

5.4.2 Lab: Install Windows XP

Introduction

Print and complete this lab.

In this lab, you will install the Windows XP Professional operating system.

Recommended Equipment

The following equipment is required for this exercise:

- A computer with a blank hard disk drive.
- Windows XP Professional installation CD.

Step 1

Insert the Windows XP installation CD into the CD-ROM drive.

When the system starts up, watch for the message "Press any key to boot from CD..".

If the message appears, press any key on the keyboard to boot the system from the CD. The system will now begin inspecting the hardware configuration. If the message does not appear, the hard drive is empty and the system will now begin inspecting the hardware configuration.



Step 2

The Windows XP Professional Setup screen appears. During this part of setup, the mouse will not work, so you must use the keyboard. On the Welcome to Setup page, press **Enter** to continue.

```
Windows XP Professional Setup

Welcome to Setup.

This portion of the Setup program prepares Microsoft(R)
Windows(R) XP to run on your computer.

• To set up Windows XP now, press ENTER.
• To repair a Windows XP installation using
  Recovery Console, press R.
• To quit Setup without installing Windows XP, press F3.

ENTER=Continue R=Repair F3=Quit
```

Step 3

The "Windows XP Licensing Agreement" page appears. Press the **Page Down** key to scroll to the bottom of the license agreement. Press the **F8** key to agree to the license.

```
Windows XP Licensing Agreement

END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE
WINDOWS XP PROFESSIONAL EDITION SERVICE PACK 2

IMPORTANT-READ CAREFULLY:
This End-User License Agreement ("EULA") is a legal agreement
between you (either an individual or a single entity) and
Microsoft Corporation or one of its affiliates ("Microsoft")
for the Microsoft software that accompanies this EULA, which
includes computer software and may include associated media,
printed materials, "online" or electronic documentation, and
Internet-based services ("Software"). An amendment or
addendum to this EULA may accompany the Software.
YOU AGREE TO BE BOUND BY THE TERMS OF THIS
EULA BY INSTALLING, COPYING, OR OTHERWISE
USING THE SOFTWARE. IF YOU DO NOT AGREE,
DO NOT INSTALL, COPY, OR USE THE SOFTWARE;
YOU MAY RETURN IT TO YOUR PLACE OF PURCHASE
FOR A FULL REFUND, IF APPLICABLE.

1. GRANT OF LICENSE.
Microsoft grants you the following rights provided that
you comply with all terms and conditions of this EULA:

1.1 Installation and use. You may install, use, access,
display and run one copy of the Software on a single
computer, such as a workstation, terminal or other
device ("Workstation Computer"). The Software may not

F8=I agree ESC=I do not agree PAGE DOWN=Next Page
```

Step 4

Select the hard drive or partition on which Windows XP will be installed. Press **Enter** to select “Unpartitioned space”, which is the default setting.

```
Windows XP Professional Setup

The following list shows the existing partitions and
unpartitioned space on this computer.

Use the UP and DOWN ARROW keys to select an item in the list.

• To set up Windows XP on the selected item, press ENTER.
• To create a partition in the unpartitioned space, press C.
• To delete the selected partition, press D.

16379 MB Disk 0 at Id 0 on bus 0 on atapi [MBR]
  Unpartitioned space          16379 MB

ENTER=Install  C=Create Partition  F3=Quit
```

Step 5

Press **Enter** again to select “Format the partition using the NTFS file system”, which is the default setting.

```
Windows XP Professional Setup

A new partition for Windows XP has been created on
16379 MB Disk 0 at Id 0 on bus 0 on atapi [MBR].

This partition must now be formatted.

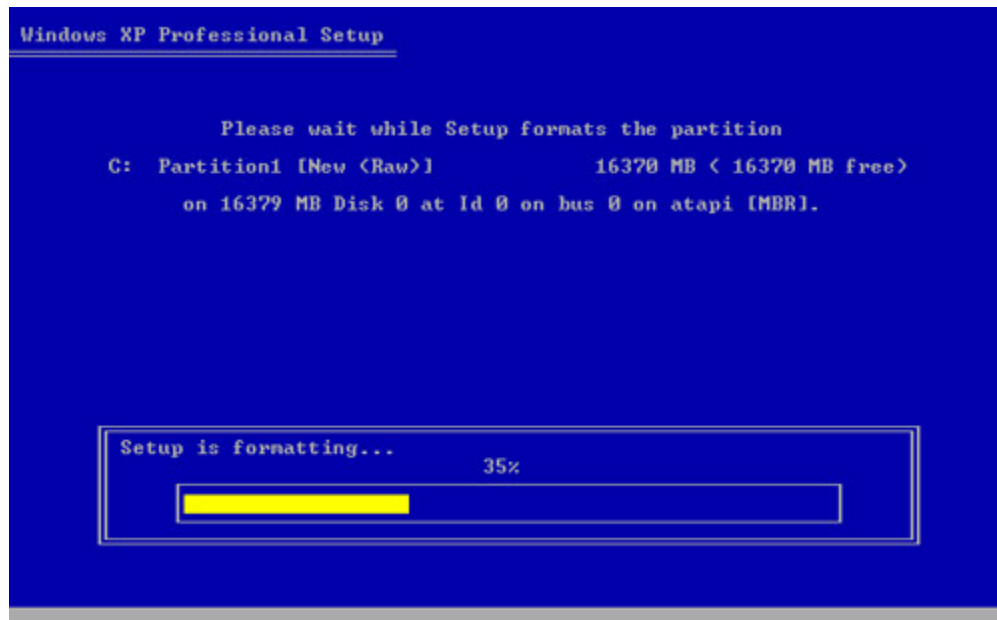
From the list below, select a file system for the new partition.
Use the UP and DOWN ARROW keys to select the file system you want,
and then press ENTER.

If you want to select a different partition for Windows XP,
press ESC.

Format the partition using the NTFS file system (Quick)
Format the partition using the FAT file system (Quick)
Format the partition using the NTFS file system
Format the partition using the FAT file system

ENTER=Continue  ESC=Cancel
```

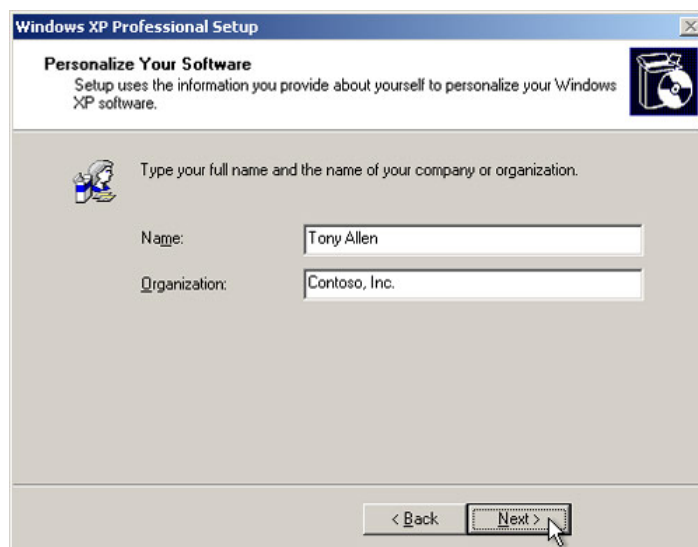
Windows XP Professional Setup erases the hard disk drive, formats the hard disk drive, and copies the setup files from the installation CD to the hard disk drive. This process should take between 20 and 30 minutes to complete.



Step 6

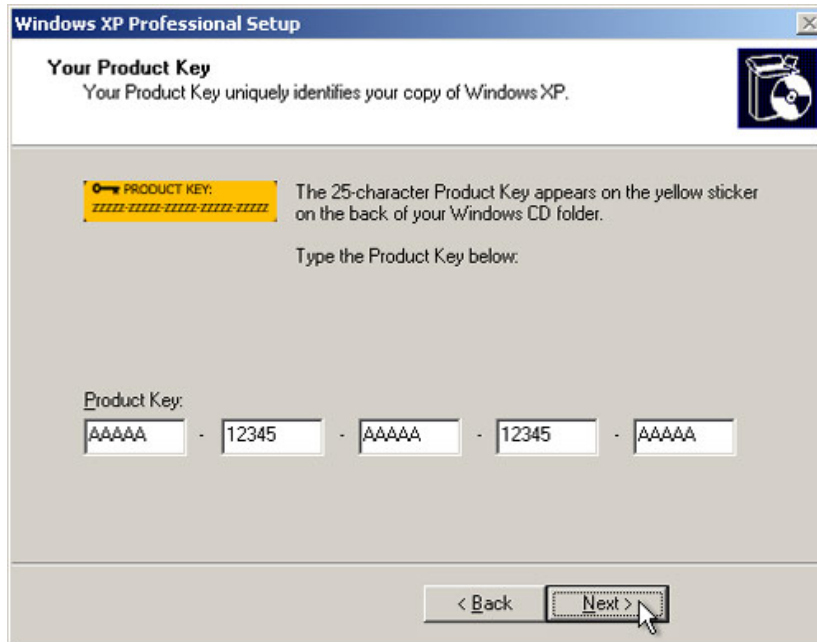
After the formatting process, Windows XP restarts and continues with the installation process. At this point, the mouse can be used to make selections. The "Regional and Language Options" page appears. Click **Next** to accept the default settings. Regional and language options can be configured after setup is complete.

The "Personalize Your Software" page appears. Type the name and the organization name provided by your instructor. Click **Next**.



Step 7

The “Your Product Key” page appears. On this page, type your product key as it appears on your Windows XP CD case. Click **Next**.

