

07:37 PM

rick@alien

```
...  
tttt33# OS: 4.4.0-43-Microsoft Ubuntu 16.04.  
ttt33QL CPU: Intel(R) Core(TM) i7-6700HQ CPU  
ttt33F HDD free / size: 333G / 446G  
tt33@. Memory used / size: 4650MB / 8056MB  
z33QF Uptime: 2d 6h 21m  
i3P* Resolution: 1920 x 1080  
..g. Motherboard: 0GH72M  
ztF Shell: GNU bash, version 4.3.48(1)-r  
t3 DE: 1  
3F WM: VcXsrv  
Z` WM Theme: C:\WINDOWS\resources\Theme  
Font: Consolas
```

# Linux File Handling Commands

In Linux, efficient file handling is essential for effective management of files and directories. This guide provides an overview of commonly used file handling commands.

# List Files and Directories

ls

List all files and directories in the current location.

```
ls [options] [directory]
```

Example:

```
$ ls Desktop Documents Downloads Music Pictures Videos
```

# Change Directory

cd

Navigate to a different directory.

```
cd [directory]
```

Example:

```
$ cd Documents
```

# Print Working Directory

`pwd`

Display the current working directory.

`pwd`

Example:

`$ pwd /home/user/Documents`

# Create Directory

mkdir

Create a new directory.

```
mkdir [directory_name]
```

Example:

```
$ mkdir NewFolder
```

# Create Empty File

touch

Create a new empty file.

```
touch [file_name]
```

Example:

```
$ touch newfile.txt
```

# Copy Files/Directories

cp

Make a copy of a file or directory.

```
cp [options] source destination
```

Example:

```
$ cp file1.txt file2.txt
```

# Move/Rename Files/Directories

mv

Move or rename a file or directory.

```
mv [options] source destination
```

Example:

```
$ mv file1.txt new_location/
```

```
$ mv oldfile.txt newname.txt
```



# Remove Files/Directories

rm

Delete files or directories.

```
rm [options] file/directory
```

Example:

```
$ rm file.txt
```

```
$ rm -r directory/
```

# View File Contents

cat

Display the contents of a file.

```
cat [file_name]
```

Example:

```
$ cat myfile.txt
```

# View the Beginning of a File

head

Show the first few lines of a file.

```
head [options] [file_name]
```

Example:

```
$ head -n 5 myfile.txt
```

# View the End of a File

tail

Display the last few lines of a file.

```
tail [options] [file_name]
```

Example:

```
$ tail -n 10 myfile.txt
```

# Search for Text in Files

grep

Find specific text within files.

```
grep [options] pattern [file_name]
```

Example:

```
$ grep "search_term" myfile.txt
```

# Change File Permissions

chmod

Modify file permissions.

```
chmod [options] permissions file/directory
```

Example:

```
$ chmod 644 myfile.txt
```

# Change File Ownership

chown

Alter the ownership of a file or directory.

```
chown [options] owner:group file/directory
```

Example:

```
$ chown user:group myfile.txt
```

# Search for Files and Directories

find

Locate files and directories based on specified criteria.

```
find [directory] [options] -name [filename]
```

