

Command Prompt Exercise

This document will cover the use of the following Command Prompt commands:

CD, MD, RD

DIR

Use of Wildcards




TREE

XCOPY










CLS

CTRL-C




Output redirection, and more

	Command to type	Results and notes
1.	<p>First, we explore the CD command.</p> <p>Within a virtual machine open both a Command Prompt and Windows Explorer. Position the two windows so that they are viewable side-by-side. Make C:\Windows\System32 the selected folder in the tree view (left pane) in Windows Explorer.</p>	<p>This will allow the student to see two views of the same file system.</p> <p>What you see in the Command Prompt environment is called the <i>prompt</i></p> <p>In Windows XP the current prompt looks like: C : \Windows\System32></p> <p>In Windows Vista the current prompt looks like: C : \Users\UserX></p>
2.	<p>Type CD . . and hit .</p>	<p>This command changes the current directory (CD for <i>Change Directory</i>, or <i>Current Directory</i>) to one level higher in the file system.</p> <p>You can also type CD and hit  to view the current directory, but this is really only valuable if you customize your prompt, which is an advanced topic.</p> <p>The current prompt looks like: C : \Users></p>
3.	<p>Once again type CD . . and hit .</p>	<p>The current prompt looks like: C : \></p> <p>This is also called the Root directory.</p>







Command Prompt Exercise

4.	<p>Now, use the CD command to navigate <i>one level lower</i> in the file system.</p> <p>Type CD Windows.. and hit .</p>	<p>Make sure there is a  (space) after the CD command.</p> <p>The current prompt looks like: C:\Windows></p>
5.	<p>Now, use the CD command to navigate yet one level lower in the file system.</p> <p>Type CD System32 and hit .</p>	<p>Make sure there is a  (space) after the CD command.</p> <p>The current prompt looks like: C:\Windows\System32></p>
6.	<p>Once again type CD\ and hit .</p>	<p>The current prompt looks like: C:\></p> <p>This is the quick technique to navigate to the Root directory.</p>
7.	<p>Now, use the CD command to navigate <i>more than one level lower</i> in the file system.</p> <p>Type CD \Windows\System32 and hit .</p>	<p>The current prompt looks like: C:\Windows\System32></p> <p>Note, the path is preceeded by a "\" to indicate a path relative to the root of the current drive.</p>
8.	<p>Return to the Root directory with type CD\</p>	<p>The current prompt looks like: C:\></p>
9.	<p>Next, we explore the MD command, which makes directory entries.</p> <p>Type MD Data and hit .</p> <p>Navigate to the new directory (or folder, in Windows Explorer) using CD Data</p>	<p>Make sure there is a  (space) after the MD command.</p> <p>Always hit  after entering a Command Prompt command to process your command. I will skip the reminder from here on out.</p> <p>The current prompt looks like: C:\Data></p>






Command Prompt Exercise





10.	<p>Type MD ExcelDocs Type MD "Business Letters" Type MD ZooProposal</p>	<p>Make sure you use the double quote marks whenever the foldername has a space.</p> <p>The current prompt still looks like: C:\Data></p> <p>Now, let's use another Command Prompt command to <i>view</i> the folders you made. You should be able to view the new folders in Windows Explorer.</p>
11.	<p>Next, we explore the DIR command to view directory contents, both folders and files, in the <i>immediate directory location</i>.</p> <p>Type DIR and hit .</p>	<p>You should see a <i>listing</i> of the directories you created.</p>
12.	<p>Type CD\ to navigate to the Root directory. Then type DIR /S to view the files and folders in the current directory <i>and subdirectories (/S)</i>.</p>	<p>The current prompt still looks like: C:\></p> <p>Notice the direction of the slash changed with DIR /S.</p> <p>Notice also that the screen output occupied more than one screen-page of information and ends up scrolling beyond being visible.</p>
13.	<p>This time type DIR /S /P to view all the files and folders in the current directory and subdirectories, one screen <i>page</i> at a time (/P).</p>	<p>Press any key (really, any key) to move to the next screen page of information.</p> <p>To "break" out of the current command hit  - . This is described in more detail later.</p>
14.	<p>Type CD \Windows\System32</p>	<p>The current prompt still looks like: C:\Windows\System32></p>

