

tmux - Terminal Multiplexer

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Overview

- Dramatically expands what can be done with terminal windows
- Alternative to older program named “screen”
- Often used for interactive server sessions
 - that can survive network disconnections

Book

- **tmux: Productive Mouse-Free Development**
 - Brian P. Hogan
 - Pragmatic Programmers

For You?

- Do you work in a Unixey environment?
- Do you frequently use terminal windows?
- Do you value using keyboard shortcuts?

tmux Commands

- Large number of them
- Many ways to execute
 - command-line
 - shell script
 - command mode in tmux client
 - keyboard shortcut in tmux client
 - tmux configuration file

Key Bindings

- Prefix key
 - C-b by default; many change to C-a
- Meta key
 - abbreviated as M; cmd-option on Mac
- Commands
 - `list-keys` or prefix ?
 - `bind-key [-r] {key} {command}`
 - `-r` allows repeated used without prefix
 - `unbind-key {key}`

Terminology

- server
- client
- session
- window
- pane
- status bar

Sample Session

- Demo time!

Session Actions

- new
- detach
- attach
- list
- rename
- switch - one being displayed
- kill

Window Actions

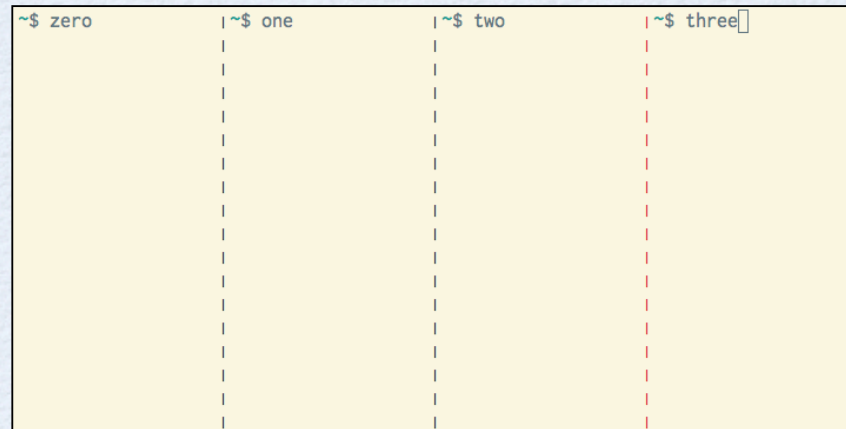
- new
- rename
- switch - one being viewed
- list
- move - to a different session
- kill

Pane Actions

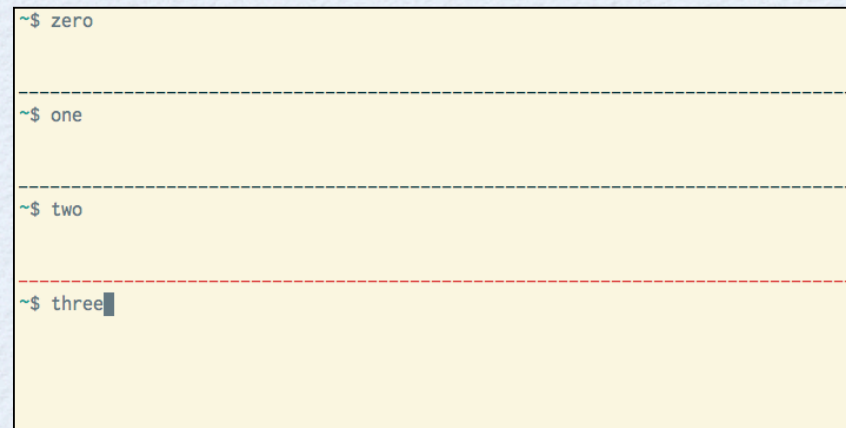
- new - via split
- switch - one that is active
- change layout
- resize
- rotate - to change position of all
- swap - to change position of two
- move - to different window
- execute command - from a script into a specific pane
- kill

Predefined Pane Layouts ...

