorted by a column
Run htop --sort-key=help for the column names.

`htop -d <tenths>`
Update delay in tenths of a second

`htop -F <text>`
Start with a command filter

`htop -C`
Monochrome colors

`htop -M`
Disable the mouse

`htop --readonly`
Disable kill and renice

`htop -H`
Highlight new and old processes

RECIPES

Find and kill a runaway process

```
htop
# P to sort by CPU, / to search the command
# F9 (or k), pick SIGTERM; use SIGKILL only if it ignores that
```

Watch one service's process tree

```
htop -t -F nginx
# + / - fold subtrees, F follows the selection
```

Inspect a hung process

```
htop -p <pid>
# s: live strace, l: open files, x: file locks
```

Safe look-only session on a server

```
htop --readonly -u <user>
```