Batch File Basics

# Creating Batch Files

Batch files are simple lists of commands that you wish to have the computer complete for you when you click on the file you create. They are simple commands that with practice anyone can use to create batch files to automate any activity. Follow these guides to get started.

1. Click the start button in the lower left corner of your desktop 
2. Type CMD in the search box and press Enter. 
3. A black command box will appear. Use this box to test the commands you want in your batch file.

1. At the same time, also have a text editor open. Click the start button, go to All Programs, Accessories, and click on Notepad.
2. Using basic commands, write the processes you would like to execute in the notepad box. You can test your commands in the box command box to be sure you are accomplishing what you wish to accomplish.
3. Remember that a command with “/?” will give you the basic syntax for each command. Often there are samples of command use listed there as well.
4. Help is the command to type to see a list of all available commands.
	* 1. “Help /?” will show you how to use the commands.
			1. “Help dir” is an example
				1. Listed first is a sample of how the command is used.
				2. Each of the options and switches is next listed with an explanation of what each command will do.
5. In your notepad, type each command that you use in the order you want them—each on a separate line.
6. Save your file of instructions by clicking File, Save As, and giving your list a name and the “.bat” extension at the end. Be sure to select the location of you file before you press Save. Example: backup.bat

# Sample Batch Files

**Sample 1:** Here is a sample that makes a backup of all my files from my computer to my external hard drive. These lines could be copied to your notepad and saved. (Be sure to change the disk letter to the letter of your backup drive.)

cd\

cd users

cd Thomas Redd

xcopy \*.\* f:\home /e/s/d/y

**Sample 2:** Here are some samples of how I use this process to automate formatting a computer.

This file will copy and install programs on student machines.

s: is the shared drive and \* is the wild card—any character(s).

s:

cd mill\_creek

cd all\*student\*windows\*icons

MillCreekILE.msi

copy Windows\*Live\*Movie\*Maker.\* c:\Users\Public\Desktop /d/y

copy Student\*Help\*Files.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Excel\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*PowerPoint\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Publisher\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Word\*2010.\* c:\Users\Public\Desktop /d/y

copy Go\*Math\*7.\* c:\Users\Public\Desktop /d/y

copy SongsmithSetupAcademic.msi c:\\*.\*

copy atubecatcher.exe c:\\*.\*

cd MuseScore\*Program

MuseScore-1.3.exe

copy FluidR3\_FM.sf2 C:\Program\*Files\*(x86)\MuseScore\sound

cd..

cd.. changes directories up one level. Cd\ changes to the root of the current drive.

Pstory.msi

MicrosoftAutoCollageAcademicSetup.msi

cd..

cd\

cd mill\_creek

Some programs require a pause before they are executed. This makes the install ask us to press any key to continue.

cd all\*student\*windows\*icons

pause

atubecatcher.exe

pause

**Sample 3:** This file will copy and install programs on teacher machines.

s:

cd mill\_creek

cd all\*student\*windows\*icons

MillCreekILE.msi

copy Windows\*Live\*Movie\*Maker.\* c:\Users\Public\Desktop /d/y

copy MClass\*assessment.\* c:\Users\Public\Desktop /d/y

copy Student\*Help\*Files.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Excel\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*PowerPoint\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Publisher\*2010.\* c:\Users\Public\Desktop /d/y

copy Microsoft\*Word\*2010.\* c:\Users\Public\Desktop /d/y

copy Gradebook.\* c:\Users\Public\Desktop /d/y

copy Go\*Math\*7.\* c:\Users\Public\Desktop /d/y

copy SongsmithSetupAcademic.msi c:\\*.\*

copy atubecatcher.exe c:\\*.\*

copy Document\*Camera\*Avervison c:\\*.\* /d/y

copy Epson\*Camera\*software\*install c:\\*.\* /d/y

cd MuseScore\*Program

MuseScore-1.3.exe

copy FluidR3\_FM.sf2 C:\Program\*Files\*(x86)\MuseScore\sound

cd..

Pstory.msi

MicrosoftAutoCollageAcademicSetup.msi

cd..

cd\

cd NE-STS\_Shared

cd LanSchool\_v7.7.3.34

cd Windows

Student.msi

cd\

cd Mill\_Creek

cd staff

cd DT5

DTTeacher.exe

# File Setup

Before running these files on computers, you must first create and establish the main file folders on the shared drive of the school. Then when you want to execute the files, you simple navigate to where you have saved the batch file and double click the batch file. All the work is done automatically for each computer you update.

