

Forum:[Hack Forums](#)

Thread: [CLI\(Command Line Interface\) In-Depth/Easy To Follow/Detailed](#)

D?ath - May 29, 2013, 8:53 pm

UNDERSTAND THIS IS FOR REAL BEGINNERS This is not a pointless thread. This is a real topic I hear people having issues with and I think its a prevalent topic in today's new GUI formatting. Normally people don't know what goes on behind the program and this topic will explain that in a more restricted sense toward the CLI format.

Foreward

Any person in the IT field needs to know basic CLI (Command Line Interface). Now, normally people who see that when they are in the middle of a hack go, "Why do we need to do this old stuff?" or "What is this bullshit, I have Windows 8 not Windows 3.1!" Anybody who is a SUCCESSFUL HACKER has to know these basics and honestly it wouldn't hurt to know things about this area.

Deciphering CLI

So, how does it work? Its just as if your having a IM(Instant Message) session with your computer. The Computer starts off the conversation with a specific set of characters called a Prompt.

Code Computer: Would you like to play a game?

Human: _

You proceed to type a command..

Code Human: What kind of game?

Computer: _

The PC then executes the command and most likely displays information about the command you specified.

Code Computer: A very fun game.

Human: _(If you haven't caught on that's a scene from the movie War Game)

Once you get your new Prompt it means your able to put in your next instruction. :)

In today's new GUI's (Graphic User Interface) you can just give command by clicking your mouse. CLI is just like using the Search Bar in Google. You type in your Keyword and your press Enter. However, programs are restricted to the certain keywords that are embedded into that program.

Example of CLI: Let's say you want to open up and view the contents of a specific folder. From the command line, you would type a command(in this case "dir", we will discuss that too), and the computer would respond with a screen like this one.

Spoiler ([Click to View](#))

In GUI, you would navigate to your C Drive(like a normal person) look for Users and then your name. Then it will display the same folders, just with more pizazz and pretty colors.

Spoiler ([Click to View](#))

The point is that whichever interface you might use, the output is essentially the same.

Accessing the Command Line

There are several ways to get the Command Line using the Run Dialog Box

Windows XP: Click Start -> Select Run -> Type "cmd" or "command" (without the quotes) -> Press

Enter (on your keyboard)

Windows Vista or 7: Locate the search bar in Start -> type "cmd" or "command" (without the quotes) and press Enter (on your keyboard)

Windows 8: On the keyboard hold down the windows key (4 tiles button) and press "R" -> type in "cmd" or "command" -> press Enter (on your keyboard)

Alternatively in the start menu under programs, theres an accessories link and you should click on the Command Prompt application.

If you take time to notice in this picture:

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The default location the CLI refers to is the C:/Users/UserName.

At any point in the CLI you can type in the command "exit" and press Enter and the Window will close.

Spoiler ([Click to View](#))

Command Prompt

Command Prompt is always focusd on a specific directory or folder (as most will call it). Any commands you give will be focused only on the objects found at where the command prompt is focusing. If you see a prompt look like this:

Code C:/>You should know that it is focused in the C Drive.

If the prompt looks like this:

Code C:/Users/303315It will be focused on the 303315 location.

File Names and File Formats

Windows recognizes each program and data as an individual file. Each file has a name, which is stored with the file on the drive.

Fun Fact: In true Windows DOS file types, none can be longer than 8 characters long. The file extensions can only be 3 characters long. Most computer programmers still honor those limits in reference to the basic Lets look at the unacceptable characters that cannot be included in the file name. Examples: (/ \ [] + = ; , * ?). The Period or dot is ALWAYS going to separate the file name and the file extension. This format or system was known as the "8.3 Naming System". (The name being 8 character and 3 character to represent the actual format)

All file types that are accepted throughout the system are based on Microsoft DOS. If we look at those file types by referencing the above information:

Code john.exe

system.ini

test2.doc

driver.sys

logo [no extension just makes it a file]

teln.hThose are the acceptable true file types that you can find on every OS.