Example:

```
$ find /path/to/search -name "*.txt"
```



SYSTEM	FILE PERMISSION RELATED
uname -a =>Display linux system information uname -r =>Display kernel release information uptime =>Show how long the system has been running + load hostname =>Show system host name hostname -i =>Display the IP address of the host last reboot =>Show system reboot history date =>Show the current date and time cal =>Show this month calendar w =>Display who is online whoami =>Who you are logged in as finger user =>Display information about user	chmod octal file-name =>Change the permissions of file to octal Example chmod 777 /data/test.c =>Set rwx permission for owner,group,world chmod 755 /data/test.c =>Set rwx permission for owner,r,x for group and world chown owner-user file =>Change owner of the file chown owner-user-owner-group file-name =>Change owner and group owner of the file chown owner-user-owner-group directory =>Change owner and group owner of the directory
HARDWARE	NETWORK
dmesg =>Detected hardware and boot messages cat /proc/cpuinfo =>CPU model cat /proc/meminfo =>Hardware memory cat /proc/interrupts =>Lists the number of interrupts per CPU per I/O device lshw =>Displays information on hardware configuration of the system lsblk =>Displays block device related information in Linux free -m =>Used and free memory (-m for MB) lspci -tv =>Show PCI devices lsusb -tv =>Show USB devices dmidecode =>Show hardware info from the BIOS hdparm -i /dev/sda =>Show info about disk sda hdparm -tT /dev/sda =>Do a read speed test on disk sda badblocks -s /dev/sda =>Test for unreadable blocks on disk sda	ip addr show =>Display all network interfaces and ip address (a iproute2 command,powerful than ifconfig) ip address add 192.168.0.1 dev eth0 =>Set ip address ethtool eth0 =>Linux tool to show ethernet status mii-tool eth0 =>Linux tool to show ethernet status ping host =>Send echo request to test connection whois domain =>Get who is information for domain dig domain =>Get DNS information for domain dig -x host =>Reverse lookup host host google.com =>Lookup DNS ip address for the name hostname -i =>Lookup local ip address wget file =>Download file netstat -tulp =>Listing all active listening ports
USERS	COMPRESSION / ARCHIVES
id =>Show the active user id with login and group last =>Show last logins on the system who =>Show who is logged on the system groupadd admin =>Add group "admin" useradd -c "Sam Tomsh" -s /bin/bash -m sam #Create user "sam" userdel sam =>Delete user sam adduser sam =>Add user "sam" usermod =>Modify user information	tar cf home.tar home =>Create tar named home.tar containing home/ tar xf file.tar =>Extract the files from file.tar tar czf file.tar.gz files =>Create a tar with gzip compression gzip file =>Compress file and renames it to file.gz
FILE COMMANDS	INSTALL PACKAGE
ls -al =>Display all information about files/ directories pwd =>Show the path of current directory mkdir directory-name =>Create a directory rm file-name =>Delete file rm -r directory-name =>Delete directory recursively rm -f file-name =>Forcefully remove file rm -rf directory-name =>Forcefully remove directory recursively cp file1 file2 =>Copy file1 to file2 cp -r dir1 dir2 =>Copy dir1 to dir2, create dir2 if it doesn't exist mv file1 file2 =>Rename source to dest / move source to directory ln -s /path/to/file-name link-name #Create symbolic link to file-name touch file =>Create or update file cat > file =>Place standard input into file more file =>Output contents of file head file =>Output first 10 lines of file tail file =>Output last 10 lines of file tail -f file =>Output contents of file as it grows starting with the last 10 lines gpg -c file =>Encrypt file gpg file.gpg =>Decrypt file wc =>print the number of bytes, words, and lines in files xargs =>Execute command lines from standard input	rpm -i pkgname.rpm =>Install rpm based package rpm -e pkgname =>Remove package
PROCESS RELATED	INSTALL FROM SOURCE
ps =>Display your currently active processes ps aux   grep 'telnet' =>Find all process id related to telnet process mpmap =>Memory map of process top =>Display all running processes kill pid =>Kill process with mentioned pid id killall proc =>Kill all processes named proc pkill process-name =>Send signal to a process with its name bg =>Resumes suspended jobs without bringing them to foreground fg =>Brings the most recent job to foreground fg n =>Brings job n to the foreground	./configure make make install
FILE PERMISSION RELATED	SEARCH
chmod octal file-name =>Change the permissions of file to octal Example chmod 777 /data/test.c =>Set rwx permission for owner,group,world chmod 755 /data/test.c =>Set rwx permission for owner,r,x for group and world chown owner-user file =>Change owner of the file chown owner-user-owner-group file-name =>Change owner and group owner of the file chown owner-user-owner-group directory =>Change owner and group owner of the directory	grep pattern files =>Search for pattern in files grep -r pattern dir =>Search recursively for pattern in dir locate file =>Find all instances of file find /home/tom -name "index*" =>Find files names that start with "index" find /home -size +10000k =>Find files larger than 10000k in /home
PROCESS RELATED	LOGIN (SSH AND TELNET)
ps =>Display your currently active processes ps aux   grep 'telnet' =>Find all process id related to telnet process mpmap =>Memory map of process top =>Display all running processes kill pid =>Kill process with mentioned pid id killall proc =>Kill all processes named proc pkill process-name =>Send signal to a process with its name bg =>Resumes suspended jobs without bringing them to foreground fg =>Brings the most recent job to foreground fg n =>Brings job n to the foreground	ssh user@host =>Connect to host as user ssh -p port user@host =>Connect to host using specific port telnet host =>Connect to the system using telnet port
FILE PERMISSION RELATED	FILE TRANSFER
chmod octal file-name =>Change the permissions of file to octal Example chmod 777 /data/test.c =>Set rwx permission for owner,group,world chmod 755 /data/test.c =>Set rwx permission for owner,r,x for group and world chown owner-user file =>Change owner of the file chown owner-user-owner-group file-name =>Change owner and group owner of the file chown owner-user-owner-group directory =>Change owner and group owner of the directory	scp scp file.txt server2:/tmp =>Secure copy file.txt to remote host /tmp folder rsync rsync -a /home/apps /backup/ =>Synchronize source to destination
FILE PERMISSION RELATED	DISK USAGE
chmod octal file-name =>Change the permissions of file to octal Example chmod 777 /data/test.c =>Set rwx permission for owner,group,world chmod 755 /data/test.c =>Set rwx permission for owner,r,x for group and world chown owner-user file =>Change owner of the file chown owner-user-owner-group file-name =>Change owner and group owner of the file chown owner-user-owner-group directory =>Change owner and group owner of the directory	df -h =>Show free space on mounted filesystems df -i =>Show free inodes on mounted filesystems fdisk -l =>Show disks partitions sizes and types du -ah =>Display disk usage in human readable form du -sh =>Display total disk usage on the current directory findmnt =>Displays target mount point for all filesystem mount device-path mount-point =>Mount a device
FILE PERMISSION RELATED	DIRECTORY TRAVERSE
chmod octal file-name =>Change the permissions of file to octal Example chmod 777 /data/test.c =>Set rwx permission for owner,group,world chmod 755 /data/test.c =>Set rwx permission for owner,r,x for group and world chown owner-user file =>Change owner of the file chown owner-user-owner-group file-name =>Change owner and group owner of the file chown owner-user-owner-group directory =>Change owner and group owner of the directory	cd . =>To go up one level of the directory tree cd =>Go to \$HOME directory cd /test =>Change to /test directory

# Conclusion

These Linux file handling commands provide a solid foundation for efficiently managing files and directories. With practice, you can customize and combine them to suit your unique requirements. Just remember to exercise caution when using commands like 'rm' to prevent accidental deletions.

