Working with the Command Prompt

CIT 1100 Lab 8.1

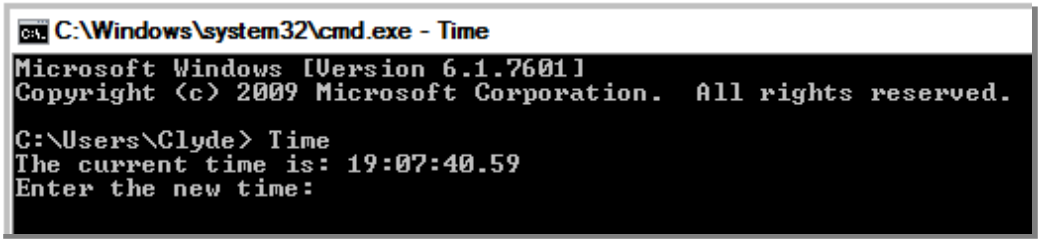
8/17/13

This laboratory activity will familiarize you with the command prompt used in Windows 7. The Windows command prompt is a DOS **emulator**. DOS was an earlier operating system. The term **emulator** means the command prompt will look and feel like the original DOS command prompt. The command prompt is also referred to as the **command interpreter** because it interprets commands you enter. To initiate the command prompt → **Start** → Enter ***CMD*** in the box -

There are two different programs that will generate a command prompt in Windows **command.com** and **cmd.exe**. Try them both to see the slight differences; **Command.com** is an early version of the original DOS program used to run the DOS prompt. It is identified by the Windows operating system as a DOS program. **Cmd.exe** is the DOS emulator program. It runs a more modern version of the command and it is the version you will use in this lab. **Cmd.exe** is the NT version of the command prompt emulator and is the default emulator for Windows 2000, Windows Vista, Windows 7 and Windows 8. Command.com is the default command prompt emulator for Windows Me, Windows 98, and earlier operating system versions, which are not based on the Windows NT operating system.

