

# GNU Screen Quick Reference

Sessions, windows, splits, copy mode, and sharing

## Session Management

### Create & List Sessions

```
screen # new unnamed session
screen -S work # new session named "work"
screen -ls # list all sessions
screen -list # same as -ls
```

### Session Commands

```
screen -S name Start new named session
screen -r name Reattach to detached session
screen -x name Attach to already-attached session (share)
screen -d name Detach a remote session
screen -d -r name Detach elsewhere, reattach here
screen -D -RR Force detach and reattach (aggressive)
screen -ls List all sessions with PIDs
screen -wipe Clean up dead sessions
```

## Windows

### Window Basics

```
Ctrl-a c Create new window
Ctrl-a n Next window
Ctrl-a p Previous window
Ctrl-a 0-9 Switch to window by number
Ctrl-a " List all windows (interactive)
Ctrl-a ' Switch to window by name/number
Ctrl-a A Rename current window
Ctrl-a k Kill current window
```

### Window Management

```
Ctrl-a w Show window list in status line
Ctrl-a Ctrl-a Toggle between last two windows
Ctrl-a N Show window number and name
exit / Ctrl-d Close window (exit shell)
```

## Split & Regions

### Split Commands

```
Ctrl-a S Split horizontally (top/bottom)
Ctrl-a | Split vertically (left/right)
Ctrl-a Tab Move focus to next region
Ctrl-a X Close current region
Ctrl-a Q Close all regions except current
```

### Region Workflow

```
Ctrl-a S # split horizontal
Ctrl-a Tab # move to new region
Ctrl-a c # create window in region
Ctrl-a :resize 20 # set region to 20 lines
```

## Copy Mode

### Scrollbar & Copy

```
Ctrl-a [ Enter copy/scrollback mode
Space Start/end selection (in copy mode)
Enter Copy selection and exit copy mode
Ctrl-a ] Paste copied text
h/j/k/l Move cursor (vi keys in copy mode)
Ctrl-u / Ctrl-d Scroll up/down half page
/ or ? Search forward/backward
Esc Exit copy mode
```

## Copy Workflow

```
Ctrl-a [ # enter copy mode
Space # mark start (navigate first)
Space # mark end + copy (navigate first)
Ctrl-a ] # paste into current window
```

## Detach & Reattach

### Detach

```
Ctrl-a d Detach current session
Ctrl-a D D Detach and log out
Ctrl-a z Suspend screen (like Ctrl-Z)
screen -d PID Remotely detach session by PID
```

### Reattach

```
screen -r # reattach (if only one session)
screen -r work # reattach by name
screen -r 12345 # reattach by PID
screen -d -r work # steal session from other terminal
```

### Persistent Workflows

```
# Start long-running task, detach, reconnect later
screen -S build
make -j4 all # start build
Ctrl-a d # detach, go home
screen -r build # reattach later
```

## Sharing

### Multi-User Mode

```
# Host enables multiuser
Ctrl-a :multiuser on
Ctrl-a :acladd alice # grant access to user alice
# Alice attaches
screen -x hostuser/sessionname
```

### Access Control

```
:multiuser on Enable multi-user mode
:acladd user Grant user full access
:aclchg user -w '#' Make user read-only (all windows)
:acldel user Remove user access
screen -x user/sess Attach to shared session
```

## Configuration

### ~/.screenrc Essentials

```
startup_message off # skip splash screen
defscrollback 10000 # scrollbar buffer lines
hardstatus alwayslastline
hardstatus string '%{gk}%H %{wk}%?-Lw%?{bw}%n%f %t%{wk}%?+Lw%?'
shell -$SHELL # use login shell
```

### Useful Settings

```
startup_message off Suppress startup message
defscrollback N Set scrollbar buffer (default 100)
escape ^Bb Change prefix key to Ctrl-b
shelltitle '$ |bash' Auto-set window titles
caption always '%n %t' Always show caption with window info
autodetach on Auto-detach on hangup (default on)
vbell on Use visual bell instead of audible
```

## Common Patterns

### Development Setup

```
# Auto-create windows in .screenrc
screen -t editor 0 vim
screen -t server 1 python -m http.server
screen -t shell 2 bash
select 0 # start on editor window
```

### Logging & Monitoring

```
Ctrl-a H # toggle logging to screenlog.N
Ctrl-a M # monitor window for activity
Ctrl-a _ # monitor window for silence
```

## Quick Reference

```
Ctrl-a ? Show all key bindings
Ctrl-a :help Built-in help
Ctrl-a :source file Load config file
Ctrl-a :screen cmd Run command in new window
Ctrl-a :quit Kill all windows and exit session
```