

## 5.4.8 Optional Lab: Managing System Files with Built-in Utilities in Windows 7

### 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. You will also learn how to export and import registry setting.

### Recommended Equipment

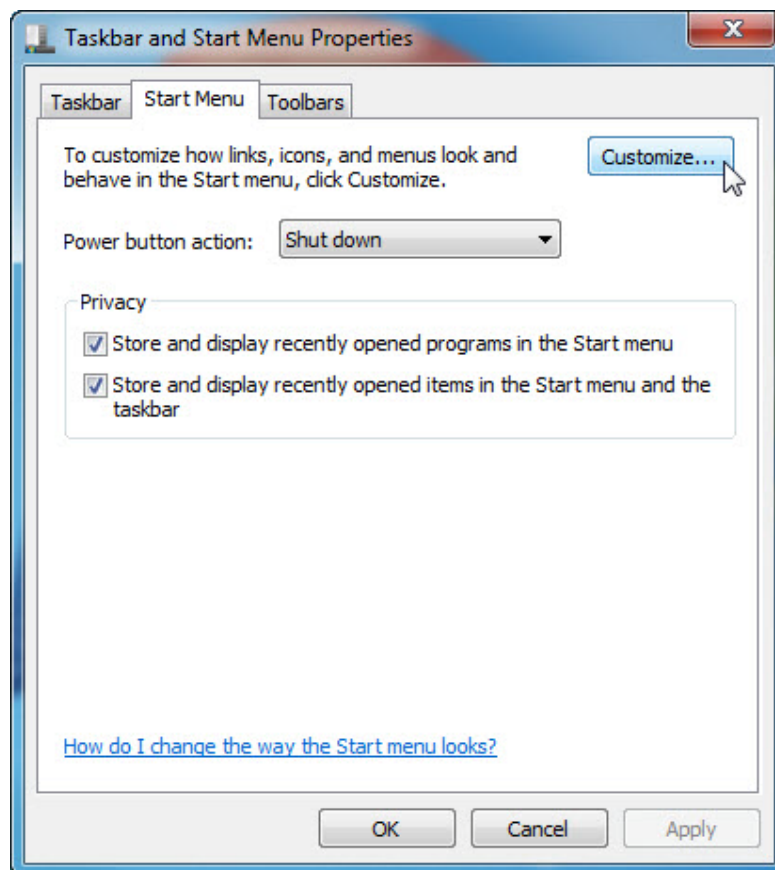
The following equipment is required for this exercise:

- A computer running Windows 7

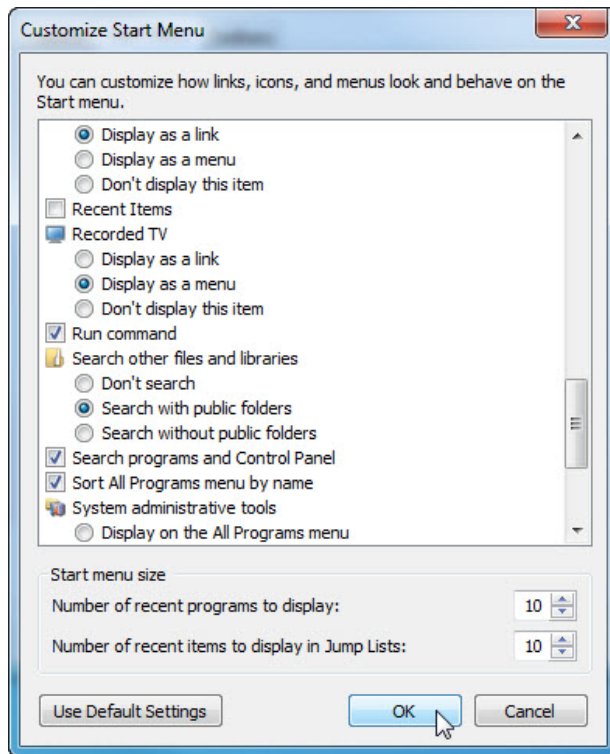
### Step 1

Log on to the computer as an administrator.