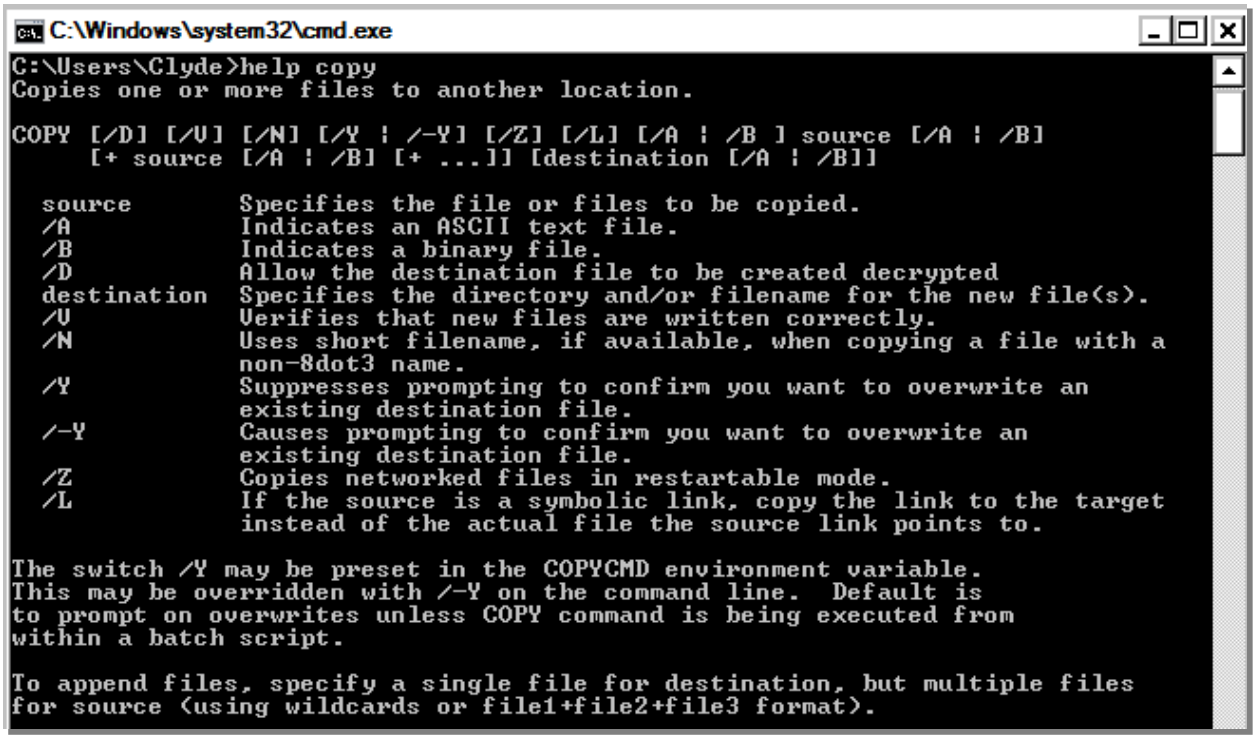
Command Syntax -

All letters, numbers, and/or special characters must be typed and entered as a stream of characters in a specific order, including spaces. The rules for inputting the commands at the command prompt are referred to as **syntax**. The command will not be recognized by the computer unless it adheres to the proper syntax. For example, the command for displaying and changing the time is shown in the partial screen capture below.



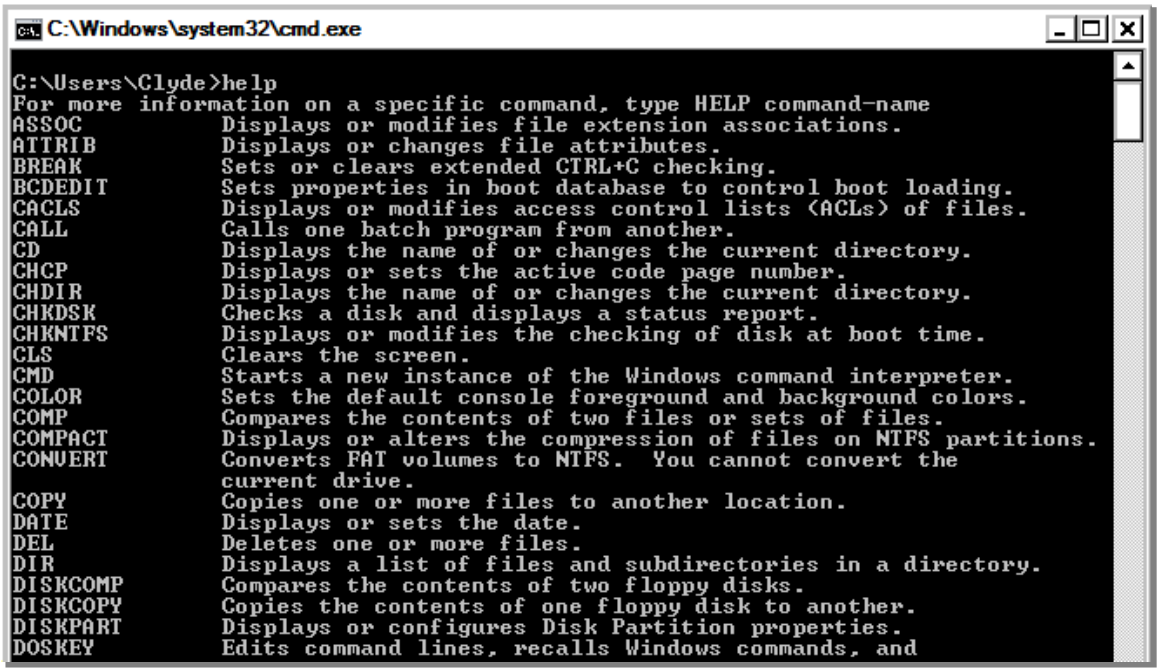
When the command **time** is issued at the command prompt, the time is displayed and an option to

change the current time is displayed. You must enter the new time in the exact manner as indicated. The hour, minutes, and seconds must be entered as in the example, separated by colons. Otherwise, the new time will not be accepted by the computer. For most commands, the syntax will be much more complicated as in the following example of the **copy** command.



The **copy** command must be issued in proper order, identifying the source and destination of the file being copied. There are also many different switches available that can be used with the command to modify the results. A switch used with the command is represented by the slash symbol (/) and must be entered in a specific location. Look at the syntax for the copy command in the screen capture. Notice that the switch used to verify that the file has been copied is a slash followed by the letter V. It should be inserted into the command after the command **copy** and before the source location has been entered.