Other File Types like:

Code 4charext.exec

waytoolong.fil

bad?char.bat

.noThese are not acceptable True file types. (inside the file names i showed the reason they were not true. char is short for character)

The extension is the MOST important part of the file type. The reason why is because the extension tells Windows what program the file should open with.

Program files use ".exe" (for executable) or ".com" (for command)

Anything that is not a program is some form of data to help support that program. Different programs use different types of files. For instance, Microsoft Word uses ".docx" (or .doc for versions prior to 2007), while WordPerfect uses ".wpd" and Powerpoint uses ".pptx" (or .ppt for older versions before 2007)

Changing the Extension of a file does NOT change its contents. All it does is confuse Windows into not knowing what program to open it with.

All files are stored on the hard drive in binary(<http://bit.ly> [WARNING: potentially infected]/11rIRMw) format. But every program has its own way of reading and writing this binary data. Every unique method of binary organization is called a file format. In order for programs to understand eachothers format, there had to be a common database of binary. This is now called "Ascii" or "American Standard Code for Information Interchange. Ascii defines 256 eight-bit characters. Alphabet letters, numbers, symbols.

Heres the full chart.

Spoiler ([Click to View](#))

Ascii was great for a base of communication. Soon after, people around the world were being involved with computers and they needed their own version that incorporates their language. Eventually, the Unicode is invented and now it incorporates every character in most languages. the first 256 will always be the same as a tribute to Ascii.

Drives and Folders

When working with a CLI environment, you need to be able to focus the prompt at a specific drive and then the specific folder thast contains the programs and files you need to access. This can be a bit more complicated than it sounds like.

When Windows is booted, drives get assigned a letter(or name) to each hard drive partition(<http://bit.ly> [WARNING: potentially infected]/141ssE2) and to each disc or floppy drive. This is the order they are booted

Code A:/ <- Floppy

B:\ <- Floppy (if installed)

C:\ <-Hard drive

all the way to

Z:\ <- Hard drive (if have more than one installed)

Optical Drives (or Disc Drives) are labelled a letter right after the last hard drive is installed Whatever the Drive may be called, Windows uses a [/141tHTz\]Hierarchical](#) directory to organize the contents of those drives. All files are pulled into a group called a Folder. You'll hear techies say "Directory" instead. That's a term used in the DOS days. A folder can be inside another folder (called subfolders). However, 2 files cannot be named the same thing. Any folder that starts as the first folder of many more is called the "root".

When you describe a drive, you use its letter and a colon.

Code Example:

The C drive

C:

To describe as a root you add a backslash

C:\

The exact location of a file is called its Path.

Code Possible paths

C:\Program Files

C:\WINNT\System32

B:\Reports

D:\

DrDinosaur - May 29, 2013, 9:34 pm

You should focus on PowerShell as it's far more powerful.

F-Nuke - May 29, 2013, 9:34 pm

Really good tut! Nice basics. Helpful for noobs and CLI beginners.

Lawliet Lawsford - May 29, 2013, 9:37 pm

Nice thread man. This should help out a decent amount of people who don't know anything about CLI.

muzzy. - May 30, 2013, 1:14 am

Posted in the wrong section. CLI discussion goes here:

<https://hackforums.net/forumdisplay.php?fid=49>

D?ath - May 30, 2013, 2:13 pm

(May 30, 2013 01:14 AM)Muzzy ? Wrote: [\[CITE\]](#) Posted in the wrong section. CLI discussion goes here: <https://hackforums.net/forumdisplay.php?fid=49>

you see. that's debatable. The thing is, this is for beginners. And that section, made for experts, would find that useless.

(May 29, 2013 09:37 PM)Surenuff Wrote: [\[CITE\]](#) Nice thread man. This should help out a decent amount of people who don't know anything about CLI.