- even-horizontal

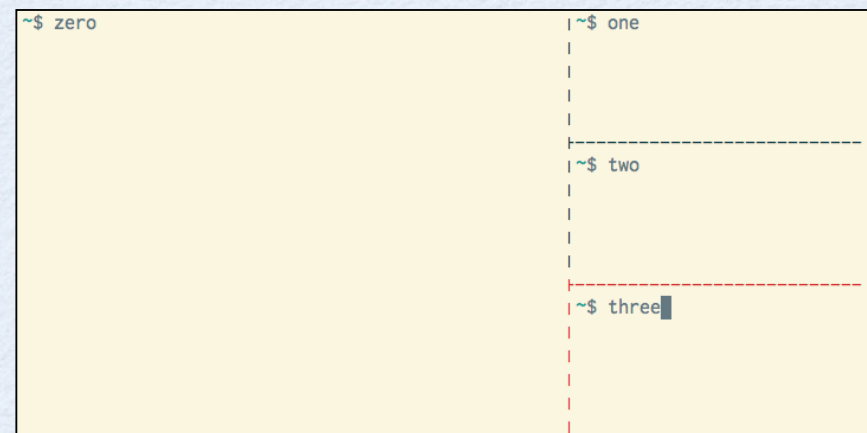
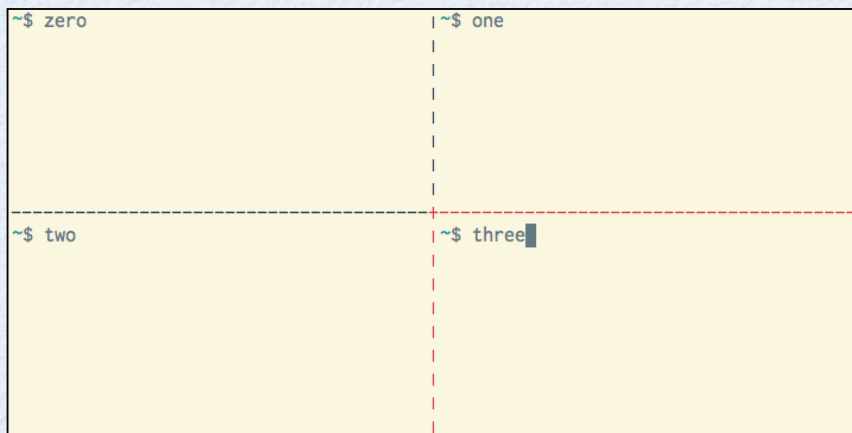
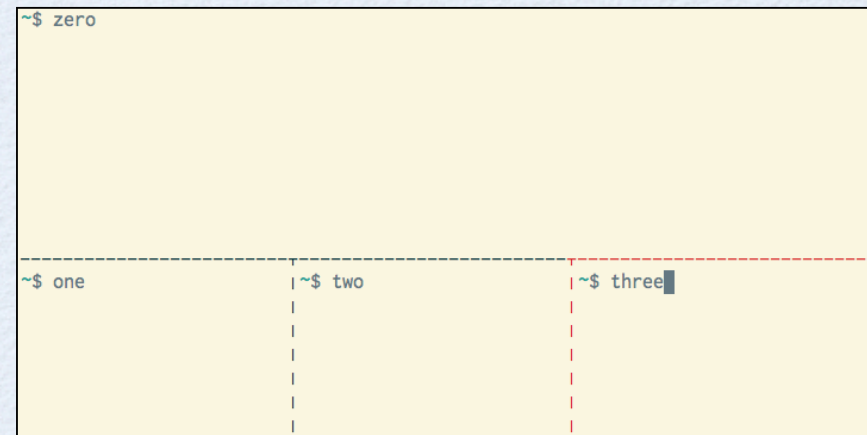


- even-vertical



... Predefined Pane Layouts

- main-horizontal
- main-vertical
- tiled



Buffers

- Each pane has a buffer that stores commands entered and their output
 - has a limited size that defaults to 2000 lines
- Enter “copy mode” to scroll through and copy lines
- Each copy adds a “paste buffer” to a stack
 - has a limited size that defaults to 20

Copy Mode Actions

- enter copy mode
- exit copy mode
- move cursor
- copy selected text
- copy all visible text
- list paste buffers
- view paste buffer contents
- save paste buffer content to a file
- paste text from a paste buffer
- change paste buffer stack size
- delete one paste buffer
- delete all paste buffers

Configuration Options

- Three kinds
 - server
 - session
 - window
- Option scope
 - global
 - specific session
 - specific window
- Actions
 - set option
 - show option

Configuration Files

- Looks for `~/.tmux.conf` first
- Then looks for `/etc/tmux.conf`
- Let's examine mine!

Scripting

- Consider creating one setup script for each project
- Creates a new project session if it doesn't exist
 - creates windows
 - splits them into panes
 - starts commands in some windows
 - ex. editor, file watching apps, ssh, ...
- Otherwise, attaches to existing session
- Let's examine one of mine!

Collaboration

- ssh to a remote server
- Start a tmux session there
- Ask others to
 - ssh to same remote server
 - attach to same tmux session
- Collaborate!

Multiple Monitors

- Run client in first monitor attached to main session
- Run client in other monitors attached to a new session that is “grouped” with main session
- Allows each client to view a different window in main session
- Set window option “aggressive-resize” to “on”
 - allows each client window to be a different size

Mac Specific Advice

- Use iTerm2
- Change some System Preferences
- Change some iTerm2 Preferences
- For details, see my OCI SETT article
 - <http://sett.ociweb.com/sett/settJan2013.html>

Thanks For Listening!

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