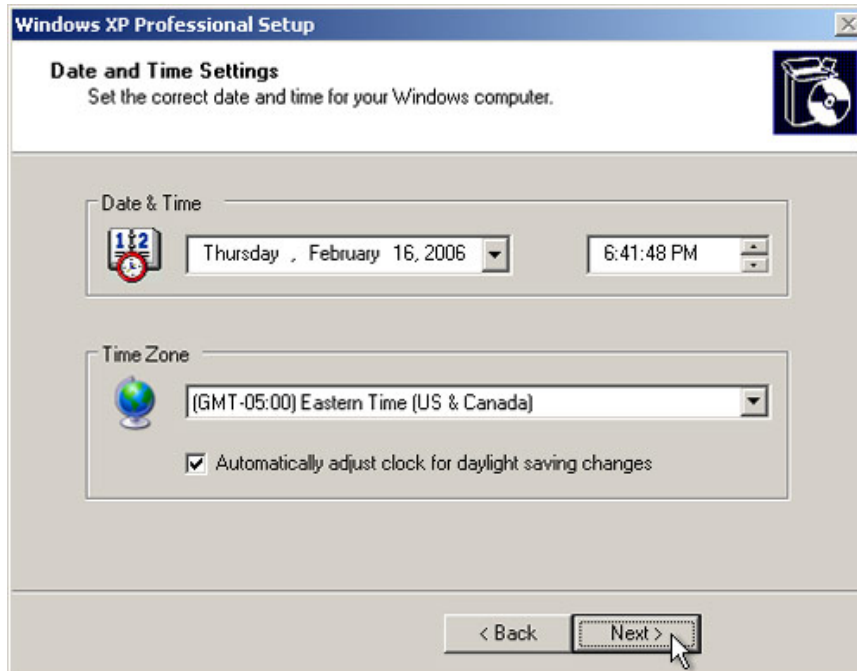


On the “Computer Name and Administrator Password screen”, type the computer name provided by your instructor. Type the Administrator password provided by your instructor, and retype it in the Confirm password section. Click **Next**.



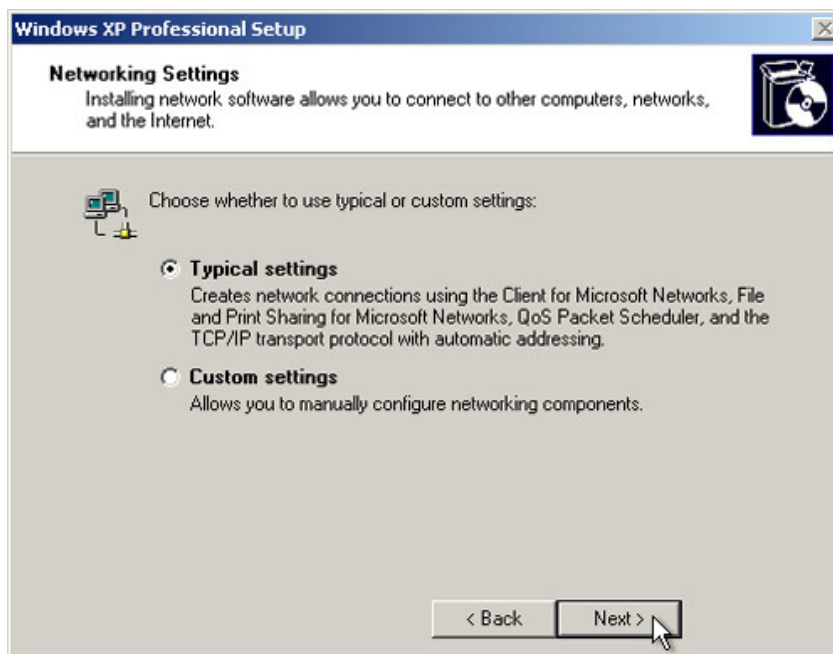
Step 8

On the “Date and Time Settings” screen, configure the computer clock to match your local date, time, and time zone. Click **Next**.



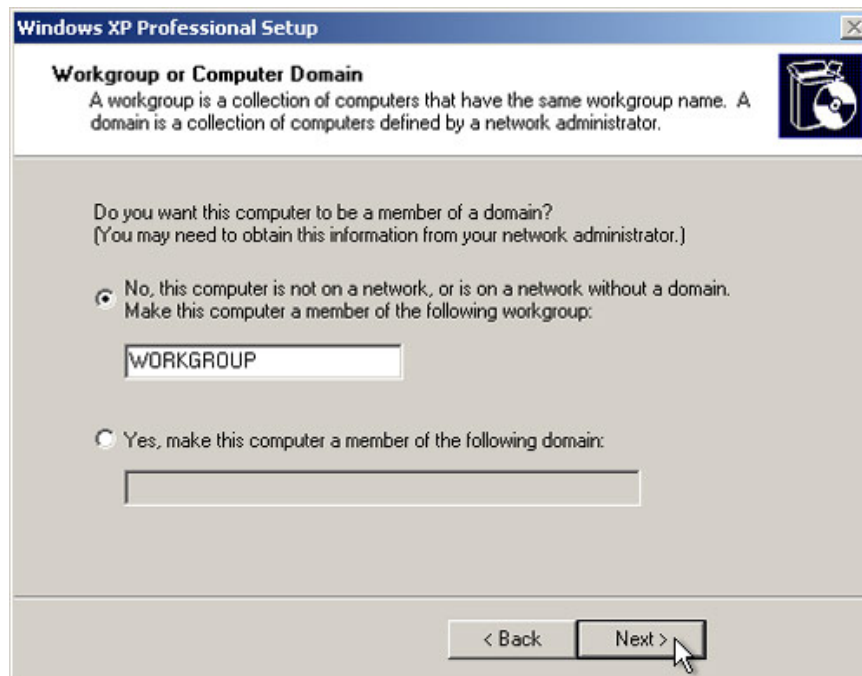
Step 9

On the “Networking Settings” page, click **Next** to accept “Typical settings”. “Custom settings” can be configured after setup is complete.



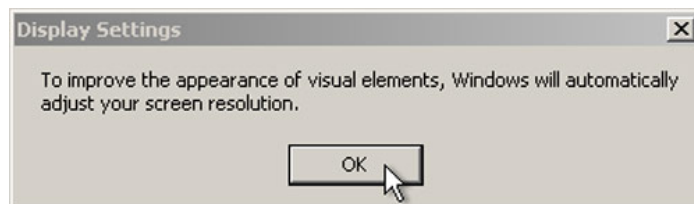
Step 10

On the “Workgroup or Computer Domain” page, accept the default settings and click **Next**.



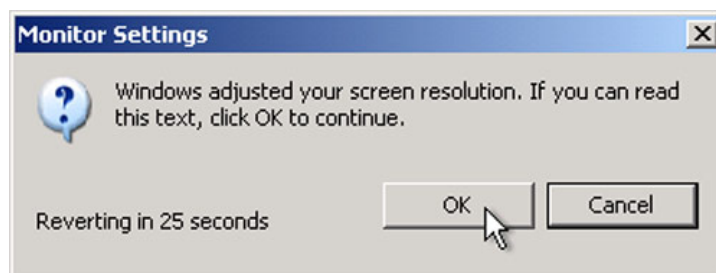
Step 11

Windows XP Professional Setup may take about 25 minutes to configure your computer. Your computer will automatically restart when the setup program is complete. When the “Display Settings” dialog box appears, click **OK**.



Step 12

When the “Monitor Settings” dialog box appears, click **OK**.



Step 13

The final phase of Windows XP Professional Setup begins. On the “Welcome to Microsoft Windows” page, click **Next**.



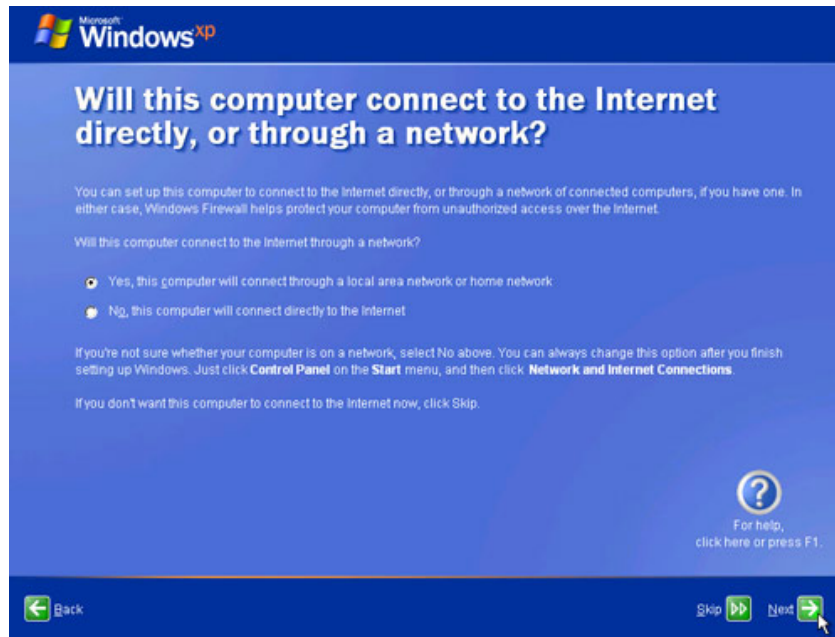
Step 14

On the “Help protect your PC screen”, select “Help protect my PC by turning on Automatic Updates now”. Click **Next**.