Updated, Thanks for leaving the positive feedback. Much needed :)

ViniPuh - June 2, 2013, 11:55 am

This should be mandatory to read for all newbies, you did a good job writing this ;)

D?ath - June 2, 2013, 2:19 pm

(Jun 2, 2013 11:55 AM)ViniPuh Wrote: [\[CITE\]](#) This should be mandatory to read for all newbies, you did a good job writing this ;)

Haha thank you, when i was a skid 5 years back i needed a Base to start on, and i wish i had a thread to start off with, and well this is exactly what i feel all noobies needed to start out with. it took me a week to write the first part in MS word and then i had to format it on here. and yeah well it just kept going. thanks for the positive feedback :)

eeee - June 3, 2013, 1:19 pm

>a humorous equation equaling the current year

>coding in batch

>bald man playing baseball with uneasy look on his face

D?ath - June 3, 2013, 2:03 pm

(Jun 3, 2013 01:19 PM)eeee Wrote: [\[CITE\]](#) >a humorous equation equaling the current year

>coding in batch

>bald man playing baseball with uneasy look on his face

Uhm... this just is not relevant to my amazing tutorial right here.. ???

ViniPuh - June 4, 2013, 10:55 am

And of course, some aspiring bureaucrat had to move this to a section where it is 100% certainly not going to be read by the intended group, the newbies.. facepalm

D?ath - June 4, 2013, 3:07 pm

(Jun 4, 2013 10:55 AM)ViniPuh Wrote: [\[CITE\]](#) And of course, some aspiring bureaucrat had to move

this to a section where it is 100% certainly not going to be read by the intended group, the newbies..
facepalm

HAHAHA thatll be the person that knew nobody will look at this damn section... whatever... just report it and move on i guess.???

copycatr - June 10, 2013, 11:51 am

Hey. I really enjoyed your tutorial, though I wish you had more entries for me to learn from. It gave me alot of information that I didn't know from other tutorials! I was wondering if you could please make some more tutorials for me to go off of? ?

D?ath - June 10, 2013, 4:41 pm

(Jun 10, 2013 11:51 AM)copycatr Wrote: [\[CITE\]](#) Hey. I really enjoyed your tutorial, though I wish you had more entries for me to learn from. It gave me alot of information that I didn't know from other tutorials! I was wondering if you could please make some more tutorials for me to go off of? ?

Totally, I am gonna be going over the fundamentals of commands in my next tut. It'll be about another week before I post. if not, ill make sure to post tonight.

Agent47 - June 10, 2013, 8:16 pm

Good work with the thread dude. Keep up the great work.

Nakamoto. - June 11, 2013, 10:14 am

Not a bad guide you got here.

Off-topic: this is my 300th post.

jake1218 - June 12, 2013, 1:13 pm

Very useful if you just got here, good guide for beginners.

D?ath - June 12, 2013, 6:29 pm

(May 29, 2013 09:34 PM)DrDinosaur Wrote: [\[CITE\]](#) You should focus on PowerShell as it's far more powerful.

that is going in the 3rd tutorial..

TheBeneath - June 13, 2013, 1:57 am

Good tutorial, should help beginners a bit who are interested.

D?ath - June 17, 2013, 8:19 pm

(Jun 13, 2013 01:57 AM)TheBeneath Wrote: [\[CITE\]](#) Good tutorial, should help beginners a bit who are interested.

Thanks a bunch lol i appreciate the feedback

det5hq - June 19, 2013, 1:19 pm

Thank you for the tut. It really helped. I'm a complete and total noob and I'm trying to learn as much as I can. I'm taking some classes in school but I can learn here what I don't get in class. I'm taking an ethical hacking class in a small school so we don't have the means to try out what we've learned. I'm really digging the class. This stuff is cool but I want more. Please be patient with me when I ask what may seem like a dumbass question. I just want to learn.

3SidedSquare - June 26, 2013, 6:24 pm

Inaccuracy is inaccuracy, no matter where it is.

D?ath - July 7, 2013, 11:17 pm

(Jun 26, 2013 06:24 PM)3SidedSquare Wrote: [\[CITE\]](#) Inaccuracy is inaccuracy, no matter where it is.

what are you talking about dude lol?

Vexane - July 8, 2013, 4:28 am

(May 29, 2013 09:34 PM)DrDinosaur Wrote: [\[CITE\]](#) You should focus on PowerShell as it's far more powerful.

