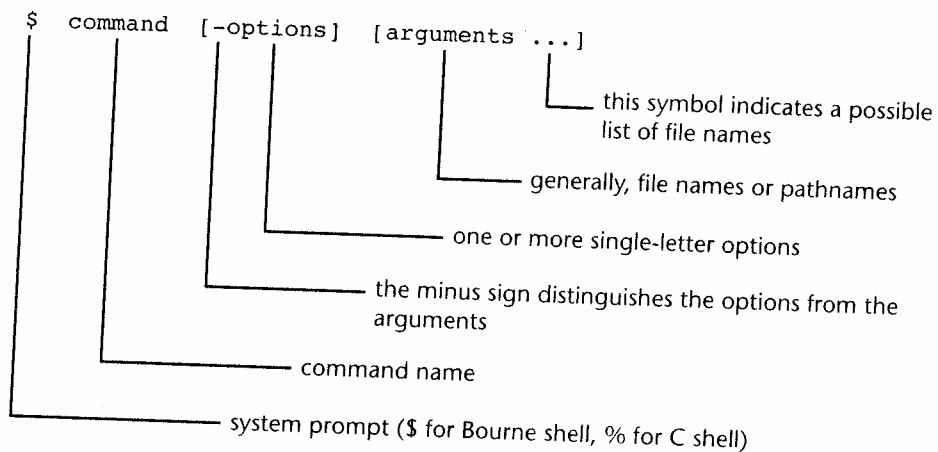


## Summary of UNIX Commands

### General

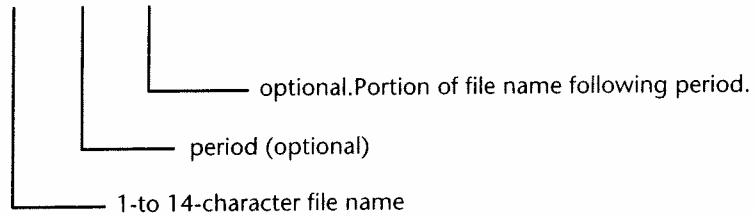
- Format of a command



- fields are separated by one or more spaces
- fields enclosed in brackets [...] are optional

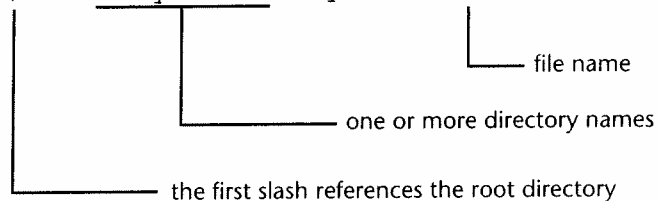
- Rules for defining a file name.

filename.extension



- suggested characters include A-Z, a-z, 0-9, comma (,), and underscore (\_)
- avoid using slash (/) characters in a file name
- don't start a file name with a minus sign (-)
- UNIX distinguishes between upper and lower case
- if you include a period in the file name, the characters following the period form the extension
- the period and the extension count against the 14-character limit
- you can code more than one period
- Rules for defining path names.

/ directory / directory ... / file

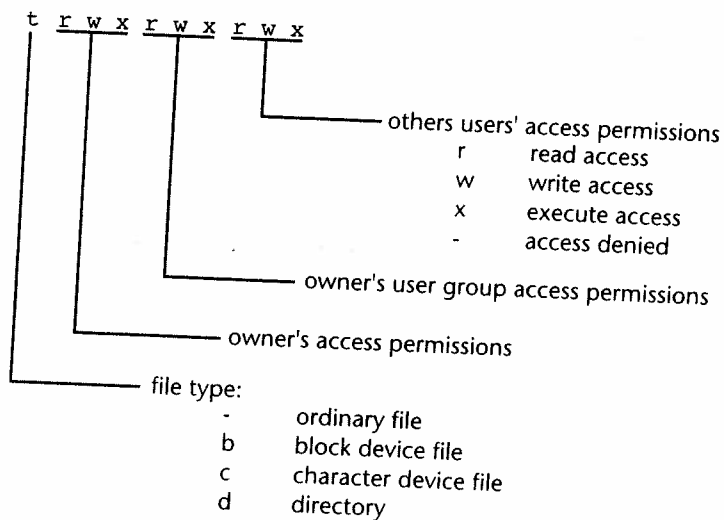


- a directory is a special type of file; thus the rules for defining a directory name are the same as the rules for defining a file name

- if the path name starts with a directory name instead of a slash, UNIX starts searching with the working directory
- Redirection parameters.

Operator	Meaning	Example
<	change source to a specified file or device	<myfile
>	change destination to a specified file or device	>tempfile
>>	change destination, usually to an existing file, and append new output to it	>>master.pay
	pipe standard output to another command or to a filter	cat file1 sort

- Access Permissions



## Commands and Utilities

- `cat` displays the contents of a file or files.

```
cat [file ...]
```

one or more file names

- `cd` changes the working directory.

```
cd [directory]
```

new working directory. If no directory is coded, the home directory is assumed.

