

Linux Introduction II

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--help

- **--help** = display the usage of a command
 - ex. **cp --help**

```
[u101061123@ws37 ~]$ cp --help
Usage: cp [OPTION]... [-T] SOURCE DEST
       or: cp [OPTION]... SOURCE... DIRECTORY
       or: cp [OPTION]... -t DIRECTORY SOURCE...
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
-a, --archive                same as -dR --preserve=all
  --backup[=CONTROL]        make a backup of each existing destination file
-b                           like --backup but does not accept an argument
  --copy-contents            copy contents of special files when recursive
-d                           same as --no-dereference --preserve=link
-f, --force                  if an existing destination file cannot be
                             opened, remove it and try again
-i, --interactive            prompt before overwrite
-H                           follow command-line symbolic links
-l, --link                   link files instead of copying
-L, --dereference            always follow symbolic links
-P, --no-dereference         never follow symbolic links
-p                           same as --preserve=mode,ownership,timestamps
  --preserve[=ATTR_LIST]    preserve the specified attributes (default:
                             mode,ownership,timestamps), if possible
                             additional attributes: context, links,
                             xattr, all
```

*

- * = all
 - ex. `rm *` remove all files in current directory
 - ex. `cp * ../lab01` copy all files in current directory to lab01
 - ex. `ls *.c` list all .c files in current directory

ls

- **ls [-al]** = show details of all files and directories
 - -a = all (do not ignore entries starting with “.”)
 - -l = list the authority and property in a long listing

format

- **chmod**
- **chown**
- **chgrp**

```
[root@linux ~]# ls -al
total 248
drwxr-x---  9  root  root  4096  Jul 11 14:58  .
drwxr-xr-x 24  root  root  4096  Jul  9 17:25  ..
-rw-----  1  root  root  1491  Jun 25 08:53  anaconda-ks.cfg
-rw-----  1  root  root 13823  Jul 10 23:12  .bash_history
-rw-r--r--  1  root  root    24  Dec  4 2004  .bash_logout
-rw-r--r--  1  root  root   191  Dec  4 2004  .bash_profile
-rw-r--r--  1  root  root   395  Jul  4 11:45  .bashrc
-rw-r--r--  1  root  root   100  Dec  4 2004  .cshrc
drwx-----  3  root  root  4096  Jun 25 08:35  .ssh
-rw-r--r--  1  root  root 68495  Jun 25 08:53  install.log
-rw-r--r--  1  root  root  5976  Jun 25 08:53  install.log.syslog
```

[1]	[2]	[3]	[4]	[5]	[6]	[7]
[屬性]	[連結]	[擁有者]	[群組]	[檔案容量]	[修改日期]	[檔名]

Linux File Property

- **-rwxr-xr--** : File **owner** **group** **others**
- **drwxr-----** : Directory **owner** **group** **others**



TYPE

- d: directory
- -: regular file
- l: link
- b: block device file
- c: character device file

PERMISSION

- r: read
- w: write
- x: execute
- -: no permission

chmod

- **chmod** = change mode
- r: read \rightarrow 4
- w: write \rightarrow 2
- x: execute \rightarrow 1
 - ex. **chmod 750 filename**
 - owner rwx: $r+w+x = 4+2+1 = 7$
 - group r-x: $r+x = 4+1 = 5$
 - others ---: 0
- Try **chmod 700 c_program**

Tips

- **'Tab'** = complete filename
 - ex. `cd c`
press **'Tab'**
`cd c_program`
- **'↑'** = show preceding command
- **clear** = clear the terminal screen

Reference

- 鳥哥的linux私房菜
<http://linux.vbird.org/>