Hence the name 'POWERshell' ? do you get it, cause it's more POWERful ohhh I crack myself up

Nakamoto. - July 8, 2013, 8:40 am

(Jul 8, 2013 04:28 AM)Varosion Wrote: [\[CITE\]](#) Hence the name 'POWERshell' ? do you get it, cause it's more POWERful ohhh I crack myself up

Um do you even know what you are talking about?

D?ath - July 8, 2013, 11:26 am

(Jul 8, 2013 08:40 AM)RenRioku™ Wrote: [\[CITE\]](#) Um do you even know what you are talking about? right...

Powershell is not a powerful tool. its a more sophisticated tool.

VEAxORE - July 8, 2013, 11:49 am

Nice guide mate, made for a full on noob. But seriously if I had this when I first started I would have been 20 minutes better than I already am. This is going to be helpful for people who don't have a clue what CLI is, which is needed in this section...

Illicit - July 8, 2013, 8:03 pm

Aaah War Game... such a legitimate view of how hackers hack.
Sarcasm intended.

Quote:Anybody who is a SUCCESSFUL HACKER has to know these basics and honestly it wouldn't hurt to know things about this area.

Now...if we where on the topic of Debian(Or any other Linux Distribution or even UNIX) commands then yes.

MS-DOS Batch commands though?

317312_temp - July 8, 2013, 9:09 pm

(May 30, 2013 02:13 PM)303315 Wrote: [\[CITE\]](#) you see. that's debatable. The thing is, this is for beginners. And that section, made for experts, would find that useless.

Just because experts reside here does not mean the section is made for experts. Trust me, there's too many skids for it to be made for experts.

Illicit - July 8, 2013, 10:44 pm

(Jul 8, 2013 09:09 PM)317312_temp Wrote: [\[CITE\]](#) Just because experts reside here does not mean the section is made for experts. Trust me, there's too many skids for it to be made for experts.

By experts are you referring to the people releasing Batch files with fancy graphics (Well, as fancy as a text based Graphical User interface can get)?

Nakamoto. - July 9, 2013, 12:51 pm

(Jul 8, 2013 10:44 PM)Illicit Wrote: [\[CITE\]](#) By experts are you referring to the people releasing Batch files with fancy graphics (Well, as fancy as a text based Graphical User interface can get)?

There are a lot of really good batch scripts in this section, you should take the time to check some of them out.

Illicit - July 9, 2013, 4:03 pm

(Jul 9, 2013 12:51 PM)RenRioku™ Wrote: [\[CITE\]](#) There are a lot of really good batch scripts in this section, you should take the time to check some of them out.
Refer me too some impressive ones..?

317312_temp - July 9, 2013, 5:53 pm

I'd say my minesweeper script is fairly impressive.

D?ath - July 9, 2013, 6:52 pm

(Jul 9, 2013 05:53 PM)317312_temp Wrote: [\[CITE\]](#) I'd say my minesweeper script is fairly impressive.

When i was in my AP Robotics class in HS i remember making an AI (represented by Alt+1) going though a maze without hitting any walls. it would read off of a txt document for the maze script. It was pretty fun but it was soo hard to do considering i skipped over and googled most of my Intro to Comp Sci Class

317312_temp - July 9, 2013, 7:03 pm

(Jul 9, 2013 06:52 PM)303315 Wrote: [\[CITE\]](#) When i was in my AP Robotics class in HS i remember making an AI (represented by Alt+1) going though a maze without hitting any walls. it would read off of a txt document for the maze script. It was pretty fun but it was soo hard to do considering i skipped over and googled most of my Intro to Comp Sci Class

I also made a maze solver in batch. Was a little slow, but that was mainly due to the inability to update individual lines on the screen.

D?ath - July 12, 2013, 1:17 am

(Jul 9, 2013 07:03 PM)317312_temp Wrote: [\[CITE\]](#) I also made a maze solver in batch. Was a little slow, but that was mainly due to the inability to update individual lines on the screen.

Dude, it was fun though. i was so proud of myself when i integrated menus and color options for the ASCII character to use as the AI

iJaTyX - July 12, 2013, 4:53 am

(Jul 9, 2013 05:53 PM)317312_temp Wrote: [\[CITE\]](#) I'd say my minesweeper script is fairly impressive.