To add Run to the Start menu right-click **Start > Properties**. Select **Start Menu** tab then click **Customize....**

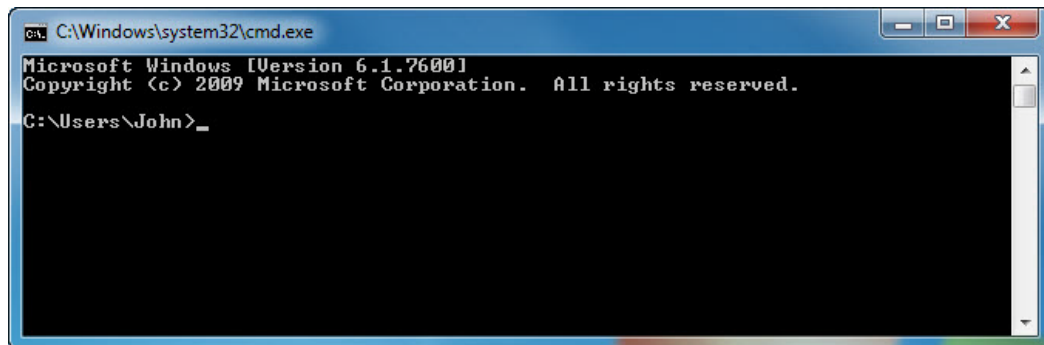


Scroll down until you see the Run command. Click in the box next to Run command. Click **OK**.



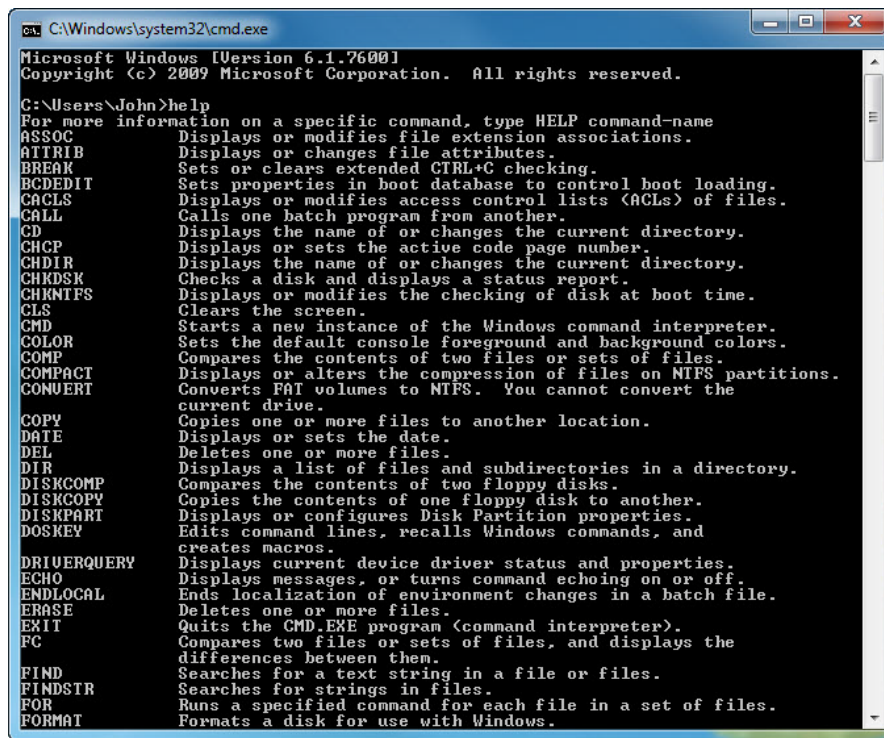
Click **Apply** > **OK** to close the “Taskbar and Start Menu Properties” window.

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



What is the drive path shown?

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



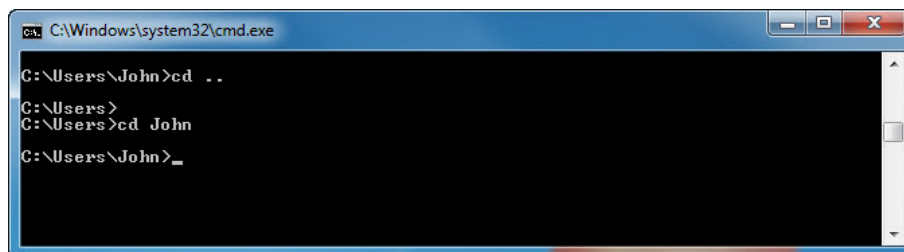
```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\John>help
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.
```

What is the command to change directory?

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

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



```
C:\Windows\system32\cmd.exe

C:\Users\John>cd ..
C:\Users>
C:\Users>cd John
C:\Users\John>_
```

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:\Users\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] [/R] [/S] [/T[:timefield]] [/W] [/X] [/4]

[drive:][path][filename]
    Specifies drive, directory, and/or files to list.

