# IT Essentials 5.0

# 5.3.4.8 Lab - Managing System Files with Built-in Utilities in Windows XP

## Introduction

Print and complete this lab.

In this lab, you will use Windows built-in utilities to gather information about the system and to troubleshoot system resources.

### **Recommended Equipment**

The following equipment is required for this exercise:

• A computer running Windows XP

### Step 1

Log on to the computer as an administrator.

Open the command prompt by clicking **Start > Run >** type **cmd >** click **OK**.



What is the drive path shown?

Type **help** and press **Enter**.

C:\WIN	IDOWS\system32\cmd.exe	- 🗆 ×
	t Windows XP [Version 5.1.2600] right 1985-2001 Microsoft Corp.	-
C:\Docume For more ASSOC AT ATTRIB BREAK CACLS CALL CD CHCP CHCP CHDIR CHKDSK	ents and Settings\John>help information on a specific command, type HELP command-name Displays or modifies file extension associations. Schedules commands and programs to run on a computer. Displays or changes file attributes. Sets or clears extended CTRL+C checking. Displays or modifies access control lists (ACLs) of files. Calls one batch program from another. Displays the name of or changes the current directory. Displays or sets the active code page number. Displays the name of or changes the current directory. Checks a disk and displays a status report.	
CHKNTFS CLS CMD COLOR COMP COMPACT CONVERT COPY DATE	Displays or modifies the checking of disk at boot time. Clears the screen. Starts a new instance of the Windows command interpreter. Sets the default console foreground and background colors. Compares the contents of two files or sets of files. Displays or alters the compression of files on NIFS partitions. Converts FAT volumes to NIFS. You cannot convert the current drive. Copies one or more files to another location. Displays or sets the date.	
DISKCOPY DOSKEY ECHO	Deletes one or more files. Displays a list of files and subdirectories in a directory. Compares the contents of two floppy disks. Copies the contents of one floppy disk to another. Edits command lines, recalls Windows commands, and creates macros. Displays messages, or turns command echoing on or off. Ends localization of environment changes in a batch file. Deletes one or more files. Quits the CMD.EXE program (command interpreter). Compares two files or sets of files, and displays the differences	
FIND FINDSTR FOR FORMAT	between them. Searches for a text string in a file or files. Searches for strings in files. Runs a specified command for each file in a set of files. Formats a disk for use with Windows.	•

What is the command to change directory?

What is the command to display the contents in a directory?

Type **cd** .. and press **Enter**.



What is the drive path shown?

Change back to original drive path. Example: Type **cd John** and press **Enter**.

What is the drive path shown?

Type dir /? and press Enter.

If asked, press any key to continue.

🔤 C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\John>dir /? Displays a list of files and subdirectories in a directory.	
DIR [drive:][path][filename] [/A[[:]attributes]] [/B] [/C] [/D] [/L] [/N] [/O[[:]sortorder]] [/P] [/Q] [/S] [/T[[:]timefield]] [/W] [/X] [/4]	
[drive:][path][filename] Specifies drive, directory, and/or files to list.	
<ul> <li>A Displays files with specified attributes.</li> <li>attributes D Directories R Read-only files</li> <li>attributes H Hidden files A Files ready for archiving S System files - Prefix meaning not</li> <li>B Uses bare format (no heading information or summary).</li> <li>C Display the thousand separator in file sizes. This is the default. Use /-C to disable display of separator.</li> <li>M Same as wide but files are list sorted by column.</li> <li>L Uses lowercase.</li> <li>M New long list format where filenames are on the far right.</li> <li>I List by files in sorted order.</li> <li>sortorder N By name (alphabetic) S By size (smallest first)</li> <li>E By extension (alphabetic) D By date/time (oldest first)</li> <li>G Group directories first - Prefix to reverse order</li> <li>P Pauses after each screenful of information.</li> <li>M Uses which time field displayed or used for sorting</li> <li>timefield Coration</li> <li>A Last Written</li> <li>W Last Written</li> <li>W Uses which list format.</li> <li>X This displays the short names generated for non-8dot3 file names. The format is that of /N with the short name inserted before the long name. If no short name is present, blanks are displayed in its place.</li> <li>M Suitches may be preset in the DIRCMD environment variable. Override</li> </ul>	
preset switches by prefixing any switch with - (hyphen)for example, /-W. C:\Documents and Settings\John)	
	-

Which switch displays a wide list format?

Type dir and press Enter.

Type **dir /w** and press **Enter**.