Fellow user Kadabra (formerly Windows 7) made a Minesweeper script.

<https://hackforums.net/showthread.php?tid=3429808>

I suggest you check it out.

D?ath - July 13, 2013, 12:23 am

(Jul 12, 2013 04:53 AM)iJaTyX Wrote: [\[CITE\]](#) Fellow user Kadabra (formerly Windows 7) made a Minesweeper script.

<https://hackforums.net/showthread.php?tid=3429808>

I suggest you check it out.

Did you even bother to look at my tut :p

White Light - July 13, 2013, 5:44 am

(Jul 12, 2013 04:53 AM)iJaTyX Wrote: [\[CITE\]](#) Fellow user Kadabra (formerly Windows 7) made a Minesweeper script.

<https://hackforums.net/showthread.php?tid=3429808>

I suggest you check it out.
That is me, you ding dong. Go home, you're more than just inebriated.

iJaTyX - July 13, 2013, 12:11 pm

(Jul 13, 2013 05:44 AM)Kadabra Wrote: [\[CITE\]](#) That is me, you ding dong. Go home, you're more than just inebriated.

No really? I couldn't tell. It's not like I posted that.

D?ath - July 16, 2013, 2:34 pm

(Jul 13, 2013 12:11 PM)iJaTyX Wrote: [\[CITE\]](#) No really? I couldn't tell. It's not like I posted that.
Hope you enjoyed the explanation dude!!

D?ath - December 23, 2013, 9:39 pm

(Jun 11, 2013 10:14 AM)RenRioku™ Wrote: [\[CITE\]](#) Not a bad guide you got here.

Off-topic: this is my 300th post.
Memories :p i wish I could get this stickied :(

REKTED BY LOLI GODS - June 2, 2015, 1:04 pm

This is a very high quality this very detailed!

b00st3d - June 2, 2015, 1:18 pm

Ah yes, and it has also been a year and a half since the last post on this thread.

SiNdicate - June 2, 2015, 9:55 pm

Well, that was great timing. This really pointed me in the right direction. I've been looking over HF and there are so many places I want to get to and so much to learn, but I had nowhere to start.
Thanks for this glorious tut.

D?ath - November 24, 2016, 9:37 am

I havent replied but i hope you all enjoyed my tutorial. Its very indepth and covers some basic shit.

dFlow - July 20, 2017, 2:53 pm

Bumping this.. nice read Death. P.S welcome back.

x4x552 - July 27, 2017, 10:41 am

You should focus on PowerShell as it's far more powerful.

D?ath - July 28, 2017, 2:28 pm

(Jul 27, 2017 10:41 AM)x4x552 Wrote: [\[CITE\]](#) You should focus on PowerShell as it's far more powerful.

Just cause it says "power" doesnt mean ifs powerful xD

?CARUs L?VE?™ - July 28, 2017, 2:43 pm

(Jul 28, 2017 02:28 PM)D?ath Wrote: [\[CITE\]](#) Just cause it says "power" doesnt mean ifs powerful xD
I beg to differ. Powershell IS much more powerful than Batch.

Travelers - July 29, 2017, 9:57 am

(Jul 28, 2017 02:28 PM)D?ath Wrote: [\[CITE\]](#) Just cause it says "power" doesnt mean ifs powerful xD
Batch is good if you don't know what PowerShell is. As soon as you get a real job managing multiple systems, batch quickly becomes irrelevant. Even PsExec is waning, as PowerShell can handle more with less, again, across multiple systems.

motherfawker666 - July 30, 2017, 6:01 pm

On accessing the Command Prompt:

You can use the 'WinKey + R' method on any Windows machine since XP.

On Windows 8 and up you can use '[WinKey + X] A' to open an Admin prompt and '[WinKey + X] C' to open a non-elevated prompt.

Also, the people here are right about PowerShell. In a real world job managing Windows machines you aren't really going to use Command Prompt. CMD is decent for doing some basic stuff on your own machine but its really not scalable.