/A      Displays files with specified attributes.
attributes  D Directories          R Read-only files
             H Hidden files        A Files ready for archiving
             S System files        I Not content indexed files
             L Reparse Points      - Prefix meaning not

/B      Uses bare format (no heading information or summary).
/C      Display the thousand separator in file sizes. This is the
        default. Use /-C to disable display of separator.
/D      Same as wide but files are list sorted by column.
/L      Uses lowercase.
/N      New long list format where filenames are on the far right.
/O      List by files in sorted order.
sortorder  N By name (alphabetic)    S By size (smallest first)
            E By extension (alphabetic) D By date/time (oldest first)
            G Group directories first - Prefix to reverse order

/P      Pauses after each screenful of information.
/Q      Display the owner of the file.
/R      Display alternate data streams of the file.
/S      Displays files in specified directory and all subdirectories.
/T      Controls which time field displayed or used for sorting
timefield  C Creation
            A Last Access
            W Last Written

/W      Uses wide list format.
        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.
/X      Displays four-digit years

/4      Displays four-digit years

Switches may be preset in the DIRCMD environment variable. Override
preset switches by prefixing any switch with - (hyphen)--for example, /-W.

C:\Users\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:\Users\John>dir
Volume in drive C has no label.
Volume Serial Number is 347C-0C96

Directory of C:\Users\John

11/06/2010  12:30 AM    <DIR>          .
11/06/2010  12:30 AM    <DIR>          ..
11/06/2010  12:30 AM    <DIR>          Contacts
11/06/2010  12:30 AM    <DIR>          Desktop
11/06/2010  12:31 AM    <DIR>          Documents
11/06/2010  12:30 AM    <DIR>          Downloads
11/06/2010  12:30 AM    <DIR>          Favorites
11/06/2010  12:30 AM    <DIR>          Links
11/06/2010  12:30 AM    <DIR>          Music
11/06/2010  12:30 AM    <DIR>          Pictures
11/06/2010  12:30 AM    <DIR>          Saved Games
11/06/2010  12:30 AM    <DIR>          Searches
11/06/2010  12:30 AM    <DIR>          Videos
               0 File(s)                0 bytes
               13 Dir(s)  59,830,734,848 bytes free

C:\Users\John>dir /w
Volume in drive C has no label.
Volume Serial Number is 347C-0C96

Directory of C:\Users\John

[.]          [..]          [Contacts]    [Desktop]    [Documents]
[Downloads]  [Favorites]  [Links]       [Music]      [Pictures]
[Saved Games] [Searches]   [Videos]
               0 File(s)                0 bytes
               13 Dir(s)  59,830,734,848 bytes free

