



The topics:

- The Linux interface.
- What is the Terminal
- What is BASH?
- Starting a Terminal
- Checking your login session.
- Checking directories and permissions.
- Exiting the shell

Under Linux there are GUIs (graphical user interfaces).

- where you can point and click and drag, and hopefully get work done without first reading lots of documentation.

The traditional Unix environment is a CLI (command line interface)

- where you type commands to tell the computer what to do. That is faster and more powerful, but requires finding out what the commands are."

What is the Terminal

There are many varieties of Linux, but almost all of them use similar commands that can be entered from a command-line interface terminal.

The Terminal = command line interface = shell that gives command to the OS.

A "shell" is a program which interprets commands so that the operating system can understand them.

the use of the shell can be quicker than a graphical method.

The Ubuntu 's **default shell** is bash.

What is BASH?

- **BASH = Bourne Again Shell**
- BASH is a shell written as a free replacement to the standard Bourne Shell which is written by Steve Bourne for UNIX systems.
- It has all of the features of the original Bourne shell, plus additions that make it easier to program with and use from the command line.
- Since it is Free Software, it has been adopted as the default shell on most Linux systems.

Most important benefits of the Command-Line/Terminal

- Faster.
- The terminal is almost universal across Linux distributions and is definitely universal across different flavors of Ubuntu

Starting a Terminal

- Ubuntu logo -> More Apps -> 'See More Results'(in upper left) -> Terminal
- Ubuntu logo -> More Apps -> all Applications(in upper right) -> Accessories -> Terminal
- Ubuntu logo -> type Terminal in Search
- Keyboard Shortcut: Ctl + Alt + T



Shell Prompt Terms

- Terminal window :
- The terminal window is the window that contains the shell prompt, command line, and output from the shell.
- Shell prompt:
- The shell prompt is the marker on the screen that shows where the command line should be placed. The following is an example of a shell prompt:
- **UserName@ComputerName:~\$**
- **@** to separate UserName from ComputerName.
- **:** colon to separate the computer name from the directory.
- **~** The tilde symbol stands for your home directory.
- **\$** to terminate the prompt.
- command line:
- The command line is where options to a command are placed. The following is an example of a command line: `command -options <filename>`
- Shell:
- The shell is the program that interprets commands so that the operating system can understand them.

The prompt ---→ the command you type ---→ Enter.

The lines that follow show the output that results from the command

— **NOTE:**

command may have options: **command –options**

Checking your login session:

\$ id

Display information about your identity

- Login Identity includes:

user name, group name, user ID, and group ID.

\$ who

Displays who is on the system.

- Linux keeps track of login session:

when you logged in, how long you have been idle, and where you logged in from.

\$ who -umH

-u	List only those users who are currently logged in. The name is the user's login name. The time is the time that the user logged in. The idle column contains the number of hours and minutes since activity last occurred on that particular line. A dot (.) indicates that the terminal has seen activity in the last minute and is therefore "current". If more than twenty-four hours have elapsed or the line has not been used since boot time, the entry is marked old. This field is useful when trying to determine whether a person is working at the terminal or not. The pid is the process-ID of the user's shell. The comment is the comment field associated with this line as found in /sbin/inittab. This can contain information about where the terminal is located, the telephone number of the dataset, terminal if hard-wired, and so forth
-m	Output only information about the current terminal.
-H	Output column headings above the regular output.

File & Directory Commands:

\$ pwd

Short for print working directory the pwd command displays the name of the current working directory.

\$ echo \$HOME

Echo's to the screen what you type after echo. Echo is useful for producing diagnostics in command files, for sending known data into a pipe, and for displaying the contents of environment variables.

\$ echo \$HOME —————> To find out the name of your home directory

When you open a terminal you will be in your home directory

\$ cd

typing just cd alone will move you into the home directory

\$ cd /etc

—To change the current directory to the directory that you choose (ex. /etc)

\$ ls

Lists the contents of a directory.

\$ ls -m

—To list files across the page, separated by commas.

\$ ls ~

—List the contents of your home directory by adding a tilde after the ls command.

\$ ls /

—List the contents of your root directory.

\$ ls -aR

To list the contents of subdirectories

-a	shows you all files, even files that are hidden (these files begin with a dot.)
-l	Shows you huge amounts of information (permissions, owners, size, and when last modified.)
-m	Stream output format; files are listed across the page, separated by commas.
-R	Includes the contents of subdirectories.

To list the contents of the current directory:

permissions

User
The user that owns the file, or directory

Size
The size in bytes

Date
The date of last modification

```
$ ls -al /home/chris
total 158
drwxrwxrwx  3  chris  sales  1024  May 12 13:55  .
drwxr-xr-x  3  root   root   1024  May 10 01:49  ..
-rw-----  1  chris  sales  2204  May 18 21:30  .bash_history
-rw-r--r--  1  chris  sales   24   May 10 01:50  .bash_logout
-rw-r--r--  1  chris  sales  230   May 10 01:50  .bash_profile
```

Directories
This field specifies the number of links or directories inside this directory.

Group
The group assigned to the file or directory.

Directory or File
The name of the file or directory.

Close the Terminal :

- Close button
- Enter exit command.
- Ctrl+D

References :

<http://www.computerhope.com/unix.htm#04>

<https://help.ubuntu.com/community/UsingTheTerminal>

<https://help.ubuntu.com/community/UsingTheTerminal>

<http://publib.boulder.ibm.com/infocenter/aix/v7r1/index.jsp?to pic=%2Fcom.ibm.aix.cmds%2Fdoc%2Faixcmds6%2Fwho.htm>