A list of the files in my “Install Icons” folder is listed below to help you understand what the batch files above are referring too.

atube.bat

 aTubeCatcher.exe

 continue.bat

<DIR> Epson Camera software install

 Excel 2013.lnk

 Go Math 7.lnk

 Gradebook.url

<DIR> Lanschool\_v7.7.4.18

 MClass assessment.lnk

<DIR> MuseScore Program

 Photo Story 3 for Windows.lnk

 PowerPoint 2013.lnk

 Publisher 2013.lnk

 Reading Minutes.url

 Road to Success.lnk

 Songsmith(Academic Edition).lnk

 songsmith.bat

 SongsmithSetupAcademic.msi

 Student Help Files.url

 Valley Crest Elementary.url

 ValleyCrestILE.msi

 Windows Live Movie Maker.lnk

 Word 2013.lnk

 20 File(s) 115,315,331 bytes

 3 Dir(s) 617,233,342,464 bytes free

# Batch Commands

Here is a complete list of all the commands that are available and a brief explanation of them. For more information on a specific command, type HELP command-name.

ASSOC Displays or modifies file extension associations.

ATTRIB Displays or changes file attributes.

BREAK Sets or clears extended CTRL+C checking.

BCDEDIT Sets properties in boot database to control boot loading.

CACLS Displays or modifies access control lists (ACLs) of files.

CALL Calls one batch program from another.

CD Displays the name of or changes the current directory.

CHCP Displays or sets the active code page number.

CHDIR Displays the name of or changes the current directory.

CHKDSK Checks a disk and displays a status report.

CHKNTFS Displays or modifies the checking of disk at boot time.

CLS Clears the screen.

CMD Starts a new instance of the Windows command interpreter.

COLOR Sets the default console foreground and background colors.

COMP Compares the contents of two files or sets of files.

COMPACT Displays or alters the compression of files on NTFS partitions.

CONVERT Converts FAT volumes to NTFS. You cannot convert the

current drive.

COPY Copies one or more files to another location.

DATE Displays or sets the date.

DEL Deletes one or more files.

DIR Displays a list of files and subdirectories in a directory.

DISKCOMP Compares the contents of two floppy disks.

DISKCOPY Copies the contents of one floppy disk to another.

DISKPART Displays or configures Disk Partition properties.

DOSKEY Edits command lines, recalls Windows commands, and

creates macros.

DRIVERQUERY Displays current device driver status and properties.

ECHO Displays messages, or turns command echoing on or off.

ENDLOCAL Ends localization of environment changes in a batch file.

ERASE Deletes one or more files.

EXIT Quits the CMD.EXE program (command interpreter).

FC Compares two files or sets of files, and displays the

differences between them.

FIND Searches for a text string in a file or files.

FINDSTR Searches for strings in files.

FOR Runs a specified command for each file in a set of files.

FORMAT Formats a disk for use with Windows.

FSUTIL Displays or configures the file system properties.

FTYPE Displays or modifies file types used in file extension

associations.

GOTO Directs the Windows command interpreter to a labeled line in

a batch program.

GPRESULT Displays Group Policy information for machine or user.

GRAFTABL Enables Windows to display an extended character set in

graphics mode.

HELP Provides Help information for Windows commands.

ICACLS Display, modify, backup, or restore ACLs for files and

directories.

IF Performs conditional processing in batch programs.

LABEL Creates, changes, or deletes the volume label of a disk.

MD Creates a directory.

MKDIR Creates a directory.

MKLINK Creates Symbolic Links and Hard Links

MODE Configures a system device.

MORE Displays output one screen at a time.

MOVE Moves one or more files from one directory to another

directory.

OPENFILES Displays files opened by remote users for a file share.

PATH Displays or sets a search path for executable files.

PAUSE Suspends processing of a batch file and displays a message.

POPD Restores the previous value of the current directory saved by

PUSHD.

PRINT Prints a text file.

PROMPT Changes the Windows command prompt.

PUSHD Saves the current directory then changes it.

RD Removes a directory.

RECOVER Recovers readable information from a bad or defective disk.

REM Records comments (remarks) in batch files or CONFIG.SYS.

REN Renames a file or files.

RENAME Renames a file or files.

REPLACE Replaces files.

RMDIR Removes a directory.

ROBOCOPY Advanced utility to copy files and directory trees

SET Displays, sets, or removes Windows environment variables.

SETLOCAL Begins localization of environment changes in a batch file.

SC Displays or configures services (background processes).

SCHTASKS Schedules commands and programs to run on a computer.

SHIFT Shifts the position of replaceable parameters in batch files.

SHUTDOWN Allows proper local or remote shutdown of machine.

SORT Sorts input.

START Starts a separate window to run a specified program or command.

SUBST Associates a path with a drive letter.

SYSTEMINFO Displays machine specific properties and configuration.

TASKLIST Displays all currently running tasks including services.

TASKKILL Kill or stop a running process or application.

TIME Displays or sets the system time.

TITLE Sets the window title for a CMD.EXE session.

TREE Graphically displays the directory structure of a drive or

 path.

TYPE Displays the contents of a text file.

VER Displays the Windows version.

VERIFY Tells Windows whether to verify that your files are written

correctly to a disk.

VOL Displays a disk volume label and serial number.

XCOPY Copies files and directory trees.

WMIC Displays WMI information inside interactive command shell.