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\John>dir Volume in drive C is BootDisk Volume Serial Number is F4C8-A421	
Directory of C:\Documents and Settings\John	
07/23/2009       07:10 AM       (DIR)          07/23/2009       07:10 AM       (DIR)          09/23/2008       03:39 PM       (DIR)          09/23/2008       03:42 PM       (DIR)          10/21/2008       05:54 AM       314 becker.robots.ini         09/23/2009       07:44 PM       (DIR)       Desktop         02/04/2009       07:23 PM       (DIR)       Favorites         06/04/2009       07:23 PM       (DIR)       Favorites         06/04/2009       07:24 PM       (DIR)       M         02/10/2008       05:12 PM       (DIR)       RNT         02/20/2009       07:31 AM       (DIR)       Start Menu         01/23/2009       07:32 AM       (DIR)       WebEx         11       File(s)       314 bytes       11	
C:\Documents and Settings\John>dir /w Volume in drive C is BootDisk Volume Serial Number is F4C8-A421	
Directory of C:\Documents and Settings\John	
[.] [.nbi] [.netbeans-registration] becker.robots.ini [Desktop] [Favorites] [My Documents] [NNT] [Start Menu] [temp] [WebEx] 1 File(s) 314 bytes 11 Dir(s) 68,156,264,448 bytes free	
C:\Documents and Settings\John>	-

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What is the difference between these two commands?

Type VOL.

What volume is drive C in?

Close the Command prompt window.

# Step 2

Open System Information by clicking Start > Run > type msinfo32 > click OK.

Click the **plus sign** next to Hardware Resources, Components, and Software Environment. Expand the window so you can see all the content.

System Information e Edit View Tools Help				
ystem Summary				
ystem Summary Hardware Resources	^	Item	Value	
<ul> <li>Hardware Hesources</li> <li>Conflicts/Sharing</li> </ul>		OS Name	Microsoft Windows XP Professional	
- DMA		Version DS Manufacturer	5.1.2600 Service Pack 2 Build 2600 Microsoft Corporation	
- Forced Hardware		System Name	JOHN-DESKTOP	
- Forced Hardware		System Manufacturer	To Be Filled By O.E.M.	
		System Model	To Be Filled By O.E.M.	
IRQs		System Type	X86-based PC	
Memory		Processor	x86 Family 15 Model 3 Stepping 4 GenuineIntel ~2998 Mhz	
Components		Processor	x86 Family 15 Model 3 Stepping 4 GenuineIntel ~2998 Mhz	
Multimedia		BIOS Version/Date	American Megatrends Inc. 080009, 9/1/2004 2.3	
CD-ROM		SMBIOS Version Windows Directory	2.3 C:WINDOWS	
- Sound Device		System Directory	C:\wiNDOWS C:\wiNDOWS\system32	
Display		Boot Device	\Device\HarddiskVolume1	
Infrared		Locale	United States	
🖻 Input		Hardware Abstraction Layer	Version = "5.1.2600.2180 (xpsp_sp2_rtm.040803-2158)"	
- Keyboard		User Name	JOHN-DESKTOP John	
- Pointing Device		Time Zone	Pacific Daylight Time	
Modem		Total Physical Memory	2,048.00 MB	
Network		Available Physical Memory Total Virtual Memory	1.30 GB 2.00 GB	
- Adapter		Available Virtual Memory	2.00 GB	
- Protocol		Page File Space	3.85 GB	
- WinSock		Page File	C:\pagefile.sys	
Ports				
- Serial				
Parallel				
🚍 Storage				
- Drives				
- Disks				
- SCSI				
- IDE				
Printing				
- Problem Devices				
USB				
Software Environment				
- System Drivers				
- Signed Drivers				
- Environment Variables				
- Print Jobs				
- Network Connections				
Loaded Modules				
Services				
Program Groups				
- Startup Programs				
OLE Registration				
Windows Error Reporting	~			
Find what:		0	Find Close Find	
Search selecte	00000000	ory only 📃 Search category		

Under the System Summary heading locate and list the following: Processor

**BIOS Version/Date** 

**Total Physical Memory** 

Under the Hardware Resources heading locate and list the following: DMA channels and the device using the resources.

I/O address range for these devices: Printer Port (LPT1)

Communications Port (COM1)

Communications Port (COM2)

IRQ address for these devices: System timer

Communications Port (COM1)

Communications Port (COM2)

Under the Components heading and Software heading look around to see what information is provided in these areas.

Close the System Information window.

### Step 3

Open System Configuration Utility by clicking **Start > Run >** type **msconfig >** click **OK**. **Note**: It is very important that you do not make any changes in this utility without instructor permission.

📕 System Configu	ration Utility 🛛 🗙
General SYSTEM.IN	II WIN.INI BOOT.INI Services Startup
Startup Selection -	
💿 Normal Startu	p - load all device drivers and services
🔘 Diagnostic Sta	artup - load basic devices and services only
O Selective Star	tup
Process	SYSTEM.INI File
Process	WIN.INI File
🗹 Load Sy	/stem Services
🗹 Load St	artup Items
🖲 Use Ori	ginal BOOT.INI 🔷 Use Modified BOOT.INI
	Launch System Restore Expand File
	OK Cancel Apply Help

Click the General tab if not all ready active.

What are the startup options?

Click the SYSTEM.INI, WIN.INI, and BOOT.INI tabs. These tab are for modifying these files.

Click the Services tab. This tab lists the computers services and there status.