- `chmod` changes a file's access permissions.

```
chmod who [operation] [permission] file ...
```

one or more file names

select from:

r	read access
w	write access
x	execute access
s	set ID

select from:

+	add permission
-	remove permission
=	reset permissions

select from:

u	user or owner
g	group
o	other users
a	all users

- `cp` copies a file or files.

`cp source destination`

└── destination file name or pathname  
└── source file name or pathname

- `csh` activates the C shell.

`csh`

└── no options or parameters

- `date` displays the system date and time.

`$ date`

└── no options

- `ln` creates a link.

`ln file1 [file2]`

└──

- normally, the new directory
- if not specified, the working directory
- if a file name is specified, it becomes another name (an alias) for file1

└── pathname of existing file

- `logout` logs a user off the system.

`logout`

└─ no options or parameters

Note: On most systems, press control-D to log off.

- `lpr` sends the contents of a file to the printer.

`lpr [-options] [file ...]`

└─ options include

└─ list of files to be printed

- c copy file before placing on print queue
- m mail report
- r delete (remove) file after placing on print queue

- `ls` lists the contents of a directory or directories.

`ls [-options] [directory ...]`

└─ list of directories

└─ options include

- a all entries, including invisible files
- d directory names only
- g group identification
- l long form
- r reverse alphabetical order
- s show size of each file
- t list files in time order (most recently modified files first)
- u show time last accessed

- mail allows a user to send or receive electronic mail.

- to send mail, use:

mail user-list

└─ login IDs of users to receive mail

- to receive mail, use:

mail [-options]

└─ options include:  
    p   display mail without prompts  
    q   quit  
    r   view mail in reverse (chronological) order

- man displays the UNIX manual page for the indicated command.

man name

└─ command or utility name

- mkdir creates one or more directories.

mkdir directory ...

└─ one or more directory names

- more displays a file one screen at a time.

more file ...

└─ list of files to be displayed

- `mv` moves or renames a file.

```
mv  file  file
    |      |
    |      +----- new file name or path name
    +----- old file name or path name
```

- `passwd` changes a user's password.

```
passwd
    |
    +----- no options
```

- `pr` prepares standard input or a file for printing.

```
pr  [-options]  file ...
    |            |
    |            +----- list of files to be printed
    +----- options include
                h      header (argument following this option)
                ln     page length n lines
                m      multiple columns
                +n     start numbering with page n
                -n     display n columns
                t      no header or trailer
                wn     line width n columns
```

- `ps` displays the status of a process.

```
ps  [options]
    |
    +----- select from:
                -a     all processes (any terminal)
                -l     long form
```

If no options are coded, displays status of all processes controlled by user's terminal.



- `pwd` displays the user's current working directory.

`pwd`

└─ no options

- `rm` deletes a file by removing a link.

`rm [-options] file ...`

└─ list of files to be removed

└─ options include

  f (force) remove files for which  
    user lacks write access permission  
  i ask before removing file  
  r delete directory reference and  
    directory itself

- `rmdir` deletes one or more directories.

`rmdir directory...`

└─ pathnames of one or more empty directories

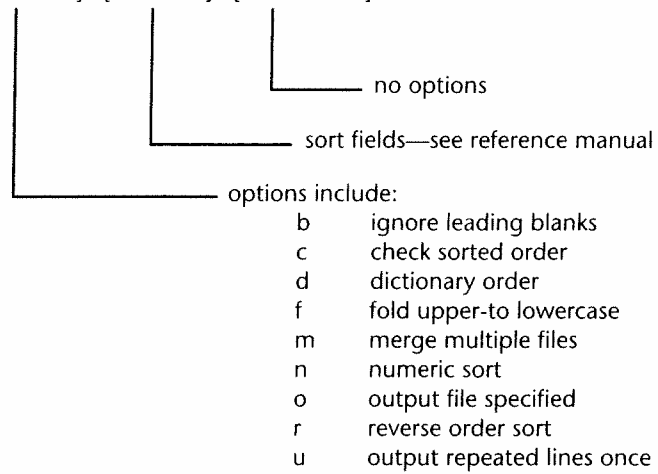
- `sh` activates the Bourne shell.

`sh`

└─ no options

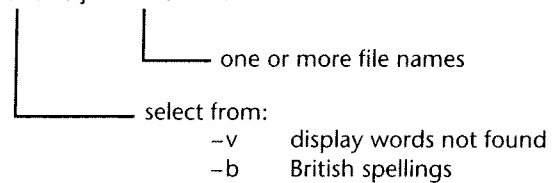
- `sort` sorts the contents of a file.

`sort [-options] [fields] [file ...]`



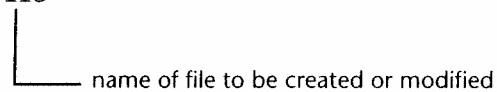
- `spell` checks a file for spelling errors.

`spell [options] file ...`



- `vi` activates the visual editor.

`vi file`



- `who` displays the names of users currently logged on the system.

\$ `who` [`am i`]

└─ if coded, displays the user's  
own current login name

- `write` sends real-time a message to another user.

`write` login-name [`terminal`]

└─ login name of receiver

└─ user's terminal