

An example of the output produced by 'ls -l' is shown below.

```
drwx----- 2 richard staff 2048 Jan 2 1997 private
drwxrws--- 2 richard staff 2048 Jan 2 1997 admin
-rw-rw---- 2 richard staff 12040 Aug 20 1996 admin/userinfo
drwxr-xr-x 3 richard user 2048 May 13 09:27 public
```

Field 1: a set of ten permission flags.

Field 2: link count

Field 3: owner of the file

Field 4: associated group for the file

Field 5: size in bytes

Field 6-8: date of last modification (format varies, but always 3 fields)

Field 9: name of file (possibly with path, depending on how ls was called) The permission flags are read as follows (left to right)

position	Meaning
1	directory flag, 'd' if a directory, '-' if a normal file, something else occasionally may appear here for special devices. 'l' indicated a link
2,3,4	read, write, execute permission for User (Owner) of file
5,6,7	read, write, execute permission for Group
8,9,10	read, write, execute permission for Other (Other meaning NOT in user or group)
value	Meaning
-	in any position means that flag is not set
r	file is readable by owner, group or other. If set on a directory, you can list the directory contents.
w	file is writeable. On a directory, write access means you can add or delete files
x	file is executable (only for programs and shell scripts - not useful for data files). Execute permission on a directory means you can traverse the directory.
s	in the place where 'x' would normally go is called the set-UID or set-groupID flag.

On an executable program with set-UID or set-groupID, that program runs with the effective permissions of its owner or group.

For a directory, the set-groupID flag means that all files created inside that directory will inherit the group of the directory. Without this flag, a file takes on the primary group of the user creating the file. This property is important to people trying to maintain a directory as group accessible. The subdirectories also inherit the set-groupID property.

Linux Read mode permissions

- Read access on a file allows you to view file
- Read access on a directory allows you to view directory contents with ls command

Write mode permissions

- Write access on a file allows you to write to file
- Write access on a directory allows you to remove or add new files

Execute mode permissions

- Execute access on a file allows to run program or script

- Execute access on a directory allows you access file in the directory