You can always access limited help for a command by using the **help** command. When the help command is issued at the command prompt, a list of commands will appear. Look at the following screen capture of the results of issuing the help command at the command prompt.



Limited information about each command is displayed. Reading the description of the **copy** command, you can see that Help shows that this command is used to copy one or more files to another location.

To find more specific but still limited information about a command, you will enter the **help** command followed by the command you wish more information about. An alternative method is to use the **?** switch after a command.

For example, **dir /?** shows help about the command **dir**. Look at the two examples of entering the command for help on the copy command below:

- help copy
- copy /?

Internal and External Commands

There are two types of commands that can be issued from the command prompt: internal and external. Internal commands are part of the command prompt emulator program and external commands are independent programs written to enhance the command interpreter's functions. For example, the command **date** is part of the emulator program. If you copy the cmd.exe program, the date function will be a part of it and can be run from the cmd.exe file. If you attempt to run an external command such as **format**, **chkdsk**, or **attrib**, from the cmd.exe program, it will

fail. The files for these commands must be copied to the same location as the cmd.exe file. For example, if you copy the cmd.exe file to a USB drive, then you must also copy the external command to the same USB drive in order to execute the external command.

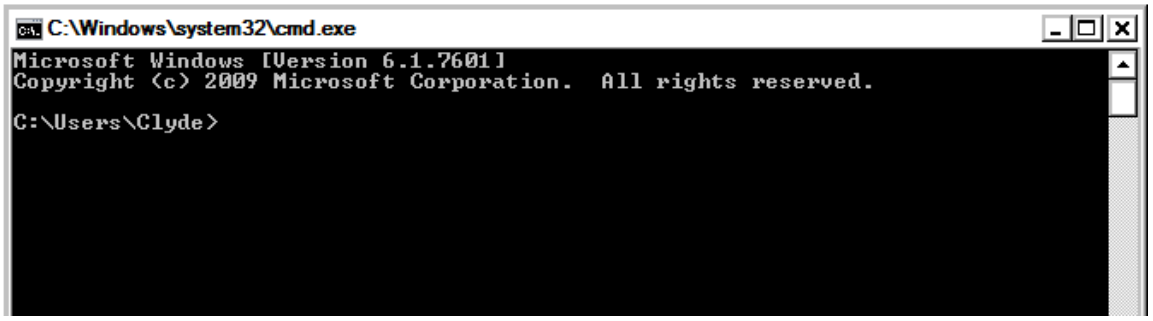
Command	Description
date	Displays the current date and provides you with the opportunity to change the date.
dir	Displays the current directory contents.
exit	Closes the command prompt.
help	Displays a list of commands that can be used at the command prompt. It can also be used to find information about a specific command when used in combination with the command. For example, **help copy**.
time	Displays the current time and provides you the opportunity to change the time.
ver	Displays the current version of the operating system.

Procedure-

Before starting this lab turn on your system to be certain that it works properly then shut it down using the proper shutdown procedures for the operating system you are using. (Click on **Start →Shutdown**)

Begin -

- Start → Enter **CMD** (The Start button is located at the bottom left of the screen.) You should see a Command Prompt window similar to the one in the following figure.



Pay particular attention to the information displayed at the command prompt. Notice that it displays the version of the Microsoft Windows operating system and the copyright date.