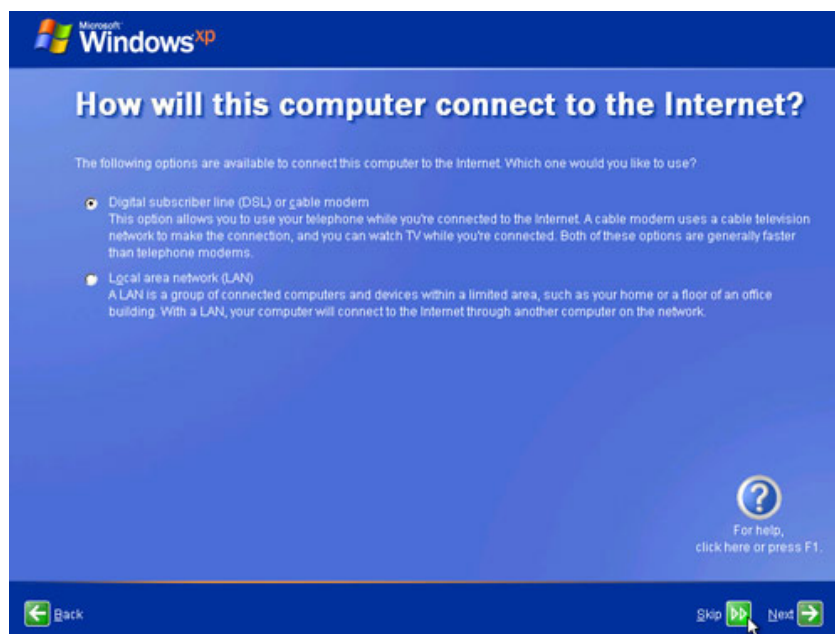
Step 15

Windows XP will now check to make sure that you are connected to the Internet. If you are already connected to the Internet, select the choice that represents your network connection. If you are unsure of the connection type, accept the default selection, and click **Next**.



Step 16

If you use dial-up Internet access, or if Windows XP Professional Setup cannot connect to the Internet, you can connect to the Internet after setup is complete. Click **Skip** to continue.



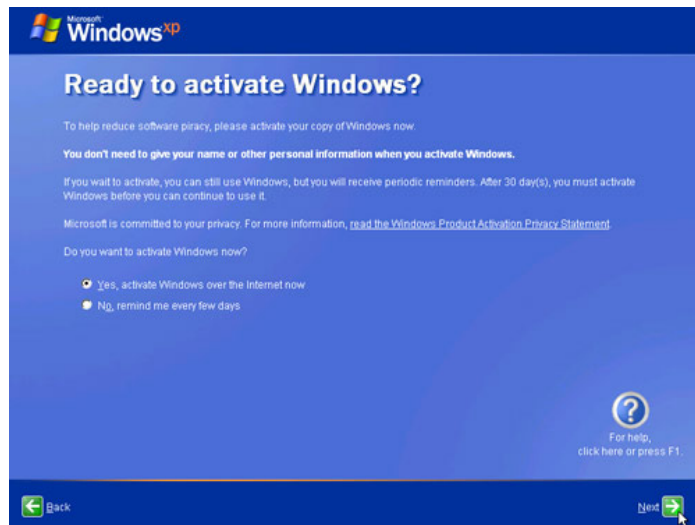
Step 17

Windows XP Professional Setup displays the “Ready to activate Windows?” screen.

If you are already connected to the Internet, click **Yes**, and then click **Next**.

If you are not yet connected to the Internet, click **No**, and then click **Next**.

After setup is complete, Windows XP setup program will remind you to activate and register your copy of Windows XP.

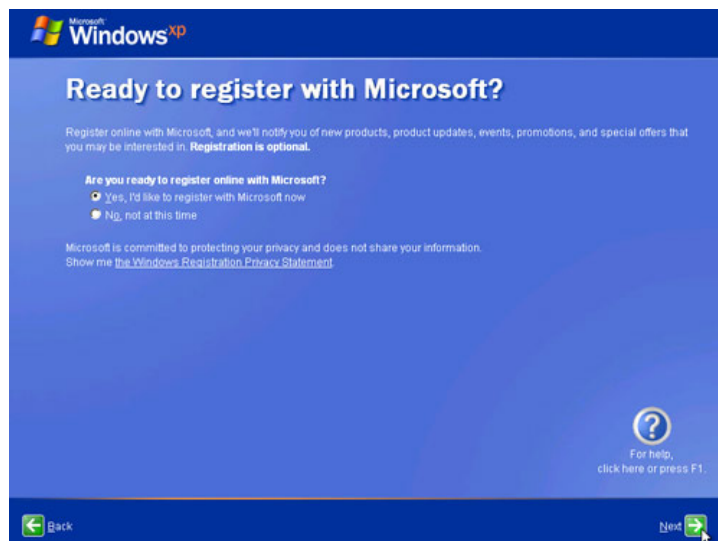


Step 18

If you have an Internet connection, click “Yes, I’d like to register with Microsoft now”.


If you do not have an Internet connection, click “No, not at this time”.

Click **Next**.



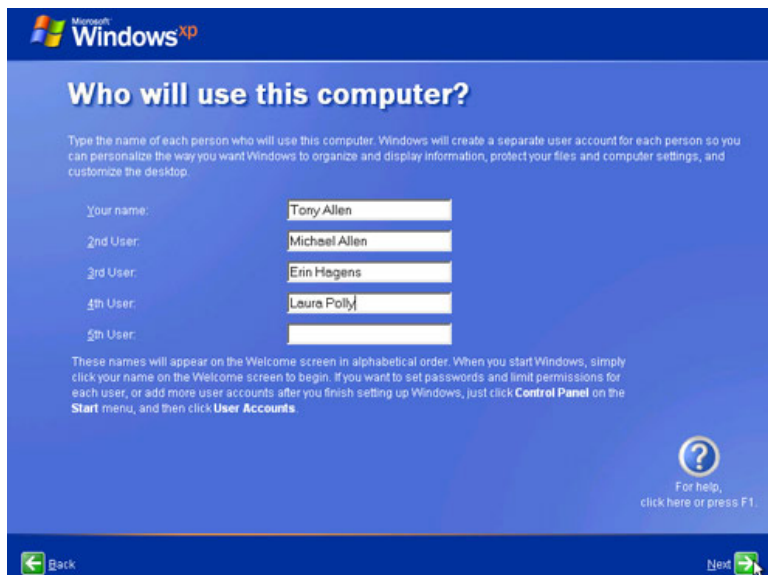
Step 19

On the “Collecting Registration Information screen”, fill in the fields using the information provided by your instructor and click **Next**.



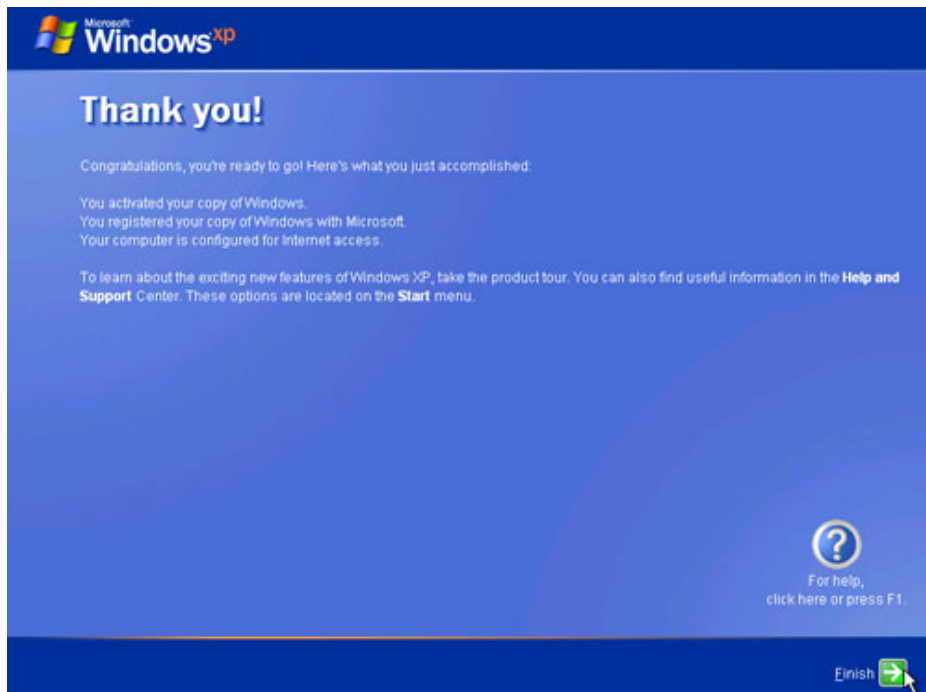
Step 20

On the “Who will use this computer?” screen, enter the information provided by your instructor. Click **Next**.



Step 21

On the “Thank you!” screen, click **Finish** to complete the installation.



5.4.5 Lab: Create Accounts and Check For Updates in Windows XP

Introduction

Print and complete this lab.

In this lab, you will create user accounts and configure the operating system for automatic updates after the Windows XP Professional installation process.