C:\Users\John>_

```

What is the difference between these two commands?

Type **VOL.**

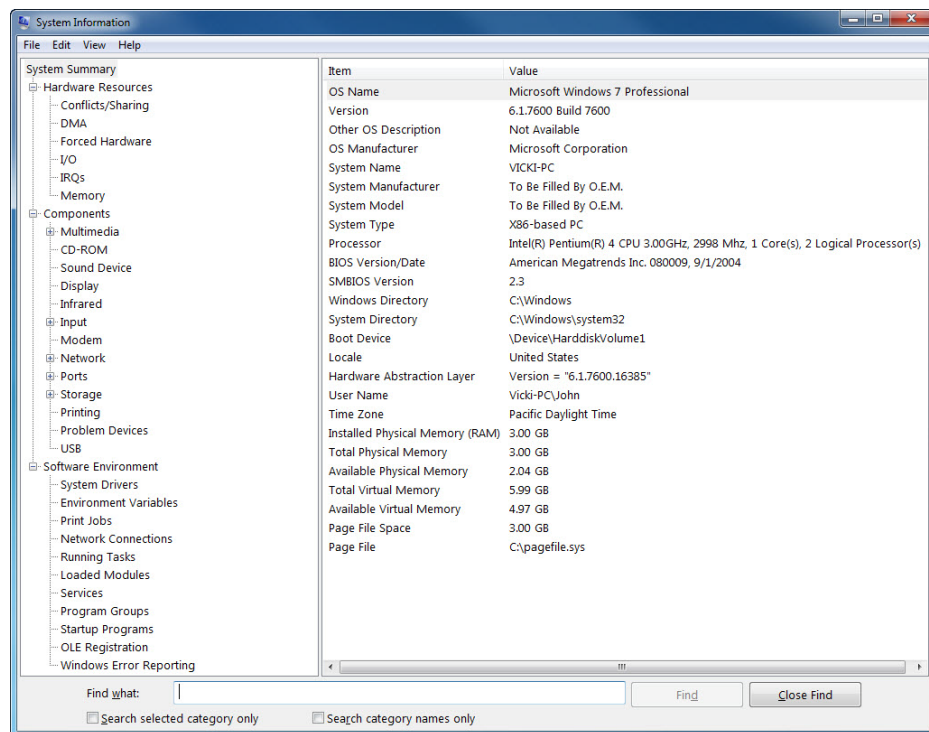
What is the volume name for drive C?

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.



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)

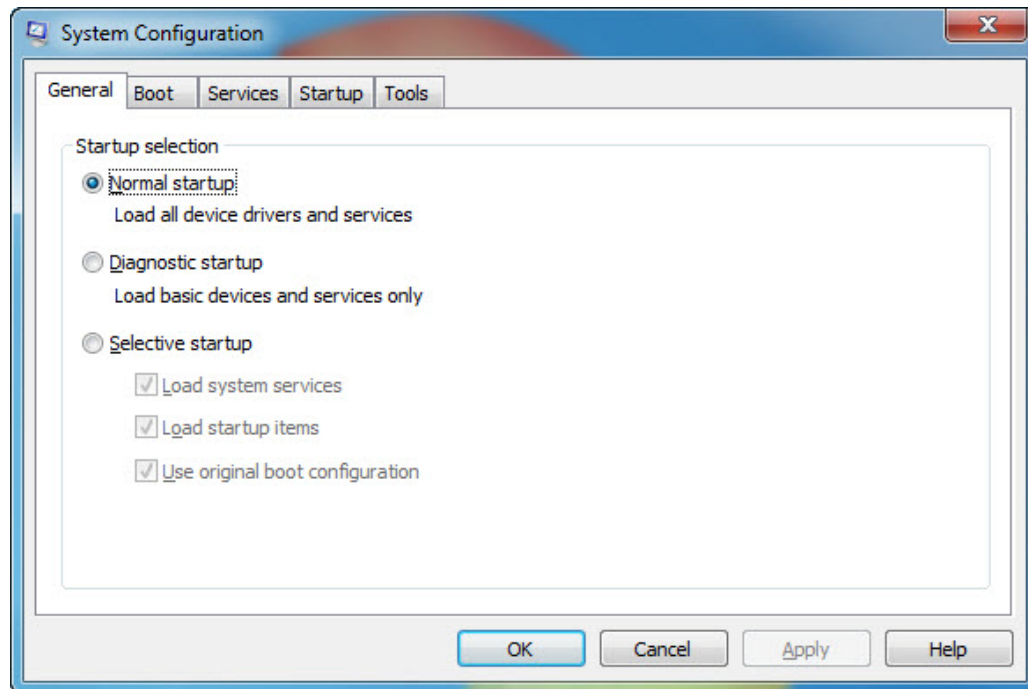
Under the Components heading and Software heading look around to see what information is provided in these areas.

Close the System Information window.

### Step 3

Open System Configuration 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.

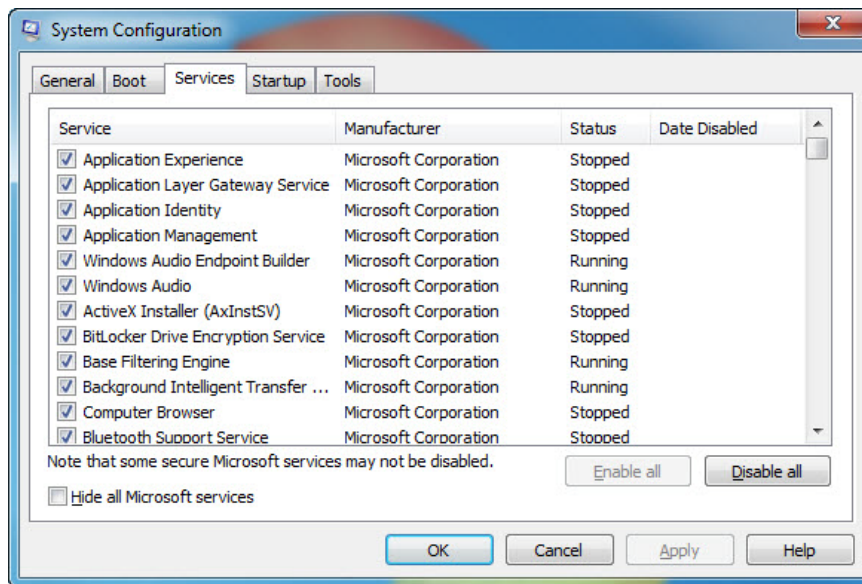


Click the **General** tab if it is not already active.  
What are the startup options?

Click the **Boot** tab. This tab is for modifying boot options.

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

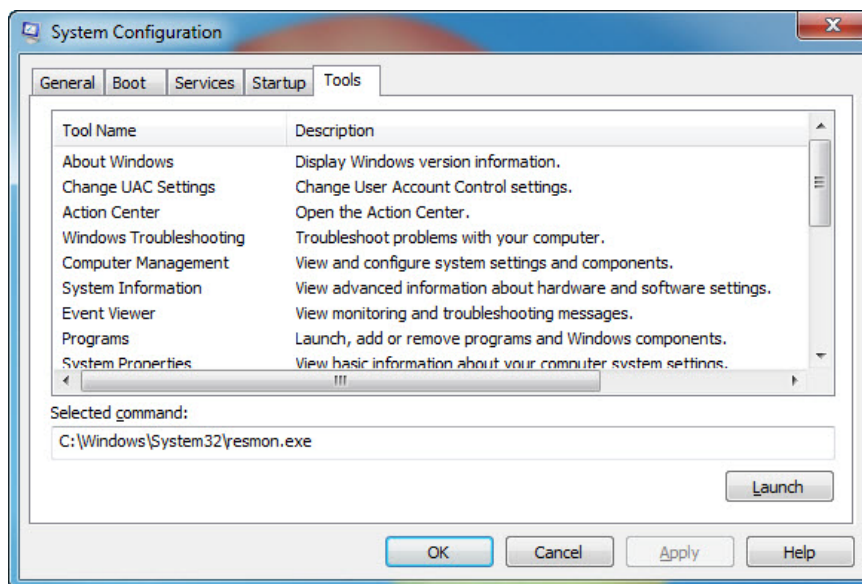




Can you enable and disable services at this tab?

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

