put all ls options

10/8/08

-e -F -e.F -ef

· hostname - shows name of computer being used
· exit → command to log out of bash shell
· tty → shows terminal used for connection
· PS → kernal command shows processes kernal running
· who → other users logged into computer
· SSH → network protocol to allow secure login session to remote server
· uname → command shows kernal name
· man ls → online manual for ls
· cal → print calendar
· cat → concantenate + print 1 or more files
· ; → semicolon - multiple commands - 1 line
· echo $TERM → terminal type
· type → shows location of command if in path
· whereis → looks in normal UNIX places for binaries, source + man pages
ls -l → permission of 1 or more files
ls → contents of directory
file → shows type of file
CD → change working directory
echo → displays a line of text
· write → to chat w/ another user
· mail -f mbox → read messages saved in local mail box
· ~m# - forward message # when in /bin/mail
· in /bin/mail - after quit message go to mbox file in users home directory
· pwd → unix command to print curr wkg dir
· xxd → Hex dump of binary file
· ls -l (long listing) l (lower case L) in col 1 denotes symbolic link files
· ls -l /boot/v* long listing of v files in boot directory
· ls -id - shows inode of directory rather than inodes of contents
 · current directory } 2 hidden files
 · · Parent directory } in every unix directory
· ls -i - shows inode numbers
· in longlisting - d in first col denotes dir files
· tail or head - print first or last several lines
ls -l /etc/passwd → shows permission owner + size of passwd
ls -R - recursively descend to subdirectories
file - command that will help tell if text file
ls -a include hidden files
* ? [ ] · expansion character
echo ../[SB]* - all files in parent dir starting w S or B

show only hidden directories

file .*
echo .*

find $HOME -type f -name ".*"

date ; cal ; who ; who am i ; id ; clear
-$PATH
echo $SHELL → /bin/bash
uname → Linux
hostname → opus.cabrillo.edu
type - shows path

man -f + whatis are similar
finger wrigholi - time on + read mail
echo $Home - $LOGNAME $SHELL
$PS1 $PATH - - - -
· uname = Linux Kernal name

Directories where one can find commands
/bin /sbin /usr/bin /usr/sbin
unix command:
 input from command line echo clear
 interactive - KB bc
 operating sys finger
mail -f read saved messages
r 4q Read 4c
mail - no parameters - read unread mail
 x - will quit mail, messages revert to orig state
 p <message list> print messages
 In read mode ? will list arguments
 after screen full - read next # then use h option
ls -a all files - even hidden
 -i inode number
 -d directory rather than contents
 -l long listing
 -F type directory/, program *, link @ socket =
 -S sort by size
 -R Recursive (show sub directories)
more
less - similar to more - loads faster, backward scroll
head -2 file - first 2 lines
file - shows file type
type - shows path
File types in ls -l
 d directory - regular l symbolic link
 c spec char device files
 b special block device files

file * will show you each file type

/ root
/home - opus home
/home/cis90
/home/cis90/wrigholi

send mail
 mail wrigholi
 · ctrl D to end

Read
 r to reply
 ~m # to forward

chat - write - ctrl D to end
In Read ~v will get vi editor
 esc : q will get you out
mesg - enable or disable writes to your terminal

• Lowest Lev Linux oper sys - Kernal
• Putty - prog - Allows windows to log in & connect to Remote computer using SSH
SSH = Secure shell network protocol
• Linux - multi user
• Linus Torvalis - Linux
• Predominant oper sys - Windows
• Linux - free (GNU Linux)
• Photoshop - Proprietary
• Choices - public domain, open source free (GNU), Proprietary
• exit → command to log out of bash shell
• Firefox → is open source
• (Linux/Unix) servers bought by more people (higher revenue) than windows servers
• on ls command → executable commands (binary files or shell scripts) - they are shown in green. l option - x permission bits shown. F option - will have *
PATH → env var that shell uses to determine directories to search
Filename & inode pares = name & phone #
• absolute path starts with /
../guest/Poems is relative

cd .. → change to parent directory
cd with no arguments - wkg dir → home dir
/bin/mail - type of file is regular (not symlink, spec or dir)
Note - "-" in first col denotes reg

Green or bright red - you can run
apropos - look up info in whatis data base
is green & x bit set (rwx ck)
they are executable
file command shows apropos is bash script & cal is binary code

env - shows all env variables
set show shell variables
ps1 = '$PWD $'

PS1 = "[\u@\h \W]\$ "
user host working dir
Shell Life Parse, Prompt, Search, execute, nap repeat

Read long files more or less
parts of filename - name, inode, data

Shell handles env variables

• free software - can see and modify - but must make it avail
• open source - someone else has propriety rights

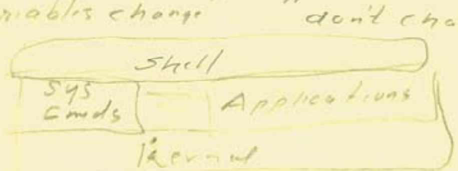
filename - kept in data block - not in inode table
chat: write
mail goes to mbox

unix orig developed - 1969 @ Bell Labs -
Only 2 Linux Dist supported by all 4 top server vendors?
Red Hat Enterprise & Novell SUSE
• Part of GNU/Linux that is both user interface & programming language → shell
• who command output - recognize remote terminal session user → under LINE column → pts terminal device or under COMMENT col either hostname or IPaddress

• Ctrl-Alt-Fx → Get to ttyx
• apropos ssh or man -k ssh - search whatis data base for SSH
• TERM = vt100 → change terminal type to vt100
• passwords stored in file → /etc/shadow
• bash program is a shell program (Born-again shell)
• Env variable for shell prompt → PS1
• with no redirection → console terminal device
console KB → stdin; stdout & stderr → console screen
• user accounts stored in file → /etc/passwd
• shell program → prompts for command, locates command & executes it.
• 3 standard IO streams loaded w/ prog: stdin, stdout, stderr
• 3 elements that make up a UNIX file
filename, inode & data
• file names are stored in directories in Unix filing systems
• initial directory is home directory when you log in

command	options	arguments	redirection
prog	how operates	objects worked	output shown
ls	-l	/blake	> file
hostname	-i	127.0.0.1	
opus.cabrillo.edu	-s	opus	

'variables change' "don't change"



echo * all files non hidden
echo *.* period
echo ../p*

Processing
echo - command line stdout
head -1 letter ck stdout
bc - all command line

ls for name
ls -i filename for inode
cat filename data
inode table is in data block

Unix files 3 elements
name
inode
data