

System Administration and maintenance

Man command

man is the system's manual pager.

To Display the manual page for the item (program) ls :

```
$ man ls
```

output:

it will display man page of ls command

options:-

-f, --whatis :- Equivalent to whatis. Display a short description from the manual page.

-k, --apropos :- Search the short manual page descriptions for keywords and display any matches.

cal : The Calendar

(Ref. Sumitabahdas page no. 49 subsection 3.1)

Cal [[month]year]

cal can be used without argument

```
$ cal
```

```
$ cal 03 2006
```

```
$ cal 2003 | more
```

or use less instead of more

You can use **[Ctrl-s]** to make pause. You can now scroll forward by pressing the spacebar, or move back using **b**

```
$ date
```

displaying the system date

Printf Command

(Ref. Sumitabahdas page no. 49)

Printf can do everything that **echo** does, some of its format strings can convert data from one form to another. Here's how the number 255 is interpreted in octal (base 8) and hexadecimal (base 16).

\$ printf "the value of 255 is o% in octal and %x in hexadecimal \n" 255 255

bc: The Calculator

(Ref. Sumitabahasdas page no. 49 subsection 3.5)

\$ bc

12+5

17

value display after computation

[Ctrl-d] // used for end of character

Multiple calculation in same line, using ; as delimiter.

\$ bc

12*12 ; 2^32

^indicates to the power of

144

4294967296

Maximum memory possible on a 32-bit machine

Sending mail non interactively :-

\$ mailx -s "New System" charlie < message.txt

\$ mailx -s "new System" -c "jpm, sumit" charlie < message.txt

Unix is considered to be a versatile system because mail will be sent without user intervention.

\$ mailx

to check all mails

? q

Quitting mailx with q

mailx internal Commands :- a mail can also be accessed by simply entering the number itself:

3

Replying to mail

? r

sender's address automatically inserted

Type message

[Ctrl-d]

Saving messages : all message saved by default. **w** command save on or more message msg in separated files rather than the default inbox.

w filename *append current msg to file*
w 1 2 3 filename *append first three msg to file*

Delete Messages: use **d** command to delete msg. The mail actually gets deleted only when quitting **mailx**.

Internal command used by **mailx:-** (Ref. sumitabahas page no. 55 **Table 3.2**)

uname command

(Ref. sumitabahas page no. 58 **Subsection 3.11**)

uname :KNOWING YOUR MACHINE'S CHARACTERISTICS

It simply display the name of operating system:-

\$ uname *// Linux shows Linux*
Output: Sun Solaris

The Current Release (**-r**) option to find out the version of your Operating System

\$ uname -r
Output : 5.8

The Machine Name (**-n**) option tells you the hostname. Hostname is a component of your machine's domain name

\$ uname -n
Output: mercury *The first word of the domain name*

tty command

(Ref. sumitabahas page no. 59 **Subsection 3.12**)

tty : KNOWING YOUR TERMINAL :- tells you the filename of the terminal you are using.

\$ tty
Output: /dev/pts/10 *(here 10 is filename in which you are working)*

stty command

stty: DISPLAY AND SETTING TERMINAL CHARACTERISTIC

stty helps to display and changes setting. (**-a**) option display the current settings

\$ stty -a

The output shows :-

The baud rate (the speed of terminal)

Intr = ^c [Ctrl-c] interruption a program

Erase character is [Ctrl-h]

Kill character is [Ctrl-u]

Eof character is [Ctrl-d]

Changing the settings

- *Whether backspacing should Erase Character (echo):-* This is decided by keyword echo

\$ stty -echo *Backspacing now doesn't remove a character from sight*

- *Entering a Password through a Shell Script (echo):-*

\$ stty -echo *Turns off keyboard input*

- *Changing the interrupt key (intr) :-* stty also sets the functions for some of the keys like use [ctrl-c] as interrupt key instead of [delete]

\$ stty intr ^c *^and c*

Here intr is keyword

Q1. How do you determine the erase, kill and eof character on your systems?

Q2. What will you do to ensure that [ctrl-c] interrupts any program? Will it work the next time you log in?

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