Command Prompt Exercise

15.	<p>Next, get introduced to the wildcard characters of “*” and “?” which are used in searches with DIR and other commands</p> <p>Type DIR g*.* which will list every file in the current directory starting with a “g” regardless of the file extension. This could also be combined with /P.</p> <p>Type DIR g*.exe which will list every file starting with a “g” that exactly have “.exe” as the file extension.</p> <p>Type DIR g??.*??? which will list every file starting with a “g” that exactly have two additional characters in the base filename and a three letter file extension.</p>	<p>The “*” character represents 0, 1, or more characters in a search string.</p> <p>The “?” character represents exactly 1 character in a search string, but more than one “?” can be used.</p> <p>The file "gdi.exe" should be found with this search.</p>
16.	<p>Normally, the output of a command prompt command is sent to the display. There are times when it is valuable to <i>redirect</i> the output of a command prompt command to a file instead. This is accomplished by using the > symbol followed by a path and filename.</p> <p>Type DIR g*.exe > c:\Data\MyOutput.txt and hit .</p>	<p>Notice, there is not output on the display. That's because the standard output was <i>redirected</i> to a file instead of the screen. Now, use Notepad to open the file, or, enter the following command at the command prompt followed by :</p> <p>(Don't forget to type the word TYPE).</p> <p>TYPE c:\Data\MyOutput.txt followed by .</p>
18.	<p>The next topic is getting help with commands. With almost any command prompt command you can obtain a syntax reference, or rulebook on how to use that specific command by typing /? after the command. Examples would be:</p> <p>DIR /? CD /? TREE /? COPY /? XCOPY /?</p>	<p>Try them, even though you haven't been introduced to all of them.</p> <p>Quiz: What is the difference between COPY and XCOPY?</p>
19.	<p>At the command prompt you can also type HELP to get a <i>list</i> of available command prompt commands that a part of the operating system.</p>	<p>Try typing HELP.</p>
20.	<p>Did you know you know you can cycle through, forward and backward, all the previous commands you've typed at the command prompt? Merely use the  and  keys to cycle through the previous commands.</p> <p>You can tap the  key more than one time to cycle</p>	<p>In earlier operating systems this capability was enabled with a special program called "DOSKey".</p> <p>Note, if you close the command prompt and open a new command prompt the new prompt will be unaware of your previous commands.</p> <p>If you close the command prompt you lose all</p>

Command Prompt Exercise

	through multiple previous commands.	history of previously used commands.
21.	Type CD\ to navigate to the Root directory.	The current prompt still looks like: C:\>
22.	Next, we'll use a technique used previously and combine it with new skills. Observe your current prompt, which is C:\> , or, the Root directory. Now type DIR C:\windows\system32\g*. * which allows you to obtain a file listing from a different area of the file system <i>than you're currently pointed to</i> , provided that you provide a path for the command to act upon.	The current prompt looks like: C:\>
23.	There are times when you begin a long running command and decide to stop the command in the middle of it's execution. This places a <i>break</i> in the command. To break command execution, while the command is still running, hold down the  and then <i>tap</i> the  key. In a this would be written as either:  -  , or, CTRL-C. To try this, tap the  key to repeat your previous command, and thereafter quickly hit the break keystroke.	Notice the command halts before it completes. This is useful to save time and possibly useful if you have mistyped a command and want to <i>minimize damage</i> .
24.	The next command to learn is the TREE command, which shows <i>only the folder structure</i> from the current or designated directory all the way to the bottom of the file system. Note, this output can also be redirected to a file. Try the following commands: TREE TREE c:\data TREE c:\windows > c:\data\MyTreeList.txt	Open the file you created.
25.	Your turn! Use the HELP and /? features to explore the use of the COPY and XCOPY commands. Try the following: XCOPY c:*.jpg c:\data	See if the files you copied are truly in c:\data> .
26.	Next, to clear your screen of previous output use: CLS	CLS stands for "Clear screen".

27.	Here's a tip...you can use the  and  keys to move to the far left or far right of my current command prompt command.	
28.	Another tip: use the  or  key combinations to move one string of characters to the right or left of my current cursor position within the command prompt.	

Final Thoughts

Even though graphical user interfaces have been around for over thirty years (yep) there is still a great deal of value in becoming handy at the command prompt. There are many useful command prompt commands such as:

- **IPCONFIG** , such as **IPCONFIG /all** for IP configuration information and troubleshooting
- **TRACERT**, such as **TRACERT www.usatoday.com**
- **ROUTE**, such as **ROUTE PRINT**
- **NETSTAT**, such as **NETSTAT -a**
- The Windows **NET** command with many available options.
- The Windows **NETSH** command with many available options.
- **NSLOOKUP** for DNS troubleshooting
- The **DS** commands such in Active Directory as:
 - **DSADD**
 - **DSGET**
 - **DSMOVE**
 - **DSQUERY**
- **NET** for various areas of Windows administration, like creating a new user.
- **NETSH** for various areas of network configuration on a Windows machine, like setting a static IP address.
- **NETSTAT** for NetBIOS name troubleshooting.

As a general rule, the larger the population of PCs and servers, and the smaller the administration staff, the more useful the command prompt becomes.

And in case you haven't heard Microsoft has made massive power available in an alternative command prompt environment, or shell, called Windows PowerShell. This is your Google assignment, to find out more about PowerShell.