

# Introduction to command line

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March 23, 2016

# What is command line?

```
/var/root # ls
dat      dos      hello    hello.c
/var/root # ls -lh
total 8
drwxr-xr-x  2 root    root      440 Mar 23 13:25 dat
lrwxrwxrwx  1 root    root        9 Mar 23 13:17 dos -> /root/dos
-rwxr-xr-x  1 root    root     2.0K Mar 23 13:50 hello
-rw-r--r--  1 root    root     242 Mar 23 13:37 hello.c
/var/root # cd ..
/var # ls
root tmp
/var # cd ..
/ # ls
bin      home      lost+found  proc      sys      var
dev      lib       mnt         root      tmp
etc      linuxrc  opt         sbin     usr
/ #
```

# Command line history



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Ken Thompson and Dennis Ritchie on a PDP-11

live coding caveat

## Benefits of command line

- Automation
- Reproducibility
- Required to run many programs

# Example

# Making it easier

Tab completion	Press Tab once to autocomplete.
	Press Tab twice to list potential completions.
History	Press Up or Down to view/edit previous commands.
man	Type <code>man XXX</code> to get help on command XXX.
google	Lots of webpages. Add "linux" and/or "tutorial"

# Directories

The screenshot shows a Windows Explorer window titled "Local Disk (C:)". The address bar displays "C:\". The left pane shows a tree view of the file system, with "Local Disk (C:)" selected. The right pane shows a list of files and folders. The status bar at the bottom indicates "30 objects (Disk free space: 2.08 GB)", "768 MB", and "My Computer".

File Edit View Favorites Tools Help

Back Search Folders

Address C:\ Go

Folders	Name	Folder Size	Type	Date
Desktop	My Shared Folder	1 KB	File Folder	2004
My Documents	Office10	439 KB	File Folder	2004
My Computer	Program Files	7,927,906 KB	File Folder	2004
3 1/2 Floppy (A:)	RECYCLER	45,174 KB	File Folder	2004
Local Disk (C:)	SIERRA	89,991 KB	File Folder	2004
ATI	System Volume Information	0 KB	File Folder	2004
Dev	TempDVD	969,424 KB	File Folder	2004
Documents and Settings	Test	0 KB	File Folder	2004
Games	Utils	3,394 KB	File Folder	2003
Install	wgetwin-1_5_3_1-binary	3,903 KB	File Folder	2004
Media	WINDOWS	2,904,701 KB	File Folder	2004
My Shared Folder	www	2,813,592 KB	File Folder	2004
Office10	AUTOEXEC.BAT	0 KB	MS-DOS Batch file	2003
Program Files	boot.ini	1 KB	Configuration file	2004
RECYCLER	CONFIG.SYS	0 KB	System file	2003
SIERRA	dvdlog.txt	3 KB	Text Document	2004

30 objects (Disk free space: 2.08 GB) 768 MB My Computer



## Directory shortcuts

.	The current “working” directory
..	The parent directory of the current directory
~	Your home directory (different for each user)
-	The last directory

ls

cd

pwd

mkdir

## What next?

- [LinuxCommand.org](http://LinuxCommand.org)
- google: software carpentry unix