Click the **Tools** tab.



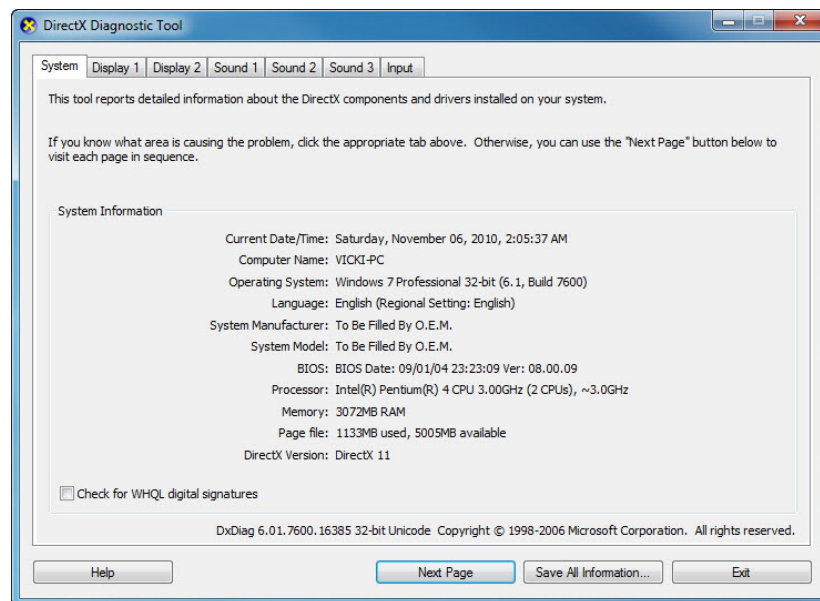
What can you do in this tab?

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

#### Step 4

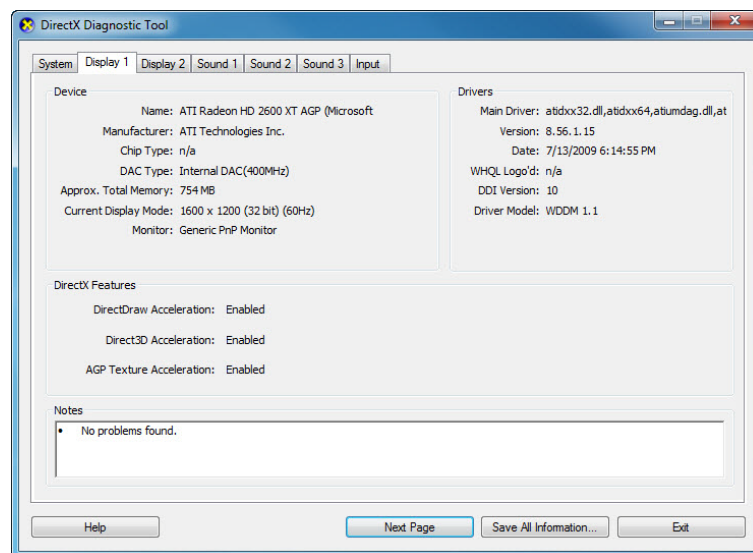
Open the DirectX Diagnostic Tool by clicking **Start > Run > type dxdiag > click OK**. If you are asked to have DirectX check driver signatures click **No**.

Note: When the 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?

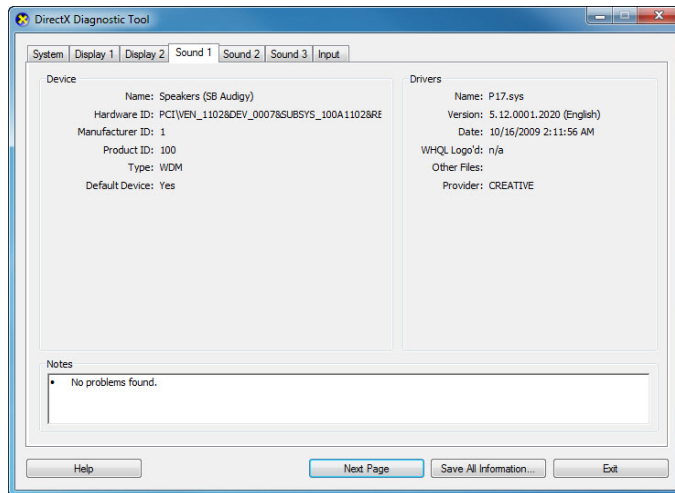
Click **Next Page** until you are at the Display tab.



What information is listed on this page?

Click **Next Page** until you are at the Sound tab.





What information is listed on this page?

Click **Next Page** until you are on the Input tab.  
What information is listed on this page?

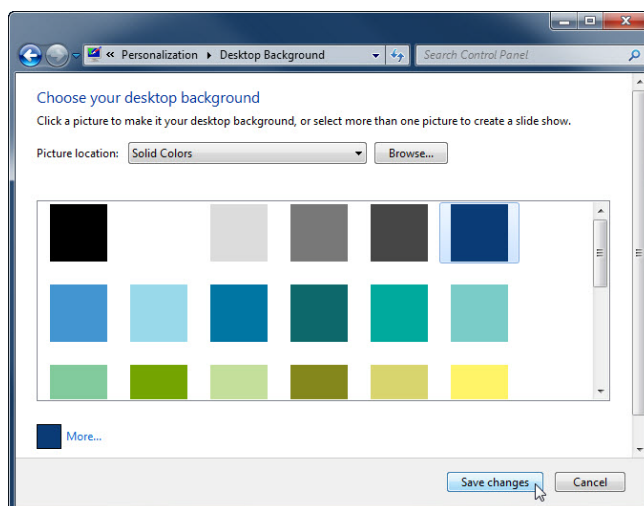
Click **Exit**.

## Step 5

Open the “Choose your desktop background” page in Personalize appearance and sounds by right-clicking the **desktop** > **Personalize** > **Desktop Background**.

