

Electronic Computer Center  
Al-Nahrain University  
Linux Module  
A. Altaher  
Lecture 9



- Command line (Terminal)



# Permission levels

“r” means “read only” permission

“w” means “write” permission

“x” means “execute” permission

In case of directory, “x” grants permission to list directory contents



# File and Directory Permissions

<u>Permission</u>	<u>File</u>	<u>Directory</u>
<b>read</b>	User can look at the contents of the file	User can list the files in the directory
<b>write</b>	User can modify the contents of the file	User can create new files and remove existing files in the directory
<b>execute</b>	User can use the filename as a UNIX command	User can change into the directory, but cannot list the files unless (s)he has read permission. User can read files if (s)he has read permission on them.



# File and Directory Permissions

```
wiehe@zhome:~/linux_tutorial
zhome:~/linux_tutorial$ ls -l
total 28
-rw-rw-r--  1 wiehe wiehe  169 Aug 30 12:20 aa_sequence.pl
-rw-rw-r--  1 wiehe wiehe   92 Aug 30 11:54 ACTG.pl
-rw-rw-r--  1 wiehe wiehe   21 Aug 30 12:23 data.dat
-rw-rw-r--  1 wiehe wiehe   42 Aug 30 12:22 hello_world.pl
-rw-rw-r--  1 wiehe wiehe   24 Aug 30 12:23 input.txt
-rw-rw-r--  1 wiehe wiehe   50 Aug 30 13:13 lines.txt
drwxrwxr-x  2 wiehe wiehe 4096 Aug 30 13:19 new_directory
zhome:~/linux_tutorial$
```



# File and Directory Permissions

```
wiehe@zhome:~/linux_tutorial
zhome:~/linux_tutorial$ ls -l
total 28
-rw-rw-r-- 1 wiehe wiehe 169 Aug 30 12:20 aa_sequence.pl
-rw-rw-r-- 1 wiehe wiehe 92 Aug 30 11:54 ACTG.pl
-rw-rw-r-- 1 wiehe wiehe 21 Aug 30 12:23 data.dat
-rw-rw-r-- 1 wiehe wiehe 42 Aug 30 12:22 hello_world.pl
-rw-rw-r-- 1 wiehe wiehe 24 Aug 30 12:23 input.txt
-rw-rw-r-- 1 wiehe wiehe 50 Aug 30 13:13 lines.txt
drwxrwxr-x 2 wiehe wiehe 4096 Aug 30 13:19 new_directory
zhome:~/linux_tutorial$
```

**“The World”**

**Group**

**User (you)**



# File and Directory Permissions

---	0
--x	1
-w-	2
-wx	3
r--	4
r-x	5
rw-	6
rwx	7



# File and Directory Permissions

**chmod (change [file or directory] mode)**

\$ chmod options files

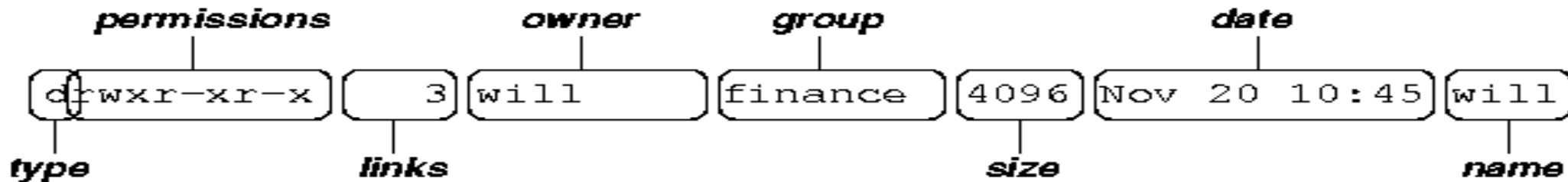
If you own the file, you can change it's permissions with "chmod"

Syntax: chmod [**u**ser/**g**roup/**o**thers/**a**ll]+[permission] [file(s)]

For example the command:

```
$ chmod 600 private.txt
```

```
$ chmod ug=rw,o-rw,a-x *.txt
```





# File and Directory Permissions

Below we grant execute permission to all:

```
wiehe@zhome:~/linux_tutorial
zhome:~/linux_tutorial$ ls -l hello_world.pl
-rw-rw-r-- 1 wiehe wiehe 42 Aug 30 12:22 hello_world.pl
zhome:~/linux_tutorial$ chmod a+x hello_world.pl
zhome:~/linux_tutorial$ ls -l hello_world.pl
-rwxrwxr-x 1 wiehe wiehe 42 Aug 30 12:22 hello_world.pl
zhome:~/linux_tutorial$
```



## Youtube

[https://www.youtube.com/watch?v=9t\\_gJWC32zk](https://www.youtube.com/watch?v=9t_gJWC32zk)

## Linux Handout & Tutorial

<http://www.guru99.com/unix-linux-tutorial.html>

*William Knottenbelt Imperial college London 2001*

<http://www.doc.ic.ac.uk/~wjk/UnixIntro/index.html>

## WORLD OF ASIC 2014

<http://www.asic-world.com/scripting/unix3.html>



<http://www.ee.surrey.ac.uk/Teaching/Unix/>

<http://www.ugu.com/sui/ugu/show?help.beginners>

<http://en.wikipedia.org/wiki/Unix>