Service	Essential	Manufacturer	Status	1
🗹 Application Layer Gatew		Microsoft Corporation	Running	
🗹 Application Management		Microsoft Corporation	Stopped	-
ASP.NET State Service		Microsoft Corporation	Stopped	
🗹 Ati HotKey Poller		ATI Technologies Inc.	Running	
🗹 Windows Audio		Microsoft Corporation	Running	
🗹 Background Intelligent T		Microsoft Corporation	Stopped	
Computer Browser		Microsoft Corporation	Running	
Indexing Service		Microsoft Corporation	Stopped	
🗹 .NET Runtime Optimizati		Microsoft Corporation	Stopped	
COM+ System Application		Microsoft Corporation	Stopped	
🗹 Cryptographic Services		Microsoft Corporation	Running	
DCOM Server Process La	Yes	Microsoft Corporation	Runnina	1
<			>	

Can you enable and disable services at this tab?

Click the **Startup** tab. This tab lists the programs that are automatically loaded every time you turn on your computer.

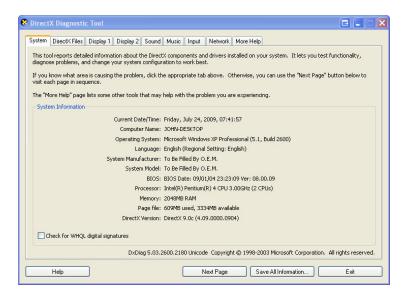
Click **Cancel** to close the System Configuration Utility window.

#### Step 4

Open DirectX Diagnostic Tool by clicking **Start > Run >** type **dxdiag >** click **OK**.

If you are asked to have DirectX check driver signatures click No.

**Note**: When DirectX Diagnostic Tool first opens it may take a minute to load all information. Your DirectX Diagnostic Tool may not appear exactly as shown in this lab.



Make sure the System tab is active.

What does this tool report?

Click **Next Page** until you are at the DirectX Files tab.

A list of DirectX files is listed.

Click Next Page until you are at the Display tab.

Click Test DirectDraw.

Device	Drivers
Name: RADEON 9800 PRO	Main Driver: ati2dvag.dll
Manufacturer: ATI Technologies Inc.	Version: 6.14.0010.6601 (English)
Chip Type: RADEON 9800 PRO AGP (0x4E48)	Date: 2/21/2006 21:46:48
DAC Type: Internal DAC(400MHz)	WHQL Logo'd: n/a
Approx. Total Memory: 128.0 MB	Mini VDD: ati2mtag.sys
Current Display Mode: 1600 × 1200 (32 bit) (60Hz)	VDD: n/a
Monitor: Plug and Play Monitor	DDI Version: 9 (or higher)
Direct3D Acceleration: Enabled Disable AGP Texture Acceleration: Enabled Disable	Test Direct3D
Notes  No problems found.	
To test DirectDraw functionality, click the "Test DirectDraw" button a     To test Direct3D functionality, click the "Test Direct3D" button above	

Follow the rest of the instruction as the test progresses.

Place a check mark next to every test that your computer passes.

alternating black and white rectangles \_\_\_\_\_

bouncing white box in a black box

fullscreen bouncing white box \_\_\_\_

Click Test Direct3D.

Follow the rest of the instruction as the test progresses.

DirectX 7 interface test: what did you see?

DirectX 8 interface test: what did you see?

DirectX 9 interface test: what did you see?

Click Next Page until you are at the Sound tab.

If you have headphones, click **Test DirextSound**. If you have no headphones, move to the next instruction.

ystem DirectX Files Display 1 Display 2 Sound Music Input Network	More Help
Device	Drivers
Name: SoundMAX Digital Audio	Name: smwdm.sys
Device ID: PCI\VEN_8086DEV_24D55UB5Y5_80F31043REV_0	Version: 5.12.0001.3630 (English)
Manufacturer ID: 1	Date: 6/2/2003 14:42:14
Product ID: 100	WHQL Logo'd: n/a
Type: WDM	Other Files:
Default Device: Yes	Provider: Analog Devices
Hardware Sound Acceleration Level:	Test DirectSound
Notes  To test DirectSound functionality, click the "Test DirectSound" button above	
To test Directsound runctionality, click the Test Directsound button abov     No problems found.	re.

Did you hear the sound effects in the audio test?

Click Next Page until you are at the Music tab.

If you have headphones, click **Test DirextMusic**. If you have no headphones, move to the next instruction.

Description	Туре	Kernel Mode	In/Out	Supports DLS	External	Default Port
Microsoft Synthesizer	Software	No	Output	Yes	No	Yes
SoundMAX Digital Audio	Software Hardware	Yes	Output	Yes No	No No	No No
Microsoft MIDI Mapper [Emulated] SoundMAX WDM MIDI [Emulated]	Hardware	No No	Output Output	No	NO	No
Microsoft GS Wavetable SW Synth [Emulated]		No	Output	No	No	No
Disable		Microsoft MIDI / SoundMAX WDN				~
				Test DirectMus		
otes						

Did you hear music playing?

Click Next Page until you are on the Input tab.

What information is listed on this page?

Click Next Page until you are on the Network tab.

What information is listed on this page?

Click **Next Page** until you are on the More Help tab.

Click on the various buttons to see what is provided.

What tools are provided on this page?

Click Exit.