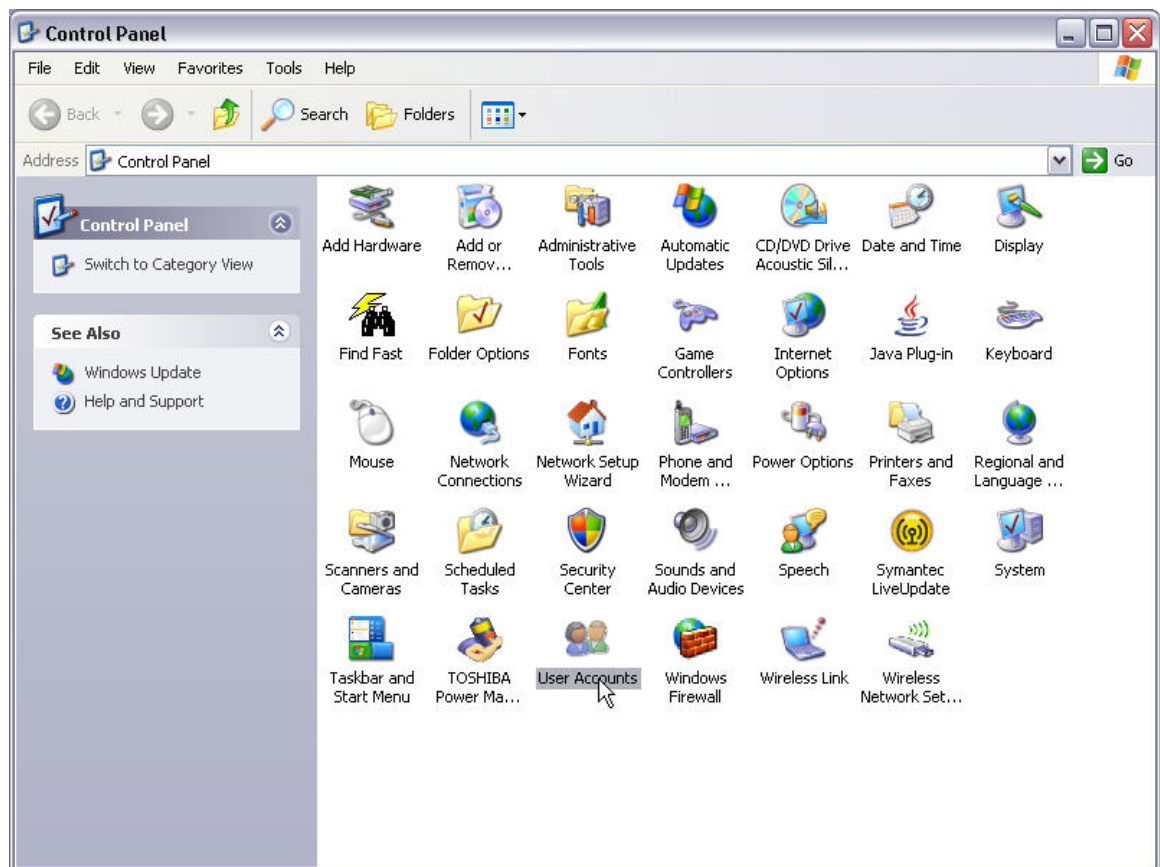
Recommended Equipment

The following equipment is required for this exercise:

- A computer with a new installation of Windows XP Professional

Step 1

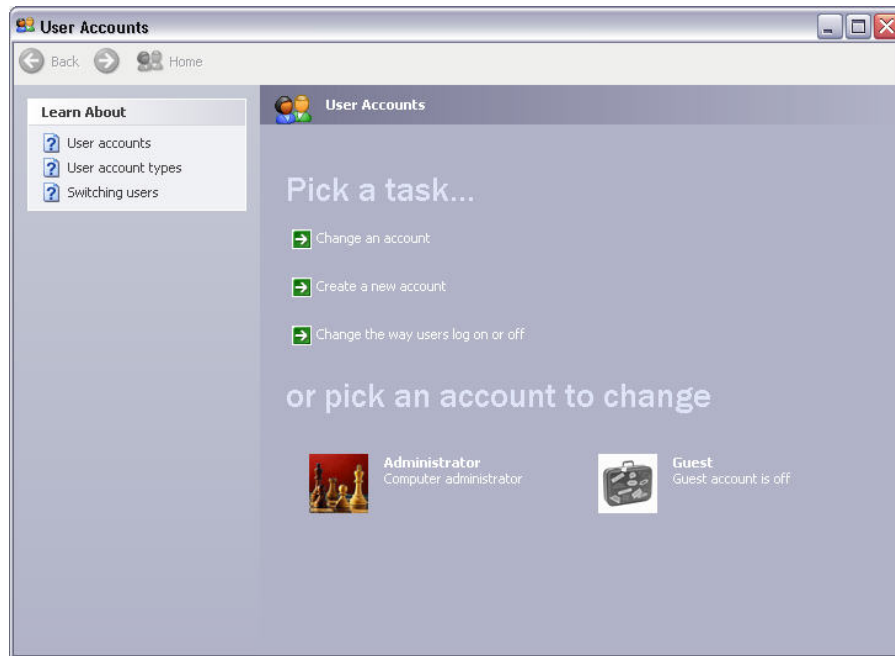
Boot the computer. Navigate to the “Control Panel” window by clicking **Start > Control Panel**.



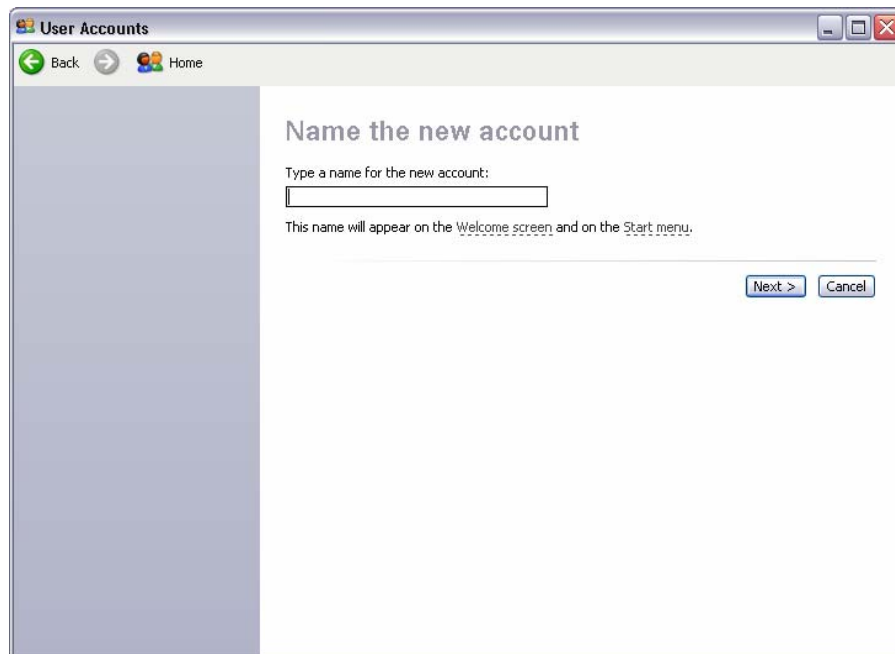
Step 2

Double-click the **User Accounts** icon.

The “User Accounts” window appears. Click **Create a new account**.

**Step 3**

At “Name the new account”, type your name in the field and then click **Next**.



Step 4

At “Pick an account type”, leave the default setting of Computer administrator and click **Create Account**.



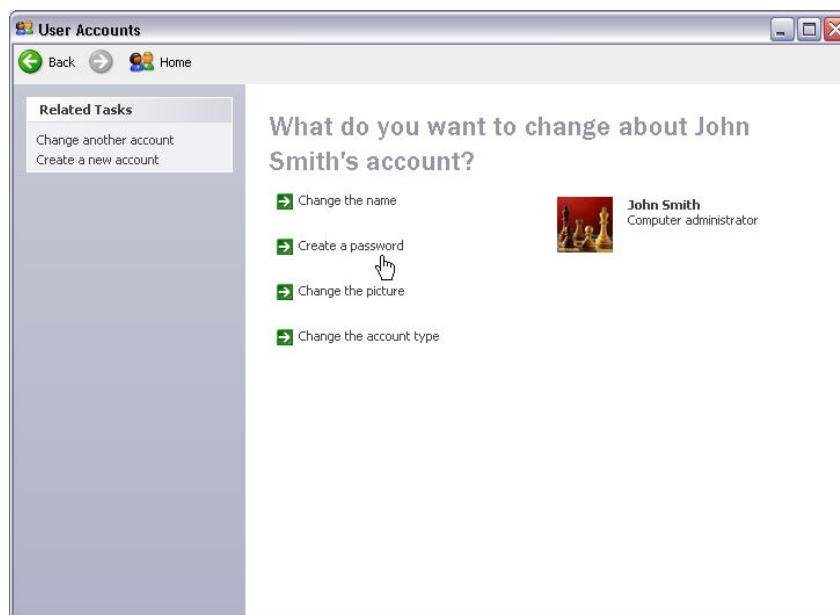
You have now finished creating a new account. Log off the computer and log back on as yourself. Leave the password field blank.

Step 5

Return to the “User Accounts” window of the control panel.

Click your account.

Click **Create a password**.



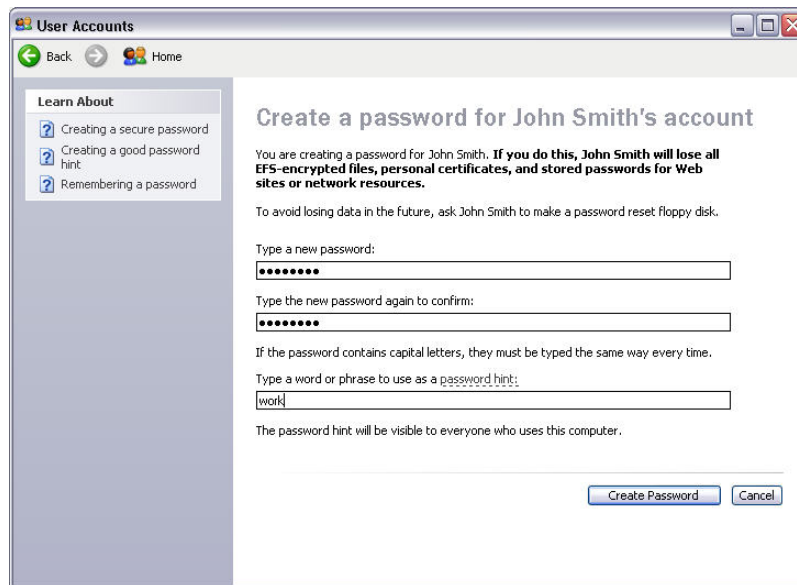
Step 6

On the “Create a password for your account” page, type your first initial and your last name in the “Type a new password:” field. Example: jsmith

Type the same password in the “Type the new password again to confirm:” field.