What is the Background picture?

Click the **Picture location** drop-down button and select **Solid Colors**. Select a **blue** color.  
Click **Save changes**.



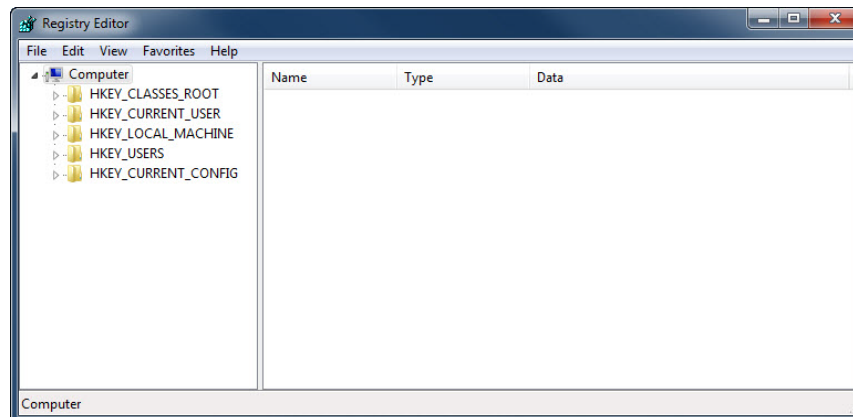
The computer screen should now have a blue background. If not ask the instructor for assistance.

## Step 6

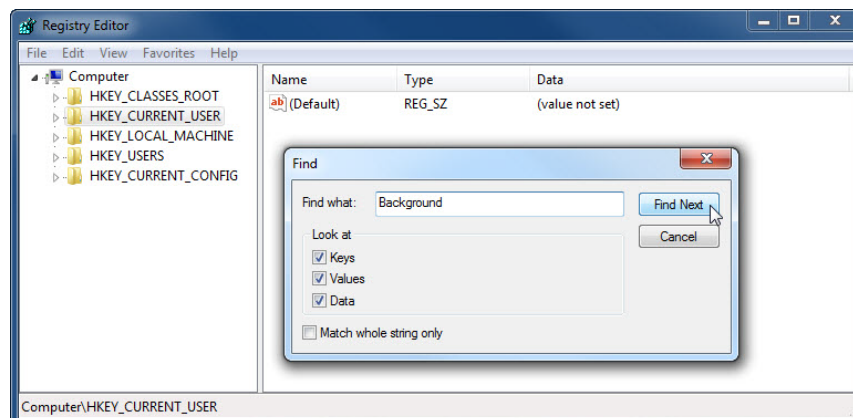
Open the Registry Editor by clicking **Start > Run > type regedit > click OK**.

If the “User Account Control” window appears click **Yes**.

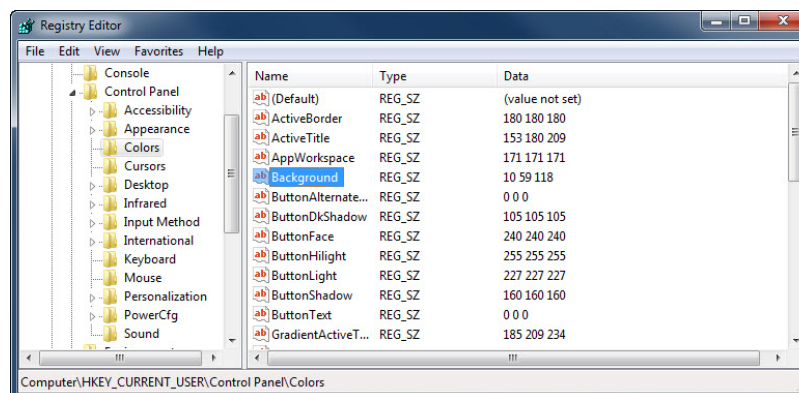
Note: Do not make any changes in the Registry Editor without instructor permission.



Click the **HKEY\_CURRENT\_USER** icon. To search for the desktop Background key click **Edit > Find > type Background > click Find Next**.



The Background value is located. Leave this window open.



In which folder is the Background located?

