

Messing With Linux

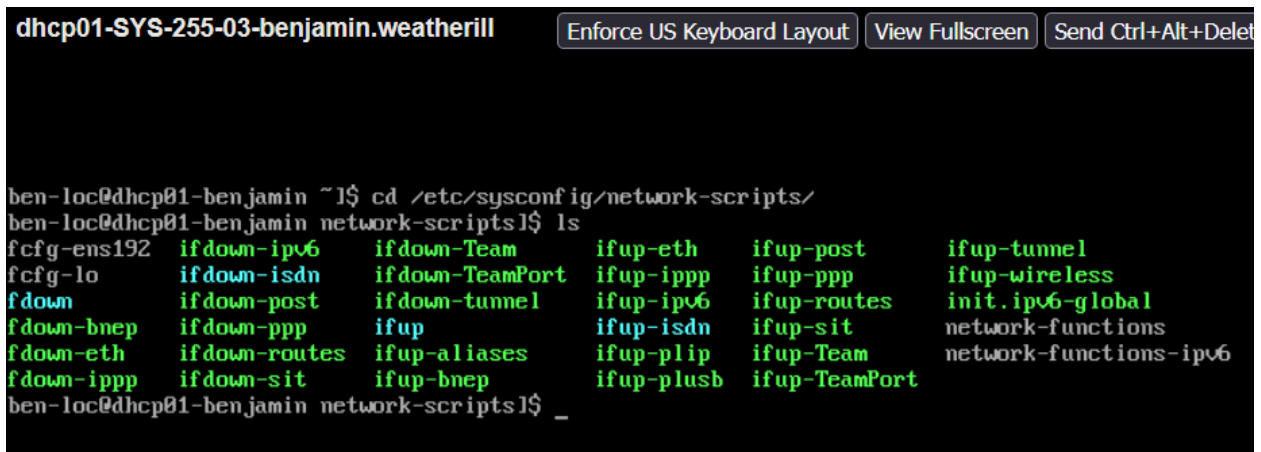
SYS255

Ben W

FA23

Deliverables:

1. Five common dirs and their purpose
 - a. Home dir | /home
 - i. Holds users home directories
 - b. Root Dir | /
 - i. Holds literally everything
 - c. Dev dir | /dev
 - i. Holds device files
 - d. Sbin Dir | /sbin
 - i. Holds system binaries
 - e. Root dir | /root
 - i. Roots home directory
2. The command would be `cd /etc/sysconfig/network-scripts/`



```
dhcp01-SYS-255-03-benjamin.weatherill Enforce US Keyboard Layout View Fullscreen Send Ctrl+Alt+Delet

ben-loc@dhcp01-benjamin ~1$ cd /etc/sysconfig/network-scripts/
ben-loc@dhcp01-benjamin network-scripts1$ ls
fcfg-ens192  ifdown-ipv6      ifdown-Team      ifup-eth         ifup-post        ifup-tunnel
fcfg-lo      ifdown-isdn      ifdown-TeamPort  ifup-ippv        ifup-ppp         ifup-wireless
fdown       ifdown-post      ifdown-tunnel    ifup-ipv6        ifup-routes      init.ipv6-global
fdown-bnep   ifdown-ppp       ifup             ifup-isdn        ifup-sit         network-functions
fdown-eth    ifdown-routes    ifup-aliases     ifup-plip        ifup-Team        network-functions-ipv6
fdown-ippv   ifdown-sit       ifup-bnep        ifup-plusb       ifup-TeamPort
```

3. Mkdir will create a directory and cp will copy from one place to another

```
ben-loc@dhcp01-benjamin ~l$ mkdir sys255
ben-loc@dhcp01-benjamin ~l$ cd sys255/
ben-loc@dhcp01-benjamin sys255l$ mkdir assignments
ben-loc@dhcp01-benjamin sys255l$ cd assignments/
ben-loc@dhcp01-benjamin assignmentsl$ cp /etc/hosts
cp: missing destination file operand after '/etc/hosts'
Try 'cp --help' for more information.
ben-loc@dhcp01-benjamin assignmentsl$ cp /etc/hosts .
ben-loc@dhcp01-benjamin assignmentsl$ ls
hosts
ben-loc@dhcp01-benjamin assignmentsl$ ls -la
total 4
-rwxrwxr-x. 2 ben-loc ben-loc 19 Sep 18 13:23 .
-rwxrwxr-x. 3 ben-loc ben-loc 25 Sep 18 13:22 ..
-rw-r--r--. 1 ben-loc ben-loc 158 Sep 18 13:23 hosts
ben-loc@dhcp01-benjamin assignmentsl$
```

If I were to do this all from my home directory I would just use longer paths. For the cp:
cp /etc/hosts ~/sys255/assignments/

