



Command Line Basics

AMIA 2016 — DigiPres 101

Kara Van Malssen, AVPreserve

kara@avpreserve.com

November 8, 2018

What is the Command Line?

A **terminal window**, is a text-only window in a **graphical user interface (GUI)** that emulates a console.

A **GUI** is a type of human-computer interface (i.e., a system for people to interact with a computer) that uses windows, icons, pull-down menus and a pointer and that can be manipulated by a mouse (and usually to some extent by a keyboard as well).

A **command** is an instruction telling a computer to do something, such as launch a program.

A **command line interface (CLI)** is an all-text display mode that has a **command interpreter** running in it and that shows commands, including their **arguments**, and other data as they are typed in at the keyboard as well as the results of most such commands.

A command interpreter, also referred to as a **shell**, is a program whose primary function is to read commands that are typed into a console or terminal window and then execute (i.e., run) them.

Getting started

Move the HardDrive folder to your desktop

Either from the thumb drive or from <http://bit.ly/2fliaaA>

Opening the CLI Interface



Applications/Utilities/Terminal



Search for “cmd” and hit return

Show current directory



`pwd`



`ch or chdir`

Exercise: Try it! Where are you? Let's talk about file paths...

List directory contents



Basic

`ls`

Structured

`-l`

Recursive

`-R`

Basic

`dir`

With modified dates

`/T:W`

Recursive

`/s`

Exercise: List the contents of the current directory. Then try adding some of the other options. What are the differences?

Changing directories



Basic

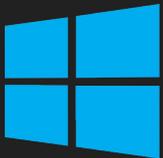
```
cd [dir name]
```

Up one level

```
..
```

Home

```
~
```



Basic

```
cd [dir name]
```

Up one level

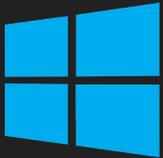
```
..
```

Exercise: 1) Change from your current directory to the HardDrive directory, 2) Change from HardDrive back up to the Desktop using ..

Creating directories



```
mkdir [dir name]
```



```
mkdir [dir name]
```

Exercise: Make a new directory in HardDrive called “newstuff”

Removing directories

First, a brief interlude...



https://www.youtube.com/watch?v=8dhp_20j0Ys

Removing directories



```
rmmdir [dir name]
```



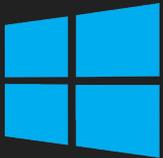
```
rmmdir [dir name]
```

Exercise: Remove the “newstuff” directory, then verify it was removed (hint: list the contents of the folder after removing it)

Removing files



```
rm [filename]
```



```
del [filename]
```

Exercise: Remove the file called `osd.xml` in the personal directory, then verify it was removed (hint: list the contents of the folder after removing it)

Copying files



```
cp [filename1] [filename2]
```



```
copy [filename1] [filename2]
```

Exercise: 1) Make a copy of the file called `payloadfile_1.txt` , 2) Make a copy of the file called `payloadfile_3.csv` and move it to the `video_formats` folder, then verify the copy.

Reading files



One page at a time

```
less [filename1]
```

Whole file

```
cat [filename]
```



One page at a time

```
more [filename]
```

Whole file

```
type [filename]
```

Exercise: Read the contents of the file called `unique-formats.csv` in `importantproject/video_formats/`

Moving files



```
mv [filename1] [filename2]
```



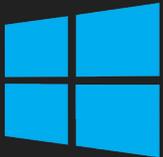
```
move [filename1] [filename2]
```

Exercise: 1) Move `payloadfile_2.csv` to the `video_formats` directory, then verify the result.

Re-directing output / saving to a file



```
[command] > [filename]
```



```
[command] > [filename]
```

Exercise: List the contents of the entire HardDrive folder and save it to a file called HardDrive.txt on the Desktop (go there first!). For Mac, use the options `-alR`. For Windows, use `/a /s`

Getting help with a command



Help

`[command] -h`
or `--help`



Command Manual

`man [command]`

`[command] /? Or`
`HELP [command]`

Connecting to a server



```
ssh [user]@[hostname]
```



Download PuTTY first
<http://www.putty.org/>. Then follow
above.

Demo...

Tips and tricks

Autocomplete filename / filepath	tab
Kill a process	control + d or control + c
Exit out of manual or other page view	q
Page forward in page view	space
Return to the beginning of command	control + a
Show last command	up arrow (Mac), F3 (Windows)
Return to home directory	cd + return (Mac), cd + %homepath%