C h a p t e r

2

Learning Bash Commands

In this chapter, you will learn the following to World Class standards:

1. The Application of Linux in the Professional World
2. Common Bash Commands
3. Where to Find Out More about Bash Commands

Linux in the Professional World

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Why should a computer Specialist learn the Unix and Linux commands? Most likely in your career, you will have to work on a Unix or Linux client or server. Linux and Unix are fairly prevalent among large corporations.

65% of all web servers
85% of all supercomputers
Amazon
Burlington Coat Factory
Cisco
Conoco
Department of Energy
DishNetwork
Disney
Dreamworks
E*Trade
Garmin
Google
IBM
Kaiser Aluminum

Merrill Lynch
National Security Agency
Panasonic
Pixar
Reuters
Royal Dutch/ Shell
TiVO
Tommy Hilfiger
Toyota Motor Sales
US Department of Defense
US Federal Courts
US Postal System
Yahoo

Figure 2.1 – Companies that Use Linux

Bash Commands

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This chapter will familiarize you with common bash commands to use in Linux. The first command we will look at is the Print Working Directory command: **pwd**. This command allows you to see the path of the directory in which you are currently working.

pwd
EXAMPLE:
```
$ Pwd
/usr/local/bin
```

Another directory-related command is the Change Directory command: **cd**. We can use it to move from the current directory to another specific directory.

cd
EXAMPLES:
```
$ cd /var/spool/mail
$ pwd
/var/spool/mail$
/var/spool/mail$ cd / home
$
```

Type **cd** and then a space, and then the directory you want to move. To return the home directory, type **cd**, hit space, type a slash, and then type the word home.

The Change Directory command has another use: when typing a double dot after the cd command, you will move up one level towards the root directory. Change Directory with a single dot (cd.) refers to your current directory

cd..
EXAMPLES:
```
$ cd /var/spool/mail
$ pwd
/var/spool/mail$
/var/spool/mail$ cd / home
$
```

The List bash command allows you to see the objects within your current directory. Type **ls** to view the objects

ls
EXAMPLE:
```
/usr$ ls
NX    bin   etc   include
lib64  man   share X11R6
doc  games lib  local
sbin src
```

The Directory bash command does the same thing as the List bash command. Type **dir** to view the objects.

dir
EXAMPLE:
```
/usr$ dir
NX    bin   etc   include
lib64  man   share X11R6
doc  games lib  local
sbin src
```

The Calendar command will display the month and year and then the entire calendar and highlight the current day. Type **cal** to view the calendar.

```
$ cal
      May 2010
S  M  T  W  T  F  S
                  1
2  3  4  5  6  7  8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
22 24 25 26 27 28 29
30 31
```

The Date command shows the day of the week, the day of the month, the time and the year. Type **date** to view to current date information. Type **date-u** to see the date and time of Greenwich Mean Time.

date
EXAMPLE:
```
$ date
Wed May 5 08:38:01 EDT 2010
$ date-u
Wed May 5 12:38:01 UDT 2010
```

To clear the screen of text, type **clear**. The Clear command will erase the display.

clear
EXAMPLE:
```
/usr$ ls
NX    bin  etc    include
lib64   man  share
X11R6 doc  games lib
local   sbin src
$ clear

$
```

The Concatenate command will allow you to start and compose a text file. Type **cat > the_filename** you wish to call your text file. Hit Enter to begin typing in the file. To close the file, hold control and hit D.

cat
EXAMPLE:
```
$ cat > May5_memo
Meet with client at 2 pm
$ cat > May5_memo2
Meet with second client at
4 pm
```

The Concatenate command can also be used to combine two text files into one. Type **cat [file1] [file2] > new_filename** to put the two files together.

cat
EXAMPLE:
```
$ cat May5_memo May5_memo2 >
All_May5_memos
$ more All_May5_memos
Meet with client at 2 pm
Meet with second client at 4 pm
$
```

The More command allows you to read one screen at a time. Type **more** and then the file you want to read.

<div style="text-align: center">

```
$ more All_May5_memos
Meet with client at 2 pm
Meet with second client at 4 pm
$
```

</div>

more EXAMPLE:

The Less command will show you a file but the cursor will appear at the end of the file. Use it just as you would use the More command. Hit **q** to exit the file.

less EXAMPLE:

```
$ less All_May5_memos
Meet with client at 2 pm
Meet with second client at 4 pm
```

Here's how to make a new directory using the Make Directory command. Type **mkdir** and then the name of the directory you wish to create. In the example, we use the Change Directory command to go to Home before creating the new Memos directory. Then we use the list command to see the directory we just created.

mkdir EXAMPLE:

```
$ cd / home
$ mkdir memos
$ ls
memos
$
```

To make a copy of a file, we can utilize the Copy command. Type **cp** then a space, the name of the file you are copying, another space, and finally the path to the directory where you want the new file to exist. In the example, we used the Change Directory command to move to where we copied the files and then the List command to see the new files.

cp EXAMPLE:

```
$ ls
May5_memo  May5_memo2  memos
$ cp May5_memo /memos
$ cp May5_memo2 /memos
$ cd memos
/memos
$ ls
May5_memo  May5_memo2
/memos
$
```

The Move command works much like the Copy command, except a copy of the file will not remain in the original directory. Type **mv** then a space, the name of the file you want to move, another space, and finally the path to the directory where you want to move the file. In the example, we used the Change Directory command to switch to where we moved the files and then the List command to see the new files.

```
            $ ls
            May5_memo   May5_memo2   memos
            $ mv May5_memo /memos
            $ mv May5_memo2 /memos
      mv    $ cd memos
EXAMPLE:    /memos
            $ ls
            May5_memo   May5_memo2
            /memos
            $
```

We can get rid of files using the Remove command. Type **rm** and then the file you want to remove. You will be prompted to approve the action; type **y** to say yes.

```
            $ ls
            May5_memo   May5_memo2   memos
            $ rm May5_memo
      rm    rm: Remove regular file 'May5_memo"? y
EXAMPLE:    $ rm May5_memo2
            rm: Remove regular file 'May5_memo2"? y
            $ ls
            Memo
            $
```

The last two commands we will cover are useful for finding out more about bash commands. The Help command will display an explanation of how the designated command works. Type the command you need help with, then a space, two dashes, and then **help**.

```
            $ mv –help
     help
EXAMPLE:    {gives an explanation of the move
            command}
```

The Manual command opens up a comprehensive document explaining the ins and outs of the designated bash command. Type **man** and then the bash command you want to learn about. Type **q** to exit.

```
            $ man cal

     man    {opens a complete document describing
EXAMPLE:    the bash calendar. Type q to close the
            manual.}
```

More About Bash Commands

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There are many, many more bash commands that we can use in Linux. For more information on the different bash commands, what they do, and how to use them, you will be able to find many resources just by doing a simple web search. Try http://ss64.com/bash/ or http://www.gnu.org/software/bash/manual/bashref.html for more help.

* World Class CAD Challenge 44-2 * - Write a Script that displays two message boxes, the first will contain the script name, copyright date and author. The second message will display information from the computer.

Continue this drill four times using some other messages, each time completing the VBScript in less than 30 minutes to maintain your World Class ranking.