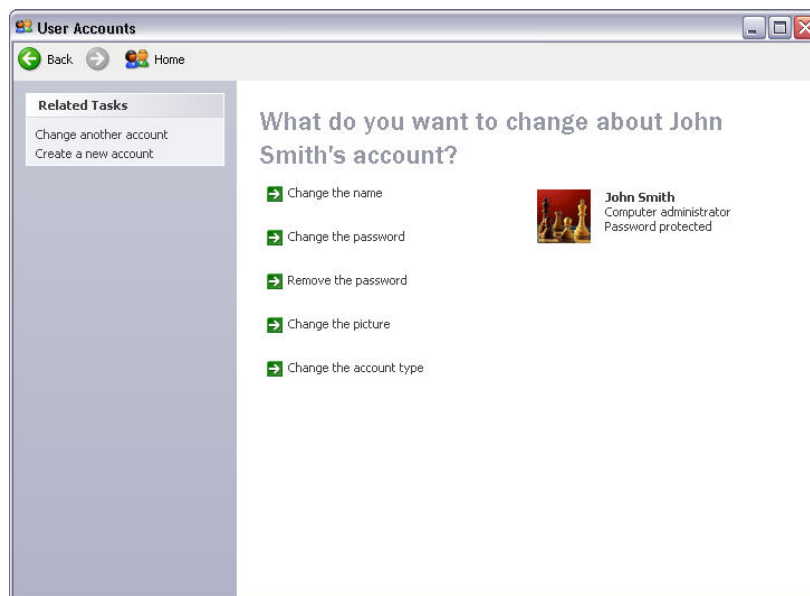
Type **fi last name** in the “Type a word or phrase to use as a password hint:” field.

Click **Create Password**.



Step 7

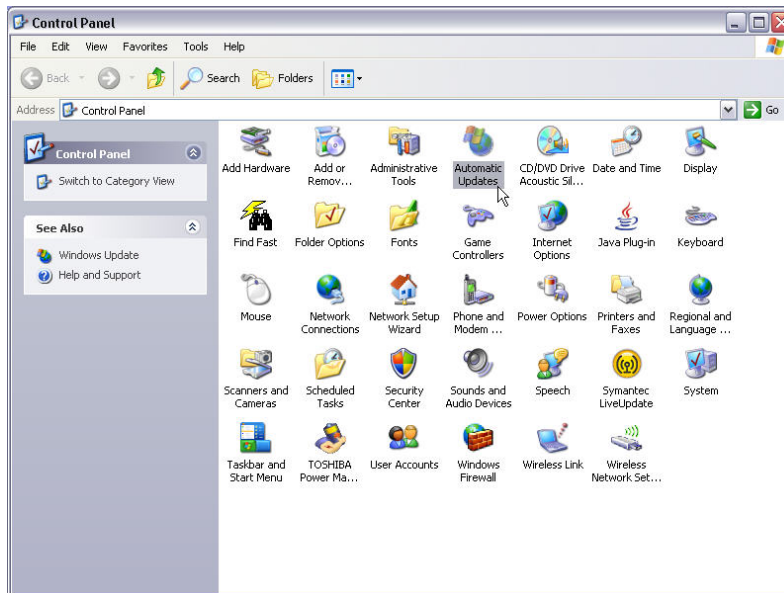
Click the red X in the upper-right corner of the “User Accounts” window to close the window.



Step 8

Click **Start > Control Panel**.

Double-click the **Automatic Updates** icon.

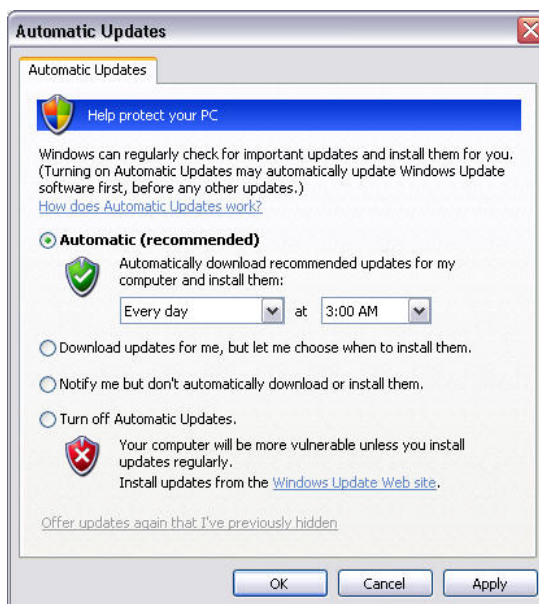


Step 9

The "Automatic Updates" dialog box appears.

Click the **Automatic (recommended)** radio button.

Click **OK** to accept the change and close the dialog box.



5.4.8 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. You will also learn how to export and import registry settings.

Recommended Equipment

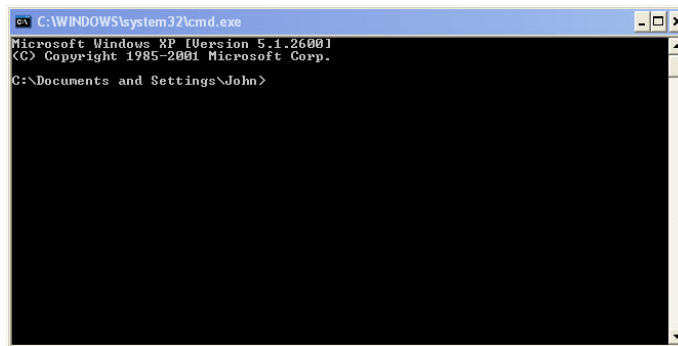
The following equipment is required for this exercise:

- A computer running Windows XP Professional

Step 1

Log on to the computer as an administrator.

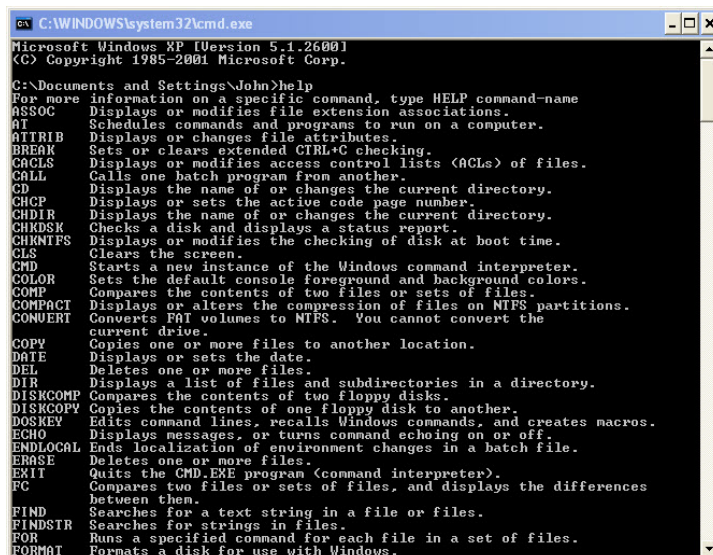
Open the command prompt by clicking **Start > Run > type cmd > click OK**.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\John>
```

What is the drive path shown? Answers may vary.

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



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\John>help
For more information on a specific command, type HELP command-name.
ASSOC Displays or modifies file extension associations.
AT Schedules commands and programs to run on a computer.
ATTRIB Displays or changes file attributes.
BREAK Sets or clears extended CTRL+C checking.
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.
CHRNFIS 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.
DOSKEY Edits command lines, recalls Windows commands, and creates macros.
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:\Documents and Settings\John>cd ..
C:\Documents and Settings>
C:\Documents and Settings>cd John
C:\Documents and Settings\John>
  
```

What is the drive path shown? Answers may vary.

Change back to original drive path.

Example: Type **cd John** and press **Enter**.

What is the drive path shown? Answers may vary.

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.

/A      Displays files with specified attributes.
attributes  D Directories with specified attributes      R Read-only files
            H Hidden files                               A Files ready for archiving
            S System files                               - 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  M 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.
/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.
/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.

