# README

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### 1 mssh-menu

#### 1.1 Info

SSH into multiple devices from a single command, splitting the screen, and synchronize the keyboard input.

The devices are selected from a menu. This menu is generated from a CSV file the user creates.

### 1.2 Overview

First, create a CSV file with the first column being the IP address or hostname of the device. Then create additional columns containing the tags which will end up being the groups.

Run mssh-menu.py by supplying the command and the name of the CSV file as the argument.

For example, to run mssh-menu.py with the file servers.csv and both files are in the current directly, enter the following:

#### ./mssh-menu.py servers.csv

By default, if no file is supplied, the script will look for a file named servers.csv in the user's home directory.

For a list of commands run mssh-menu.py with the -h or --help options.

# 1.3 Screenshots

Figure 1: Running the script and using the menu

```
todd@todd-firefly14: ~/mssh-menu
                                                                                                                                                         Q =
— [ #1 server1 ]
68.122.247
                                                                                           ___ [ #2 server2 ]
8.122.130
                                                                                             Swap usage:
  Swap usage:
Expanded Security Maintenance for Applications is not enabled.
                                                                                           Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
                                                                                           0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
                                                                                           Enable ESM Apps to receive additional future security updates.
                                                                                           See https://ubuntu.com/esm or run: sudo pro status
Last login: Wed Aug 30 03:55:55 2023 from 192.168.122.1
                                                                                           Last login: Wed Aug 30 03:55:55 2023 from 192.168.122.1
todd@server1:~$ uname -a
Linux server1 5.15.0-82-generic #91-Ubuntu SMP Mon Aug 14 14:14:1
                                                                                                  server2:~$ uname -a
                                                                                           Linux server2 5.15.0-82-generic #91-Ubuntu SMP Mon Aug 14 14:14:14
                                                                                            UTC 2023 x86_64 x86_64 x86_64 GNU/Linux
todd@server2:~$ uptime
03:58:19 up 20 min, 2 users, load average: 0.08, 0.08, 0.05
4 UTC 2023 x86_64 x86_64 x86_64 GNU/Linux
todd@server1:~$ uptime
03:58:19 up 20 min, 2 users, load average: 0.00, 0.04, 0.06
Usage of /: 24.8% of 19.51GB

Memory usage: 26%
68.122.248
                                                                                             - [ #4 server4 ]
Usage of /: 24.8% of 19.51GB Users logged in: 1
Memory usage: 26% IPv4 address for enp1s0: 192.16
                                               Users logged in: 1
IPv4 address for enp1s0: 192.1
                                                                                           Memory usage: 26%
8.122.22
  Swap usage: 0%
                                                                                             Swap usage:
Expanded Security Maintenance for Applications is not enabled.
                                                                                           Expanded Security Maintenance for Applications is not enabled.
 updates can be applied immediately.
                                                                                           0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
                                                                                           Enable ESM Apps to receive additional future security updates.
                                                                                           See https://ubuntu.com/esm or run: sudo pro status
Last login: Wed Aug 30 03:55:55 2023 from 192.168.122.1
                                                                                           Last login: Wed Aug 30 03:55:55 2023 from 192.168.122.1
Last togin: Wed Aug 30 03:53:53:52023 from 192.108.122.1 todd@server3:~$ uname -a
Linux server3 5.15.0-82-generic #91-Ubuntu SMP Mon Aug 14 14:14:1
4 UTC 2023 x86_64 x86_64 x86_64 GNU/Linux
todd@server3:~$ uptime
03:58:19 up 19 min, 2 users, load average: 0.03, 0.06, 0.03
todd@server3:~$ Users, load average: 0.02, 0.08, 0.07
todd@server3:~$ Users, load average: 0.02, 0.08, 0.07
```

Figure 2: Logged into multiple devices and typing the same commands once

#### 1.4 Requirements

The following are requirements to run this script:

- python3
- ssh
- tmux

# 1.5 Sample servers.csv file

```
host,tags,,,,
server1,Site 1 servers,,Odd numbered servers,,All servers
server2,Site 1 servers,,Even numbered servers,All servers
server3,,Site 2 servers,Odd numbered servers,All servers
server4,,Site 2 servers,Even numbered servers,All servers
```

Or in human readable form:

host	tags				
server1	Site 1 servers		Odd numbered servers		All servers
server2	Site 1 servers			Even numbered servers	All servers
server3		Site 2 servers	Odd numbered servers		All servers
server4		Site 2 servers		Even numbered servers	All servers

# 1.6 TMUX defaults

It is important to mention that this assumes you have set tmux to start windows and panes at 1 instead of the default 0.

```
Here is my default .tmux.conf file for reference.
# Improve colors
set -g default-terminal screen-256color

# Set scrollback buffer to 10000
set -g history-limit 10000

# Enable mouse mode (tmux 2.1 and above)
set -g mouse on

# Set first windows and pane to index of 1 (instead of zero)
set -g base-index 1
set -g pane-base-index 1
```