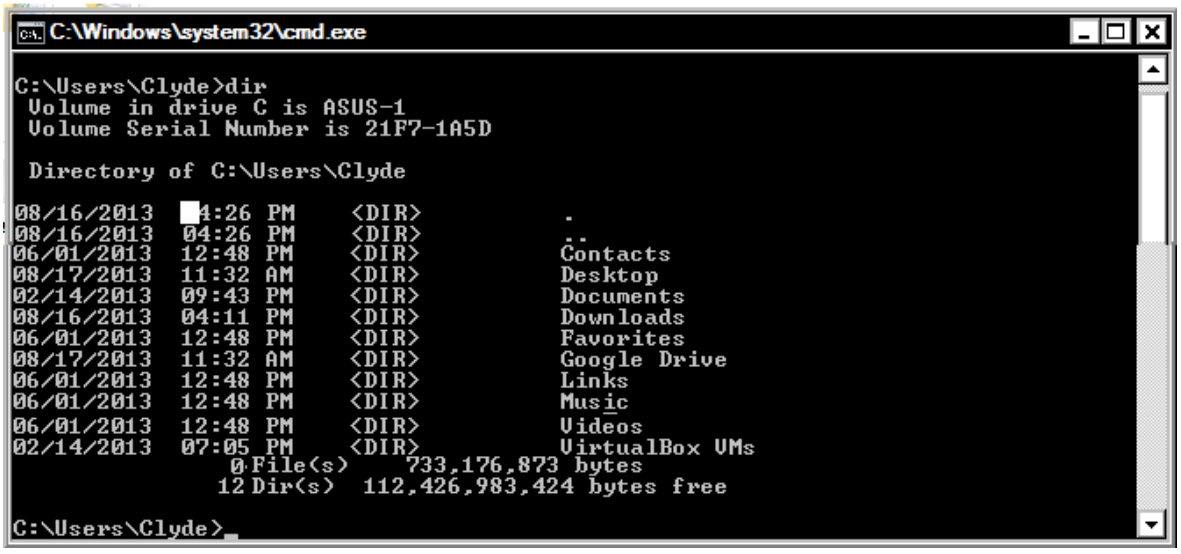
The default Windows 7 command prompt is the name of the user account and the group

the user belongs to. For example, in C:\Users\Clyde>, the user account is **Clyde** and the user group he belongs to is **Users**. The Windows 7 default command prompt displays the directory Documents and Settings followed by the user account name. For example, C:\Documents and Settings\Clyde>.

- Record what your command prompt display looks like in the space provided.

- Type the command **exit** at the command prompt. The Command Prompt window should close.
- Open the command prompt again following the step described above.
- Close the command prompt windows clicking the **Close** button. This button is located in the upper-right corner and is represented by an **X** inside of a box.
- The command prompt program file is **cmd.exe**. It can be started by entering **cmd.exe** in the **Run** dialog box located off the Start menu of Windows. Try accessing the command prompt now by typing **cmd** in the Windows **Run** dialog box.

The Command Prompt window should be opened at this time. Type the command **dir** and watch the screen closely. You should see a display similar to the following screen capture

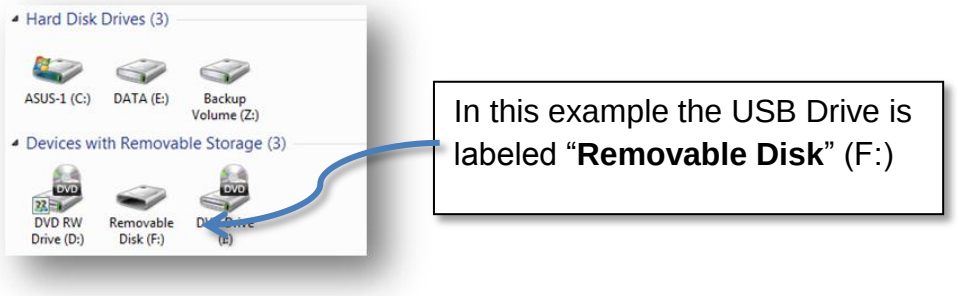


The **dir** command displays a list of directories as well as identifies the drive letter, the drivelabel (drive name), and the volume serial number. The volume serial number is created automatically at

the time the hard disk drive partition is first created. The exact date and time in hours and seconds is expressed as a hexadecimal number. Since the exact date and time is used to create the volume serial number, each hard disk drive or each partition will be unique.