/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:\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>      ..
07/23/2008  03:39 PM  <DIR>      [.nbi]
09/23/2008  03:42 PM  <DIR>      [.netbeans-registration]
10/21/2008  05:54 AM             314 hecker.robots.ini
07/23/2009  07:44 PM  <DIR>      Desktop
02/04/2009  07:28 PM  <DIR>      Favorites
06/04/2009  03:38 PM  <DIR>      My Documents
02/10/2008  05:12 PM  <DIR>      RNT
02/08/2008  09:36 AM  <DIR>      Start Menu
01/23/2009  06:31 AM  <DIR>      temp
02/09/2009  07:32 AM  <DIR>      WebEx
    1 File(s)                314 bytes
    11 Dir(s)              68,156,264,448 bytes free

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]  hecker.robots.ini  [Desktop]
[Favorites]    [My Documents]  [RNT]
[Start Menu]   [temp]           [WebEx]
    1 File(s)                314 bytes
    11 Dir(s)              68,156,264,448 bytes free

C:\Documents and Settings\John>

```

What is the difference between these two commands?

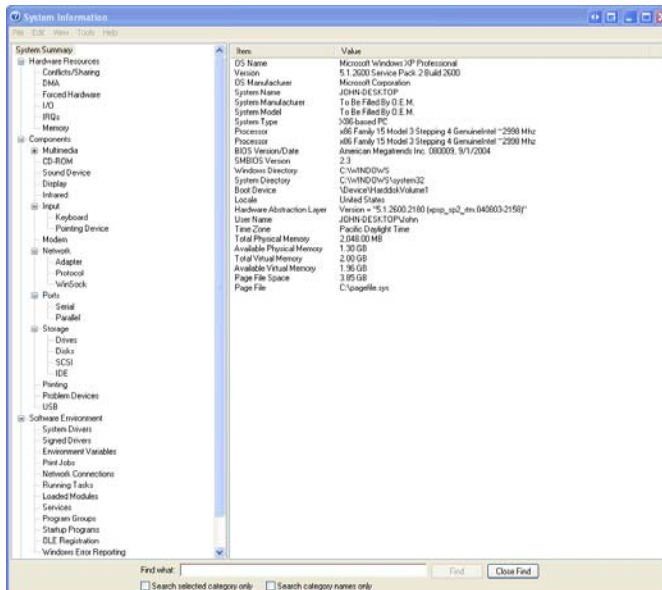
Type **VOL**.
What volume is drive C in? Answers may vary.

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)

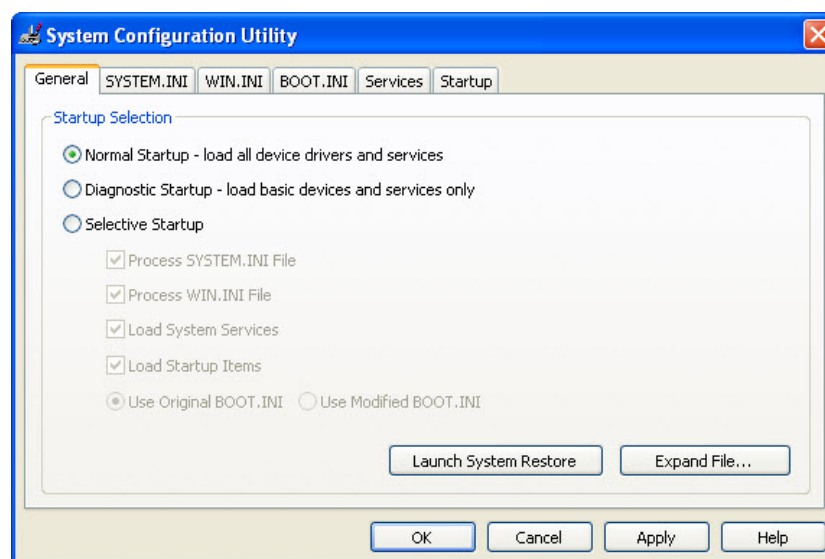
Under the Components heading and Software heading look around to see what information is provided in these areas.

Close the System Information window.

Step 3

Open System Configuration Utility by clicking **Start > Run > type msconfig > click OK**.

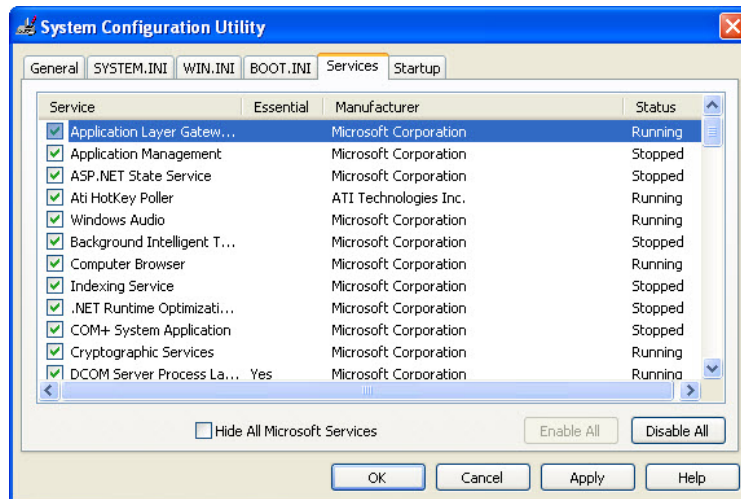
Note: It is very important that you do not make any changes in this utility without instructor permission.



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 tabs are for modifying these files.

Click the **Service** tab. This tab lists the computer's services and their status.



Can you enable and disable services at this tab?

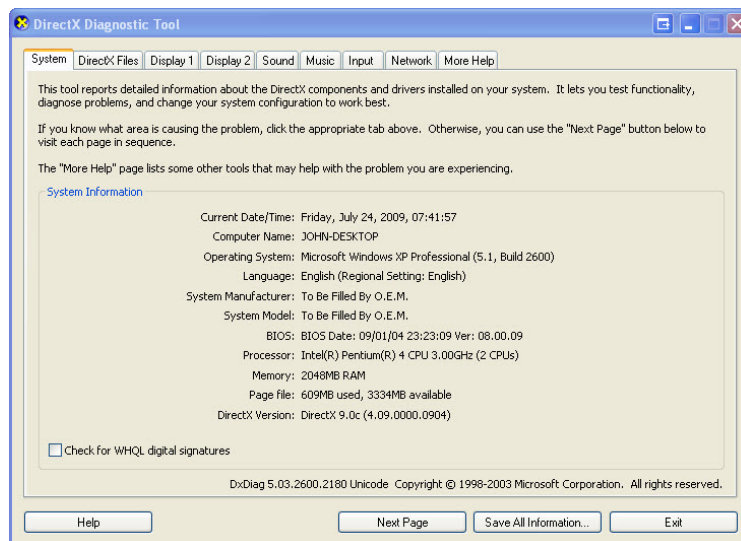
Click the **Startup** tab. This tab lists the programs that are automatically loaded every time you turn on your computer.

Click **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**.

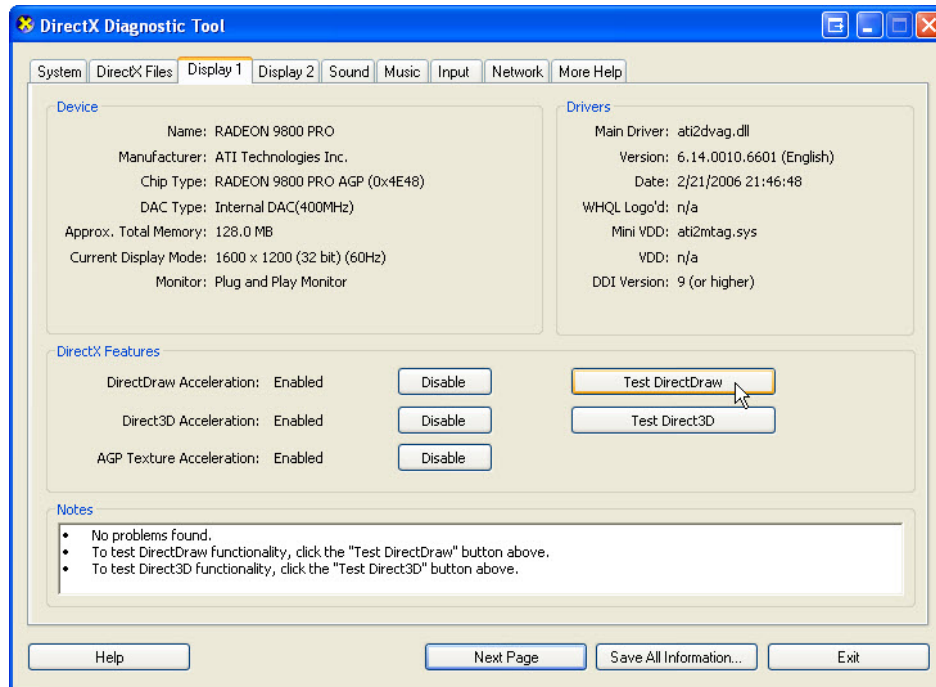
Note: When DirectX Diagnostic Tool first opens it may take a minute to load all information. Your DirectX Diagnostic Tool may not appear exactly as shown in this lab.