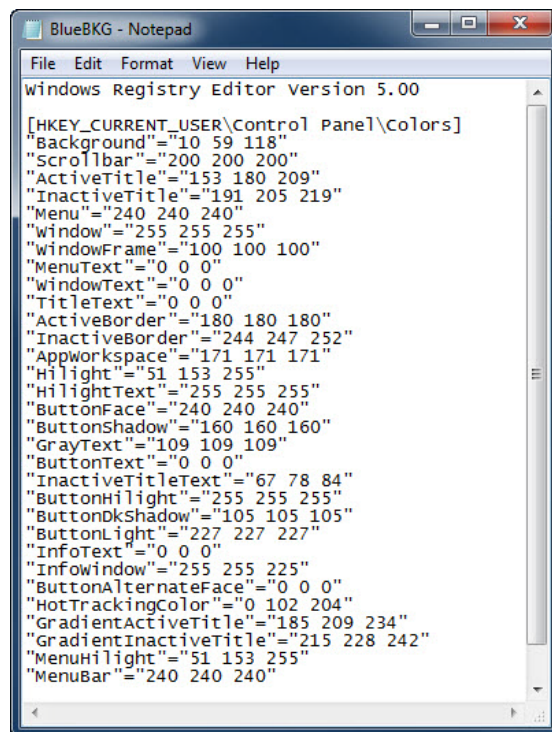
What is the data value of the Background (hint – it has three numbers that correspond to red, green, and blue)? Answers may vary based on the shade of blue selected in Choose your desktop background.

## Step 7

We will now export the **HKEY\_CURRENT\_USER\Control Panel\Colors** folder. In the left pane, click the **Colors** folder.

Click **File > Export**. Save the file to the Desktop with the name **BlueBKG**.

At the desktop, right-click the **BlueBKG.reg** icon > **Edit**.



What is the data value of the Background? Answers may vary based on the shade of blue selected in Display Properties.

Close the **BlueBKG.reg – Notepad** window.

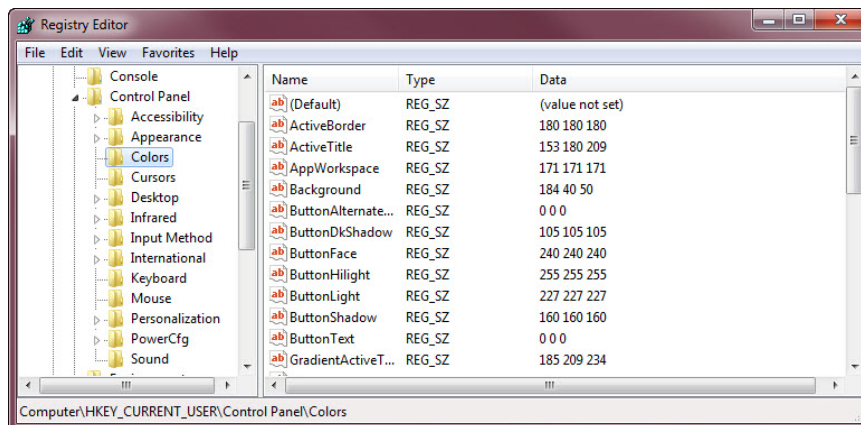
## Step 8

Open the "Choose your desktop background" page in Personalize appearance and sounds by right-clicking the **desktop > Personalize > Desktop Background**. Click the **Location** drop-down button and select **Solid Colors**. Select a **red** color. Click **Save changes**.