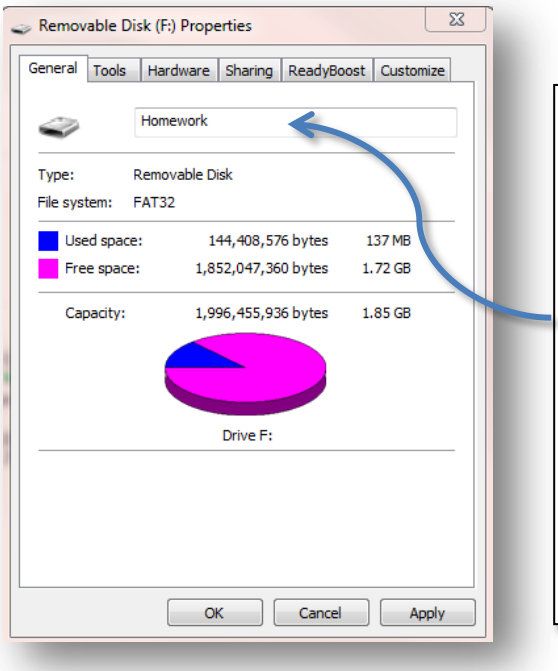
- Close the **Command Prompt** window and open **Windows Explorer** by clicking **Computer** located on the **Start** menu. You should see a view of all drives, such as the Local Disk (C:) and any DVD or CD drives installed. You may have to modify the view to get the same result, click on the small icon in the upper right corner of Explorer (it has a small downward arrow) and select **Medium Icons** from the drop down menu.

- Plug in a USB driver and watch it appear in the **Windows Explorer**. Record the letter used to represent the USB drive. For example, a computer might have the default local hard disk drive represented as C:, a new volume as D:, and a DVD drive as E:. The USB drive will typically **become F:** or G:. The exact assignment of the drive letter for a USB drive will vary according to circumstances. Sometimes, a computer used in a lab setting that has had an external backup drive or a path set to a network drive will retain a letter for that location, thus causing the USB drive to skip the next logically assigned drive letter. Look at the screen capture. Notice that the USB drive is identified as a "Removable Disk" followed by the assigned drive letter.



If you have multiple thumb drives connected at any one time it can become difficult to tell them apart. This can cause problems if you decide to completely erase a drive then realize you erased the wrong drive! There is a simple remedy for the problem, you should always name your thumb drives.

- While in Explorer right click on the thumb drive, letter F: in this example, then select Properties to open the **Drive Properties** dialog box.



The **Properties** box displays important information about the drive including **Used** and **Available** space.

To name the drive enter the name in the space shown. The number of letters is limited. Enter a label on your drive, and determine the maximum allowed size of the label. ____

This is referred to as the **Volume label**.

- After you name the drive click **OK** to save and see the way it's displayed in **Explorer**.
- Reopen the command prompt.
- Enter the following command to reveal the contents of the USB drive: **dir F**:

Where **f:** represents the drive letter of the USB Flash drive. Use all lowercase letters for the command and be sure to leave one space between the command and the drive letter. The command will display the contents of the directory. Information such as a list of any files or directories contained on the USB Flash drive will be presented. You will also see the USB Flash drive referred to as a "volume.", unless you renamed it. The volume drive letter will be identified as well as any label assigned to the volume. For example, the Gigabank brand will identify the USB Flash drive as volume GIGABANK. Also, note that the USB Flash drive will have a volume serial number assigned such as 9E54-EEC6. The serial number of the volume

is unique and helps the computer operating system identify each available volume on the computer as well as any network volumes available.

- Enter the command **DIR E**: using all uppercase letters to see if there is any effect on the command.
- Enter the command **dir z**: and then record the screen message that appears when there is no drive Z.
- Now, enter the help command at the command prompt and view the results. A list of commands should appear in the Command Prompt window.
- Type the command **ver** to display the version of the operating system that is running.
- Enter the command **time** to display the time. After the time is displayed, press the [Enter] key once more without changing the time.
- Enter the **date** command to display the date. After the date appears, press the [Enter] key without changing the date.
- Now, enter the command **help dir** and view the results.
- Enter **dir /?** at the command prompt and view the results.
- Now, enter **copy** at the command prompt. The **copy** command used by itself will generate an error message at the command prompt. Record the message displayed as a result of issuing the command.

- Enter the command **xyz123** at the command prompt and record the message generated in the space provided.

- Compare the two error messages that you created in this step and the last step. You will notice that the copy command is a recognized command and generated an error message because of the way it was entered. The second error message states that the input at the command prompt is not a recognized command. In other words, the first was a syntax error and the second is not a recognized or legal command.

Take a few minutes to review or practice the commands covered before answering the review questions on Black Board.