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**.



Follow the rest of the instruction as the test progresses.
Place a check mark next to ever test that your computer passes.
alternating black and white rectangles _____

bouncing white box in a black box _____

fullscreen bouncing white box _____

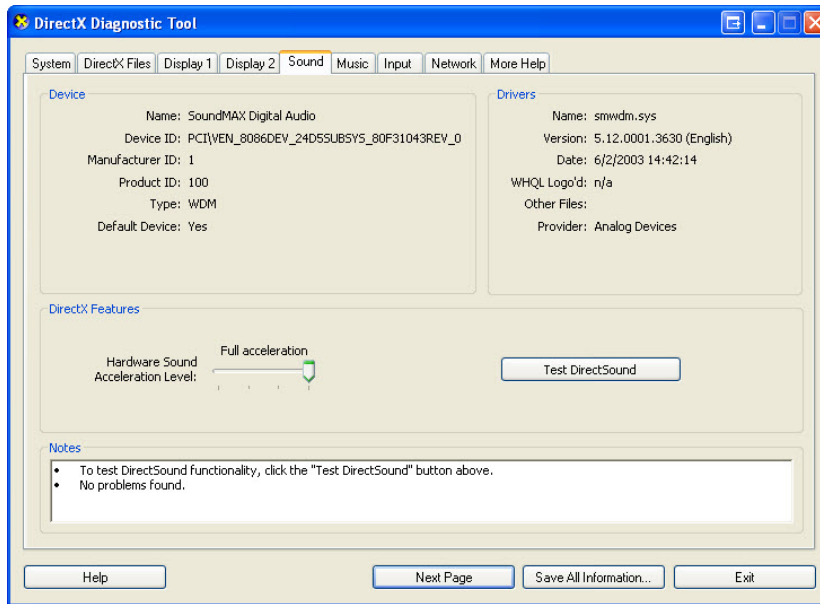
Click **Test Direct3D**.

Follow the rest of the instruction as the test progresses.
DirectX 7 interface test: what did you see? S

DirectX 8 interface test: what did you see?

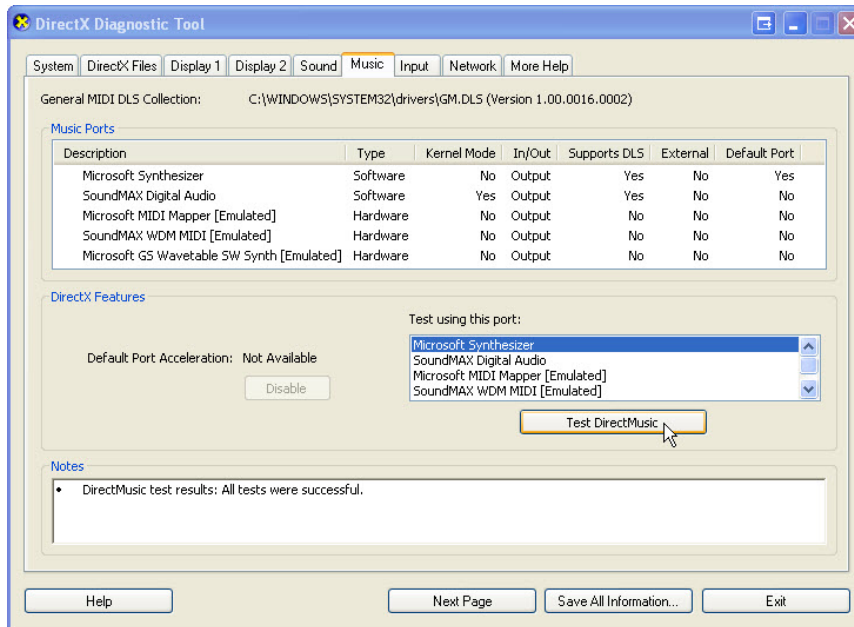
DirectX 9 interface test: what did you see?

Click **Next Page** until you are at the Sound tab.
If you have a headphones click **Test DirectSound**. If you have no headphones move to the next instruction.



Did you hear the sound effects in the audio test?

Click **Next Page** until you are at the Music tab.
If you have a headphones click **Test DirectMusic**. If you have no headphones move to the next instruction.



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?

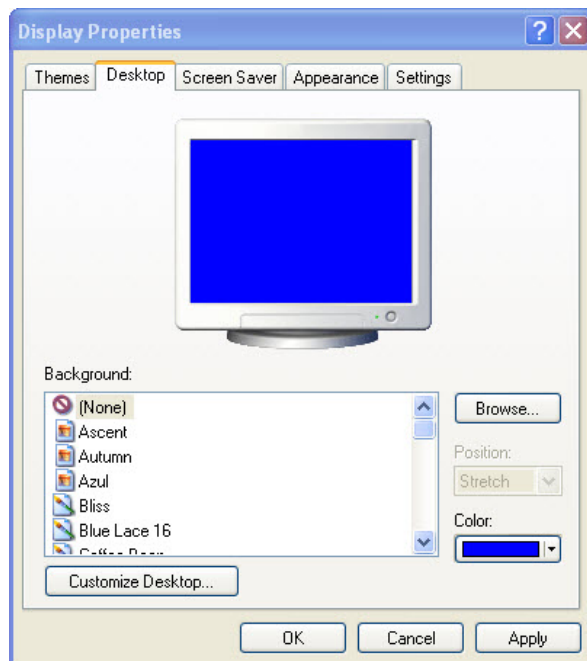
Click **Exit**.

Step 5

Open the Desktop tab in Display Properties by right clicking the **desktop > Properties > Desktop** tab.

What is the Background picture?
Answers will vary

Set the background image to (None). If the **Color** dropdown button is not blue, click the **Color** dropdown button, select **blue**.
Click **OK**.

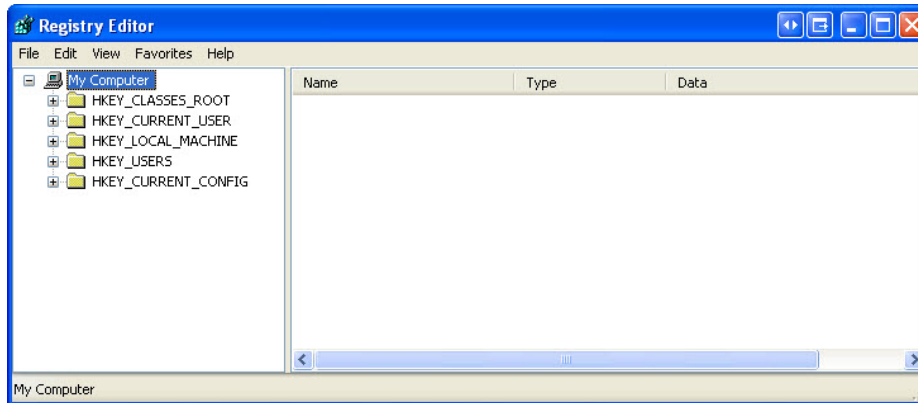


The computer screen should now have a blue background. If not ask the instructor for assistance.

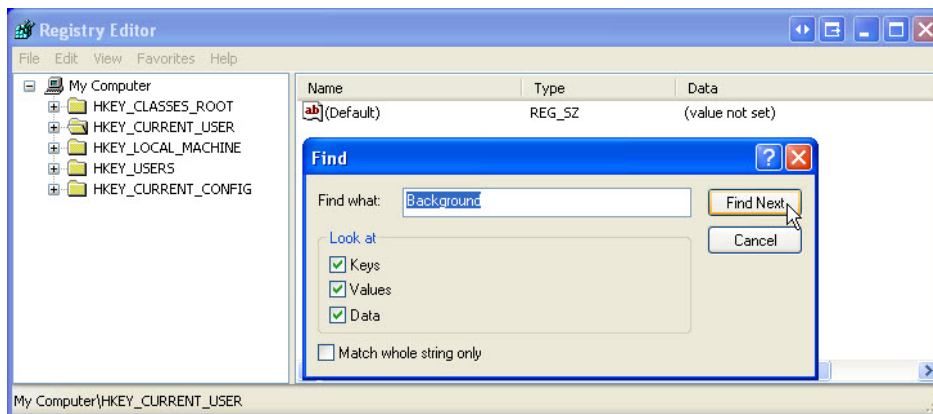
Step 6

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

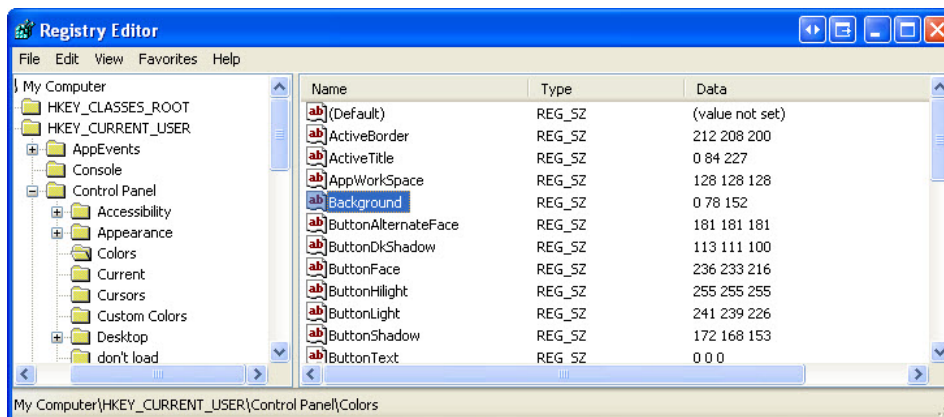
Note: Do not make any changes in the Registry Editor without instructor permission.



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 number that corresponds to red, green blue)? Answers may vary based on the shade of red selected in Display Properties.

Step 7

We will now export **HKEY_CURRENT_USER\Control Panel\Colors** folder. In the left pan click the **Colors** folder.

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

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