In a few seconds, the desktop will turn to red.

Click the Registry Editor window so it is activated.

On your keyboard press **F5** to refresh the Registry Editor window.



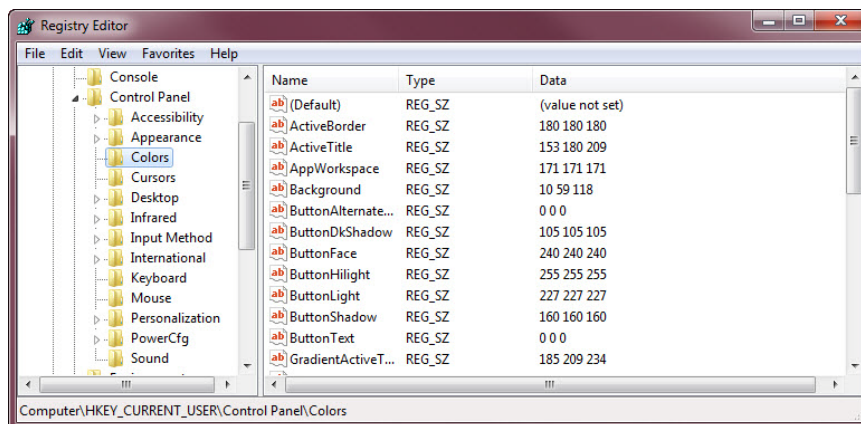
What is the data value of the Background? Answers may vary based on the shade of red selected in Display Properties.

## Step 9

We will now import **BlueBKG.reg** file.

Click the Registry Editor window so it is activated.

Click **File > Import**. Locate and click the **BlueBKG.reg** icon then click **Open**.  
Click **OK**.



Click the Registry Editor window so it is activated.

What is the data value of the Background? Answers may vary based on the shade of blue selected in Display Properties.

What is the color of the desktop?

Restart the computer.

What is the color of the desktop?

Reset Display Properties Background to the original settings (hint – see Step 5).