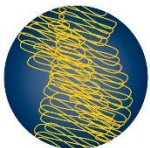


Concepts of Command Line



Command Line

- Command line is a way to interact with a computer program where the user (or client) issues commands to the program in the form of successive lines of text
- Used with computers/servers typically when there is not a graphical user interface (GUI)
- “shell” is used to describe the technique of using commands like a programming language

Terminal window
“shell”



```
Command Prompt

Directory of C:\Users\Jon\AppData\Local\BrawlBox
04/28/2016 11:20 AM <DIR> .
04/28/2016 11:20 AM <DIR> ..
04/28/2016 11:20 AM <DIR> BrawlBox.exe_Url_nlhqq3egly4so4t2xnh5x0n
05J5q4iv
0 File(s) 0 bytes

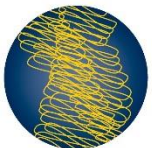
Directory of C:\Users\Jon\AppData\Local\BrawlBox\BrawlBox.exe_Url_nlhqq3egly4s
o4t2xnh5x0n5J5q4iv
04/28/2016 11:20 AM <DIR> .
04/28/2016 11:20 AM <DIR> ..
04/28/2016 11:20 AM <DIR> 0.71.5111.26120
0 File(s) 0 bytes

Directory of C:\Users\Jon\AppData\Local\BrawlBox\BrawlBox.exe_Url_nlhqq3egly4s
o4t2xnh5x0n5J5q4iv\0.71.5111.26120
04/28/2016 11:20 AM <DIR> .
04/28/2016 11:20 AM <DIR> ..
04/28/2016 11:20 AM user.config 1,111 bytes
1 File(s) 1,111 bytes

Directory of C:\Users\Jon\AppData\Local\Broadcom
04/18/2015 09:19 AM <DIR> .
04/18/2015 09:19 AM <DIR> ..
04/18/2015 09:19 AM <DIR> Bluetooth Software
0 File(s) 0 bytes

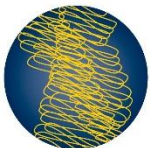
Directory of C:\Users\Jon\AppData\Local\Broadcom\Bluetooth Software
04/18/2015 09:19 AM <DIR> .
04/18/2015 09:19 AM <DIR> ..
04/18/2015 09:19 AM <DIR> sync
0 File(s) 0 bytes

Directory of C:\Users\Jon\AppData\Local\Broadcom\Bluetooth Software\sync
```



General syntax of command line

- Commands are often of these forms:
 - *action how to.files*
 - *action how source.file destination.file*
 - *action how < input.file > output.file*
 - *action1 how | action2 how | action3 how > output.file*
- Think of this like the English language: the *action* is a verb where the *how* is an adverb telling us exactly how to do the action (i.e., *sing loudly*)



General syntax of command line

- Commands are often of these forms:
 - *action how to.files*
 - *action how source.file destination.file*
 - *action how < input.file > output.file*
 - *action1 how | action2 how | action3 how > output.file*
- `< >` and `|` are redirections and tell the command line to bypass the standard output (your screen) to a named file, overwriting it
- Alternatives like `>>` will append without overwriting
- `|` creates a pipeline where the output of the first command becomes the input of the next and so on



General syntax of command line

Action,
Program,
Function,
Command

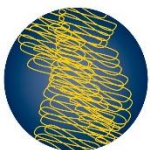
How,
Argument

Options,
Modifier,
Flag,
Switch

File(s)
Input,
Output,
Destination

```
$ head -n 1 big.data.file.txt
```

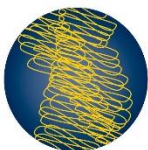
```
> head -n 1 big.data.file.txt
```



Help building commands

- Help pages exist in the form of a “man page” (short for manual page)
- Accessible from the command line or online

```
> man grep
```



```
GREP(1)                                User Commands                                GREP(1)
```

NAME
grep, egrep, fgrep, rgrep - print lines matching a pattern

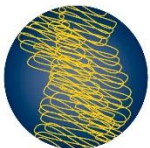
SYNOPSIS
grep [OPTIONS] PATTERN [FILE...]
grep [OPTIONS] [-e PATTERN | -f FILE] [FILE...]

DESCRIPTION
grep searches the named input FILES (or standard input if no files are named, or if a single hyphen-minus (-) is given as file name) for lines containing a match to the given PATTERN. By default, grep prints the matching lines.

In addition, three variant programs egrep, fgrep and rgrep are available. egrep is the same as grep -E. fgrep is the same as grep -F. rgrep is the same as grep -r. Direct invocation as either egrep or fgrep is deprecated, but is provided to allow historical applications that rely on them to run unmodified.

OPTIONS
Generic Program Information
--help Print a usage message briefly summarizing these command-line options and the bug-reporting address, then exit.

-V, --version
Print the version number of grep to the standard output stream. This version number should be included in all bug reports (see below).



Summary

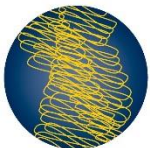
Action,
Program,
Function,
Command

How,
Argument

Options,
Modifier,
Flag,
Switch

File(s)
Input,
Output,
Destination

- Help is available (man pages)
- Case sensitivity!
- Spacing matters!



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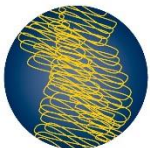
MiCDA

Michigan Center on the
Demography of Aging



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