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Productive
Mouse-Free
Development



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Copying and Pasting Text

Moving around and looking for things in the output buffer is usually only half the equation. You often need to copy some text so you can do something useful with it. tmux's Copy mode gives us the opportunity to select and copy text to a paste buffer so you can dump that text elsewhere.

To copy text, enter Copy mode and move the cursor to where you want to start selecting text. Then press `SPACE` and move the cursor to the end of the text. When you press `ENTER`, the selected text gets copied into a paste buffer.

To paste the contents you just captured, press `PREFIX]`.

Let's look at a few ways to copy and paste text from the main output buffer.

Capturing a Pane

tmux has a handy shortcut that copies the entire visible contents of a pane to a paste buffer. Enter tmux's Command mode with `PREFIX :` and type the following command:

```
capture-pane
```

The contents of the pane will be in a paste buffer. You can then paste that content into another pane or window by pressing `PREFIX]`.

When you capture a pane, tmux captures the text exactly as it's displayed. If the pane's width is too small, causing text to wrap to the next line, then tmux will preserve the line break when you capture the pane by inserting newline characters into the captured text. To avoid this, pass the `-j` option to `capture-pane`. The copied text will no longer contain newline characters.

Showing, Saving, and Loading the Buffer

You can display the contents of your paste buffer by using the `show-buffer` command in Command mode, or from a terminal session like this:

```
$ tmux show-buffer
```

By using the `save-buffer` command, you can save the buffer to a file, which can often be a real time saver.

You can capture the contents of the current pane to a text file. In Command mode, execute the command `capture-pane; save-buffer buffer.txt` to capture the pane and save it to the file `buffer.txt`. You could easily map that command to a keystroke if you wanted.

Finally, you can load a file into the buffer with `load-buffer`. In Command Mode, execute the command `load-buffer buffer.txt` to load `buffer.txt` back into the buffer.

Using Multiple Paste Buffers

tmux maintains a stack of paste buffers, which means you can copy text without replacing the buffer's existing content. This is much more flexible than the traditional clipboard offered by the operating system.

Every time you copy some new text, tmux creates a new paste buffer, putting the new buffer at the top of the stack. To demonstrate, fire up a new tmux session and load up a text editor such as Vim or Nano within the session. In the editor, type the following sentences, one per line:

```
First sentence is first.
Next sentence is next.
Last sentence is last.
```

Now copy some text to the paste buffer using tmux. Enter Copy mode with `PREFIX]`. Move to the start of the first sentence, press `SPACE` to start selecting text, move to the end of the first sentence, and press `ENTER` to copy the selection. Repeat this with the second and third sentences.

Each time you copy text, tmux creates a new buffer. You can see these buffers with the `list-buffers` command. Issue that command through Command mode in tmux and you'll see three buffers, each containing one of the lines you copied:

```
buffer2: 22 bytes: "Last sentence is last."
buffer1: 22 bytes: "Next sentence is next."
buffer0: 25 bytes: "First sentence is first."
```

Pressing `PREFIX]` always pastes the most recently-captured text, but you can issue the command `choose-buffer` to select a buffer and paste the contents into the focused pane.

Split the current window in half and launch Nano in the second pane, then enter Command mode and type this:

```
choose-buffer
```

You'll be presented with a list that looks like this:

```

GNU nano 7.2                               New Buffer *
First sentence is first.
Next sentence is next.
Last sentence is last.

^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^M Go To Line

(0) buffer2: 02:50: Last sentence is last.
(1) buffer1: 02:50: Next sentence is next.
(2) buffer0: 02:50: First sentence is first.

```

You can select any entry in the list, press `ENTER`, and the text will be inserted into the selected pane automatically.

This is an excellent way to manage multiple bits of text, especially in text-based environments where you don't have access to an OS-level clipboard.

These buffers are shared across *all* running tmux sessions, too, so you can take content from one session and paste it into another.

Notice that each buffer has a name when you run the `list-buffers` command:

```

buffer2: 22 bytes: "Last sentence is last."
buffer1: 22 bytes: "Next sentence is next."
buffer0: 25 bytes: "First sentence is first."

```

The `paste-buffer` command lets you specify the source. Instead of pressing `PREFIX-]` to paste the most recently-copied text, enter Command Mode and use `paste-buffer` and specify the buffer you want to paste from. For example, to grab the text from `buffer1`, enter the following command in Command Mode:

```
paste-buffer -b buffer1
```

If you don't like these default buffer names, you can rename a buffer. Enter Command Mode and issue the following command to change `buffer2` to something easier to remember:

```
set-buffer -b buffer2 -n last-sentence
```

Now when you look at the list of buffers, you'll see the buffer's name has changed:

- last-sentence: 22 bytes: "Last sentence is last."
- buffer1: 22 bytes: "Next sentence is next."
- buffer0: 25 bytes: "First sentence is first."

There's no direct way to use `save-buffer` to copy text into a buffer and specify the name at the same time. However, you can do this with a custom keybind-

ing though. You'll see an example of that in [Integrating tmux with System Clipboards, on page ?](#). However, the `load-buffer` command lets you load text into a named buffer if you pass the `-b` flag. For example, to load the contents of `buffer.txt` into a buffer called `code`, enter Command Mode and use `load-buffer -b code buffer.txt`.

Remapping Copy and Paste Keys

If you use Vim and you'd like to make the copy and paste command keys a little more familiar, you can remap the keys in your configuration. For example, you can use `PREFIX ESCAPE` to enter Copy mode, then use `v` to start Visual mode to select your text, use `y` to "yank" text into the buffer, and use `p` to paste the text:

buffers/tmux.conf

```
bind Escape copy-mode
bind-key -T copy-mode-vi v send -X begin-selection
bind-key -T copy-mode-vi y send -X copy-selection
unbind p
bind p paste-buffer
```

This can be a real productivity boost if you happen to do a lot of copying and pasting between windows and panes and are already comfortable with the keys that Vim uses.

Now that you understand how buffers work, and how to change keys related to copying and pasting text, you can integrate tmux with your operating system's clipboard.