



## Getting Started with tmux

### Basic Concepts

#### What is tmux?

tmux is a terminal multiplexer: It allows you to run multiple terminal sessions within a single window. This is particularly useful for managing multiple programs from a single terminal, and for detaching and reattaching sessions.

#### Key Binding Prefix

Most tmux commands are prefixed with a key combination. By default, this is `Ctrl+b` (C-b). In this cheat sheet, `C-b` will be used to represent this prefix.

### Starting and Ending Sessions

<code>tmux</code>	Starts a new tmux session.
<code>tmux new -s &lt;session_name&gt;</code>	Starts a new named session.
<code>tmux attach</code>	Attaches to the default session.
<code>tmux attach -t &lt;session_name&gt;</code>	Attaches to a specific session.
<code>C-b d</code>	Detaches the current session (leaves tmux running in the background).
<code>exit</code> or <code>C-d</code>	Closes the current pane/window. Closes the session if it's the last one.

### Basic Navigation

<code>C-b ?</code>	Shows the help screen with available key bindings.
<code>C-b s</code>	Lists all tmux sessions and allows switching between them.
<code>tmux ls</code>	Lists all active tmux sessions (from the command line).

## Working with Windows and Panes

### Window Management

<code>C-b c</code>	Creates a new window.
<code>C-b ,</code>	Renames the current window.
<code>C-b n</code>	Goes to the next window.
<code>C-b p</code>	Goes to the previous window.
<code>C-b 0-9</code>	Goes to the specified window number.
<code>C-b w</code>	Displays a list of windows for selection.
<code>C-b &amp;</code>	Kills the current window (prompts for confirmation).

### Pane Management

<code>C-b "</code>	Splits the current pane horizontally.
<code>C-b %</code>	Splits the current pane vertically.
<code>C-b &lt;arrow_key&gt;</code>	Moves to the pane in the direction of the arrow key (up, down, left, right).
<code>C-b o</code>	Moves to the next pane.
<code>C-b {</code>	Swaps the current pane with the previous pane.
<code>C-b }</code>	Swaps the current pane with the next pane.
<code>C-b x</code>	Kills the current pane (prompts for confirmation).
<code>C-b !</code>	Breaks the current pane out into a new window.
<code>C-b q</code>	Briefly displays pane numbers, allowing you to jump to a specific pane by pressing its number.

## Advanced Features and Customization

### Copy Mode and Scrolling

<code>C-b [</code>	Enters copy mode, allowing you to scroll and copy text.
<code>C-b ]</code>	Pastes the last copied text.
<code>Space</code>	In copy mode, starts text selection.
<code>Enter</code>	In copy mode, copies the selected text.
<code>q</code>	Exits copy mode.
<code>C-s</code>	In copy mode, enters search mode to find text within the buffer.
<code>n/N</code>	In copy/search mode, goes to the next/previous search result.

### Configuration

tmux behavior can be configured through the `~/.tmux.conf` file. This file is read when tmux starts.

#### Example Configuration:

```
# Set the prefix to Ctrl+a
unbind C-b
set -g prefix C-a
bind C-a send-prefix

# Enable mouse support
set -g mouse on

# Set default terminal mode
set -g default-terminal "xterm-256color"

# Reload configuration
bind r source-file ~/.tmux.conf \; display
"~/.tmux.conf reloaded!"
```

### Useful settings for .tmux.conf

<code>set -g mouse on</code>	Enables mouse support for pane selection, resizing and scrolling.
<code>set -g default-terminal "xterm-256color"</code>	Sets the default terminal type for better color support.
<code>bind r source-file ~/.tmux.conf \; display ~/.tmux.conf reloaded!"</code>	Binds <code>C-b r</code> to reload the configuration file.
<code>set -g status-position top</code>	Positions the status bar at the top of the screen.
<code>setw -g automatic-rename on</code>	Automatically renames windows based on the running program.
<code>set -g history-limit 5000</code>	Increase the history limit

## Status Bar Customization

## Status Bar Options

<code>set -g status-justify</code> <code>&lt;left center right&gt;</code>	Justifies the status bar content.
<code>set -g status-left</code> <code>'...'</code>	Sets the content for the left side of the status bar.
<code>set -g status-right</code> <code>'...'</code>	Sets the content for the right side of the status bar.
<code>set -g status-style</code> <code>'bg=#333333</code> <code>fg=#aaaaaa'</code>	Sets the background and foreground colors for the entire status bar.
<code>setw -g window-</code> <code>status-style</code> <code>'fg=#bbbbbb</code> <code>bg=default'</code>	Sets the style for inactive windows in the status bar.
<code>setw -g window-</code> <code>status-current-style</code> <code>'fg=#ffffff bg=#333333</code> <code>bold'</code>	Sets the style for the active window in the status bar.

## Status Bar Variables

<code>#</code> <code>(date)</code>	Executes a shell command and displays its output.
<code>#I</code>	Displays the window index.
<code>#S</code>	Displays the session name.
<code>#W</code>	Displays the window name.
<code>#H</code>	Displays the hostname.
<code>#T</code>	Displays the pane title.

## Status Bar Examples

### Example Status Bar Configuration

```
set -g status-bg black
set -g status-fg white
set -g status-left '#[fg=green]Session: #S #
[fg=yellow]#I #[fg=cyan]#P#[default] '
set -g status-right '#[fg=cyan]%Y-%m-%d %H:%M#
[default]'
```

This configuration sets a black background and white foreground for the status bar, displays the session name, window index, and pane index on the left, and the current date and time on the right.