

How-to: Using screen or tmux to preserve a Linux terminal session

Use screen to prevent "Broken Pipe" messages and terminal session timeouts

Why?

When connecting to our systems (head, headnode7, lmm, etc.) via PuTTY, or terminal in mac when there is a disruption in the ssh connection, you will see a "Broken Pipe" error and lose access to any programs that were running, without being able to recover them. Screen and tmux allow you to "detach" a session (i.e. keep it running in the background), and move on to another task in the same terminal window, or disconnect from the machine and let your code keep running.

Basic Linux Screen Usage

1. After connecting to a machine from PuTTY, terminal, etc., type

```
screen
```

2. Run the desired program
3. Use the key sequence **ctrl ad** to detach from the screen session, this will keep it running in the background and return to your main shell
 - a. Note, if you do not detach the session, you can restore if the connection drops by reconnecting and running **screen -r**
4. To see a list of active screen sessions, type

```
screen -ls
```

5. Reattach to the **screen** session by typing

```
screen -r [your session id here]
```

There are many useful tutorials for using **screen** to preserve terminal sessions, here is one: <https://linuxize.com/post/how-to-use-linux-screen/#starting-linux-screen>

Basic tmux usage

1. After connecting to a machine from PuTTY, terminal, etc., type

```
tmux
```

2. Run the desired program
3. Use the key sequence **Ctrl+b d** to detach the session
4. To see a list of active **tmux** sessions

```
tmux -ls
```

5. To reattach a **tmux** session type

```
tmux attach-session -t [your session id here]
```

There are many useful tutorials for using **tmux** to preserve terminal sessions, here is one: <https://linuxize.com/post/getting-started-with-tmux/#starting-your-first-tmux-session>