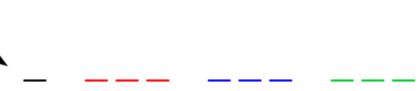
Permissions

Permissions determine who can read a file or directory, write to it, and execute it.

```
-rwxr-xr-- 1 burak burak 656 Jul 14 10:05 qeinput.py
drwxr-xr-- 1 burak burak 656 Jul 14 10:05 inputs_folder
-rw-rw-r-- 1 burak burak 547 Jul 14 10:05 scf.in
```



```
-   : is equal to d if directory
---  : owner read, write, execute
---  : group read, write, execute
---  : others read, write, execute
```

Permissions

Numerical values for each permission:

Read = 4, Write = 2, Execute = 1

Add the number value of the permissions you want to grant each group to make a three digit number, one digit each for the owner, the group, and the world. Use `chmod` command with the numerical value to assign the permission:

```
chmod 600 filename    - rw- --- ---    User can r&w (4+2)
chmod 700 filename    - rwx --- ---    User can r&w&x (4+2+1)
chmod 644 filename    - rw- r-- r--    User r&w (4+2), group r (4),
                                       others r (4)
Chmod 755 filename    - rwx r-x r-x    User r&w&x (4+2+1), group r&x
                                       (4+1), others r&x (4+1)
```

Permissions

Another way:

Specifically change permissions with letters:

```
u = user    g = group     a = others
r = read    w = write     x = execute

chmod u+rx filename      Give user r&x

chmod u+x filename       Give user x

chmod a+rw filename      Give others r&w

chmod a-x filename       Take x away from others
```