

RTFM - Screen

Sean Cody
MUUG

September 14, 2010

<http://bit.ly/muug-screen>

What is it?

- Officially called GNU Screen.
- It is a terminal multiplexer.
- A bad analogy is a CLI window manager.
- Think about a more flexible TTY switching.
 - eg. CTRL-ALT-F#

What is a terminal multiplexer?

- Allows the usage of multiple terminals over top of a main terminal.
- Think of it like a 'window' manager for the command line.

Why would you use it?

- If you use the shell A LOT and don't like having a bunch of xterms open or you want to organize your xterms/putty terminals by grouping them.
- If you want an easy and simple way to background a process or set of processes.
 - Such as lurking on SILC or IRC.
 - Downloading a giant file on a remote system.
 - Compiling a large application/kernel/system on a remote system.
 - Doing a lengthy and chatty batch job.
- Share a session with someone remotely for training or collaboration.

General Commands

- Creation & Destruction
 - CTRL-a c - Create a new window/shell.
 - CTRL-a k - Kill the current window.
- Navigation
 - CTRL-a 0-9 - Got to window corresponding to number.
 - CTRL-a a - Toggle between current & previous window.
 - CTRL-a n - Next window relative to current.
 - CTRL-a p - Previous window relative to current.

General Commands

- Exit stage left...
 - CTRL-a d - Detach screen.
 - CTRL-a CTRL-\ - Nuke all windows and quit.
 - Exit all windows and shells and the last window to close will also close screen.
- Resuming normalcy.
 - 'screen -list' - Show suspended sessions.
 - 'screen -r \$id' - Resume a specific session.
 - 'screen -xr' - Resume a possibly un-detached session.

Cut & Paste

- What's a good window manager without clipboard management?
- CTRL-a [
 - Enter copy mode (or view scroll back buffer)
- CTRL-a]
 - Paste
- Hit ESC to cancel and effectively just view the scroll back buffer.

Split-Screen

- CTRL-a S - Split Screen (stacked)
- CTRL-a TAB - Switch between next split window.
- CTRL-a x - Remove current region.
- CTRL-a k - Kill current screen.
- Does not persist between sessions.
- Resize... CTRL : resize [+/-#, =]
- Some patches allow for vertical splits
 - <http://fungi.yuggoth.org/vsp4s/>
 - Byobu ('a prettier screen')

Serial Terminal

- A lesser known but extremely power feature is using screen to attach to serial terminals.
- Very useful for headless servers, routers, embedded control boards, GPS devices, or any gadget that interfaces via RS-232 (even modems).
- CTRL-a CTRL-b - Send break command
 - Useful for Sun boot interruption.
- `screen $device $speed`
 - `screen /dev/tty.usbserial0 19200`

Screen Configuration

- `.screenrc`
- `'defscrollback 1024'`
 - Default 100
- `'startup_message off'`
 - I don't need to be reminded GNU screen copyrights and version on every invocation.
- `screen -t "top" top`
 - Create a window called "top" and run top inside it.

Screen Configuration

- Not a huge fan of these as I don't like straying from base configs too much (support and future proofing my sanity).
- `screen(1)` man-page will have lots more and a Google search for `.screenrc` will have many many more examples.

Screen Alternatives

tmux

- BSD variant terminal multiplexor.
- Imported into OpenBSD base.
- Very similar to screen but has advanced features.
 - multiple vertical and horizontal splits, movements and resize in the same window (ie. tiling)
 - uses CTRL-b instead of CTRL-a for commands but can be changed to be screen compatible.

Screen Alternatives

Byobu

- Screen enhancement.
- <https://launchpad.net/byobu>
- <http://kmandla.wordpress.com/2010/01/03/byobu-a-shortcut-to-a-prettier-screen/>