4. The two major text editors in linux are vi(m) and nano

Nano:

```
GNU nano 2.3.1      File: hosts
27.0.0.1  localhost localhost.localdomain localhost4 localhost4.localdomain4
:1        localhost localhost.localdomain localhost6 localhost6.localdomain6

[ Read 2 lines ]
^G Get Help      ^O WriteOut      ^R Read File     ^Y Prev Page     ^K Cut Text      ^C Cur Pos
^X Exit          ^J Justify       ^W Where Is      ^U Next Page     ^U UnCut Text    ^T To Spell
```

$V_i(m):$

```
127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
```

"hosts" 2L, 158C

1,1 All

5. `/etc/passwd` holds a list of user accounts

```
[ben-loc@dhcp01-benjamin assignments]$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:999:998:User for polkitd:/:/sbin/nologin
libstoragemgmt:x:998:997:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
abrt:x:173:173:/:etc/abrt:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
postfix:x:89:89:/:var/spool/postfix:/sbin/nologin
chrony:x:997:995:/:var/lib/chrony:/sbin/nologin
ntp:x:38:38:/:etc/ntp:/sbin/nologin
tcpdump:x:72:72:/:/sbin/nologin
ben-loc:x:1000:1000:~/home/ben-loc:/bin/bash
[ben-loc@dhcp01-benjamin assignments]$ _
```

6. The command would be “adduser -p password champlain”

```
[ben-loc@dhcp01-benjamin assignments]$ sudo adduser -p password champlain
[sudo] password for ben-loc:
Sorry, try again.
[sudo] password for ben-loc:
[ben-loc@dhcp01-benjamin assignments]$ ls /home
ben-loc  champlain
[ben-loc@dhcp01-benjamin assignments]$ _
```

7. GREP! An amazing command.

```
[ben-loc@dhcp01-benjamin ~]$ cat /etc/passwd | grep ben-loc
ben-loc:x:1000:1000:~/home/ben-loc:/bin/bash
[ben-loc@dhcp01-benjamin ~]$ _
```

8. You start with the NetworkManager (this will need to be installed)

- a. To start the “gui” run the command `sudo nmtui`
- b. Select Edit a connection
- c. Select Edit... on the adapter you want to edit
- d. Edit the IPv4 Configuration with your static IP and default gateway
- e. Once done, Select OK
- f. Select Back
- g. Select Quit
- h. Run the command `sudo systemctl restart network`

- i. <https://github.com/benjamin-weatherill/SYS255/wiki/Lab-03-%E2%80%90-Linux-Configuration>
9. The *shell* in Linux is your command line interface. In this case we are using bash.
10. The command `su` will switch user but not start a new shell for them. `sudo -i` Will start a new shell in the root home directory. If you use the command `su -`, this will do the same thing as `sudo -i`.

```
[ben-loc@dhcp01-benjamin ~]$ su
Password:
[root@dhcp01-benjamin ben-loc]# pwd
/home/ben-loc
[root@dhcp01-benjamin ben-loc]# exit
exit
[ben-loc@dhcp01-benjamin ~]$ sudo -i
[root@dhcp01-benjamin ~]# pwd
/root
[root@dhcp01-benjamin ~]# exit
logout
[ben-loc@dhcp01-benjamin ~]$ pwd
/home/ben-loc
[ben-loc@dhcp01-benjamin ~]$ _
```

11. To get more information about a command you can use the `man` command.

```

TEE(1)                                User Commands                                TEE(1)

NAME
    tee - read from standard input and write to standard output and files

SYNOPSIS
    tee [OPTION]... [FILE]...

DESCRIPTION
    Copy standard input to each FILE, and also to standard output.

    -a, --append
        append to the given FILES, do not overwrite

    -i, --ignore-interrupts
        ignore interrupt signals

    --help display this help and exit

    --version
        output version information and exit

    If a FILE is -, copy again to standard output.

    GNU coreutils online help: <http://www.gnu.org/software/coreutils/> Report tee translation
    bugs to <http://translationproject.org/team/>

AUTHOR
    Written by Mike Parker, Richard M. Stallman, and David MacKenzie.

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    later <http://gnu.org/licenses/gpl.html>.
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    to the extent permitted by law.

Manual page tee(1) line 1 (press h for help or q to quit)

```

```
ben-loc@dhcp01-benjamin ~]$ man tee_
```

12. w

```

ben-loc@dhcp01-benjamin ~]$ w
13:50:25 up 6 days, 23:36, 2 users, load average: 0.00, 0.01, 0.05
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1                    11Sep23   1.00s   3.36s   2.93s ssh localhost
ben-loc   pts/0    localhost     11Sep23   1.00s   0.60s   0.09s w
ben-loc@dhcp01-benjamin ~]$

```

Or who

```

ben-loc@dhcp01-benjamin ~]$ who
root      tty1                2023-09-11 14:16
ben-loc   pts/0                2023-09-11 14:42 (localhost)

```