```
Windows Registry Editor Version 5.00

[HKEY_CURRENT_USER\Control Panel\Colors]
"ActiveBorder"="212 208 200"
"ActiveTitle"="0 84 227"
"Appworkspace"="128 128 128"
"Background"="0 78 152"
"ButtonAlternateFace"="181 181 181"
"ButtonDkshadow"="113 111 100"
"ButtonFace"="236 233 216"
"ButtonHighlight"="255 255 255"
"ButtonLight"="241 239 226"
"ButtonShadow"="172 168 153"
"ButtonText"="0 0 0"
"GradientActiveTitle"="61 149 255"
"GradientInactiveTitle"="157 185 235"
"GrayText"="172 168 153"
"Highlight"="49 106 197"
"HighlightText"="255 255 255"
"HotTrackingColor"="0 0 128"
"InactiveBorder"="212 208 200"
"InactiveTitle"="122 150 223"
"InactiveTitleText"="216 228 248"
"InfoText"="0 0 0"
"Infowindow"="255 255 225"
"Menu"="255 255 255"
"MenuText"="0 0 0"
"Scrollbar"="212 208 200"
"TitleText"="255 255 255"
"Window"="255 255 255"
"WindowFrame"="0 0 0"
"WindowText"="0 0 0"
"MenuHighlight"="49 106 197"
"MenuBar"="236 233 216"
```

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

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

Step 8

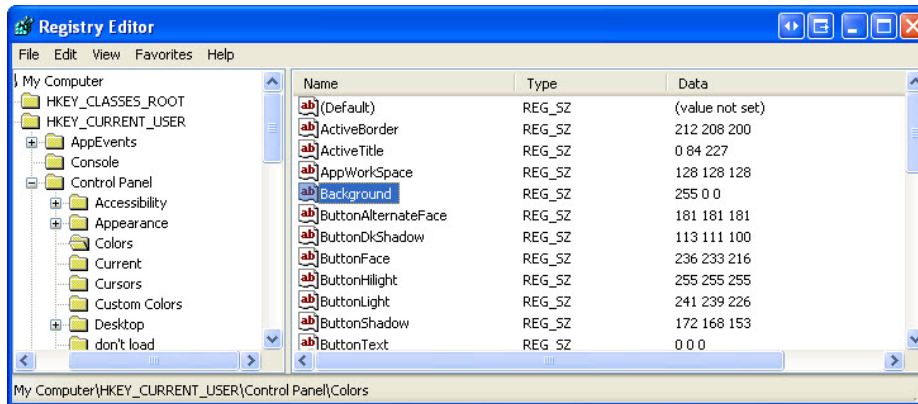
Open the Desktop tab in Display Properties by right clicking the **desktop > Properties > Desktop** tab.

Set the **Color** dropdown button is not red, click the **Color** dropdown button, select **red**.

Click **OK**.

In a few second 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.

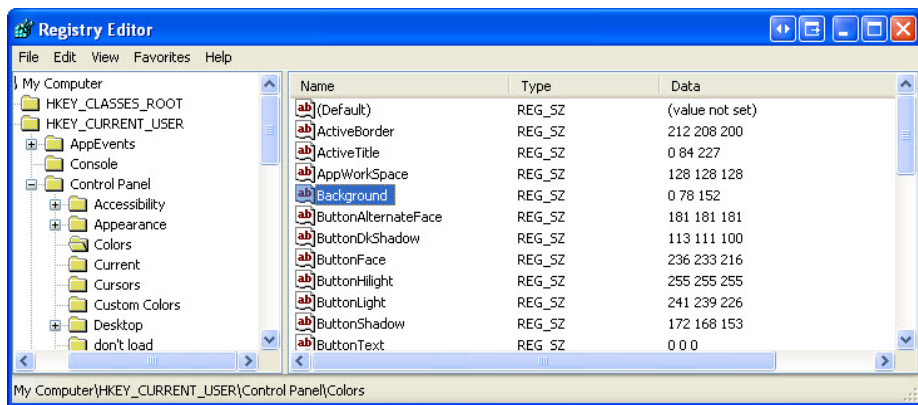


What is the data value of the Background? Answers may vary based on the shade of red selected in Display Properties.

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).

5.5.1 Lab: Run Commands in Windows XP

Introduction

Print and complete this lab.

In this lab, you will open the same program by using the Windows Explorer and the “Run...” command.

Recommended Equipment

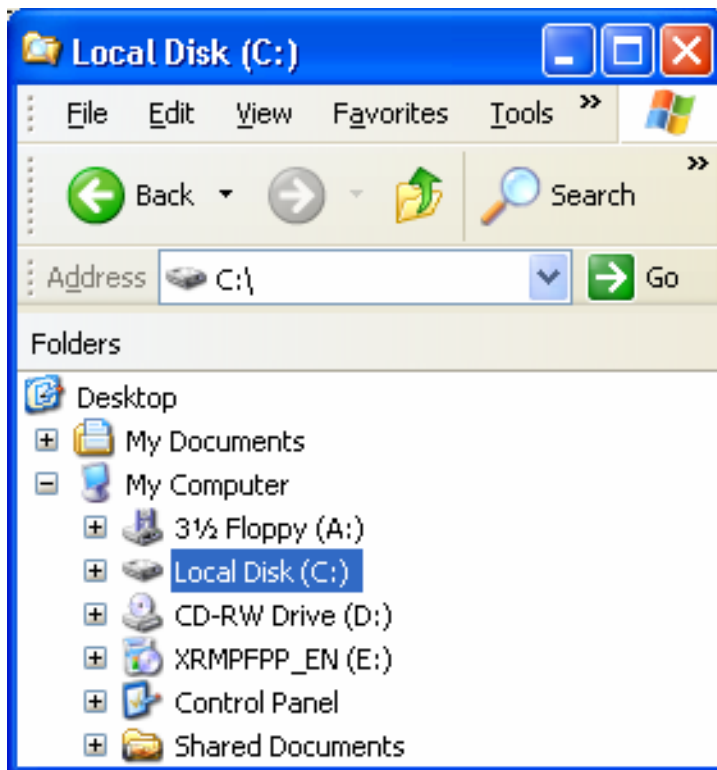
The following equipment is required for this exercise:

- A computer system running Windows XP

Step 1

Boot the computer and log on as yourself.

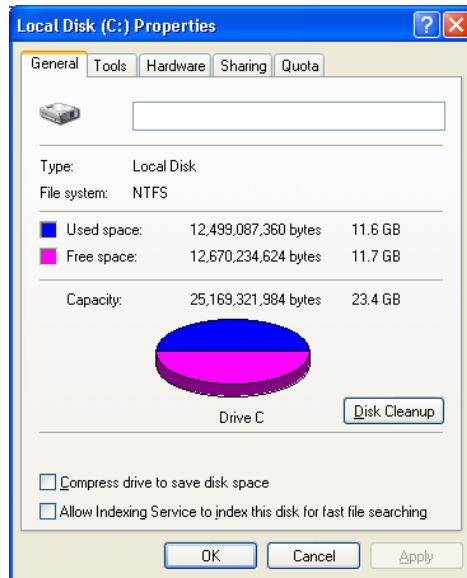
Right-click the **Start** button and then click **Explore**.



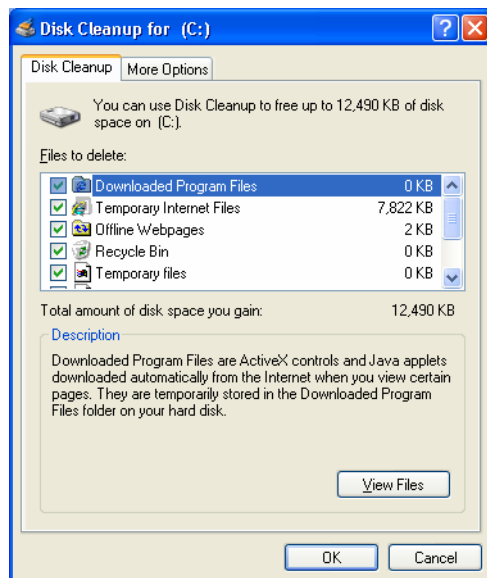
Step 2

Right-click the **Local Disk(C:)** hard disk drive.

Click **Properties** and then click the **Disk Cleanup** button.



The Disk Cleanup for (C:) window appears.



Windows calculates the amount of space used by unnecessary files.

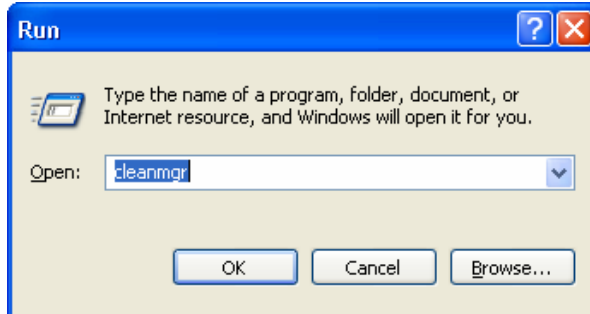
Click **Cancel**.

Step 3

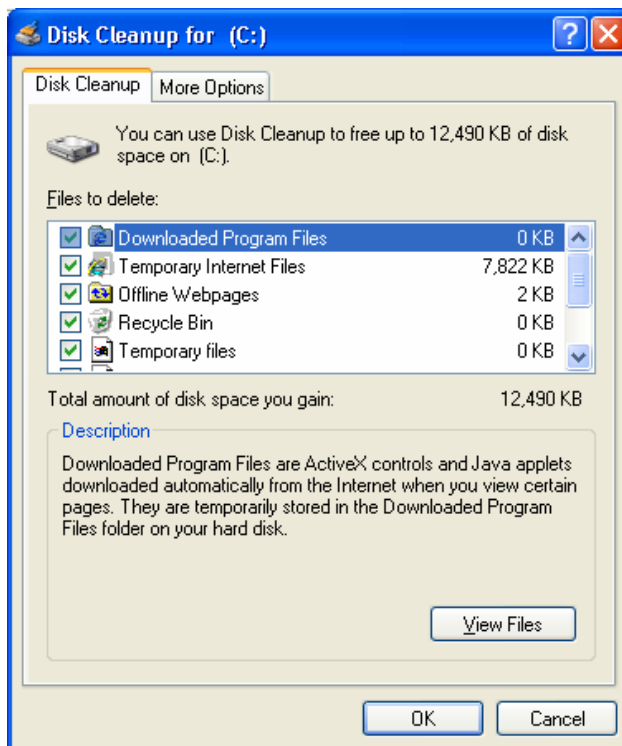
Open the Run dialog box by clicking **Start > Run....**

Type **cleanmgr** in the “Open:” field.

Click **OK**.



The “Disk Cleanup for (C:)” window opens.

**Step 3**

Click the **OK** button.

1. Why should disk cleanup be performed regularly?

5.5.3 Lab: Managing Administrative Settings and Snap-ins in Windows XP

Introduction

Print and complete this lab.

In this lab, you will use administrative tools to monitor system resources. You will also build a custom console to manage storage devices.

Recommended Equipment

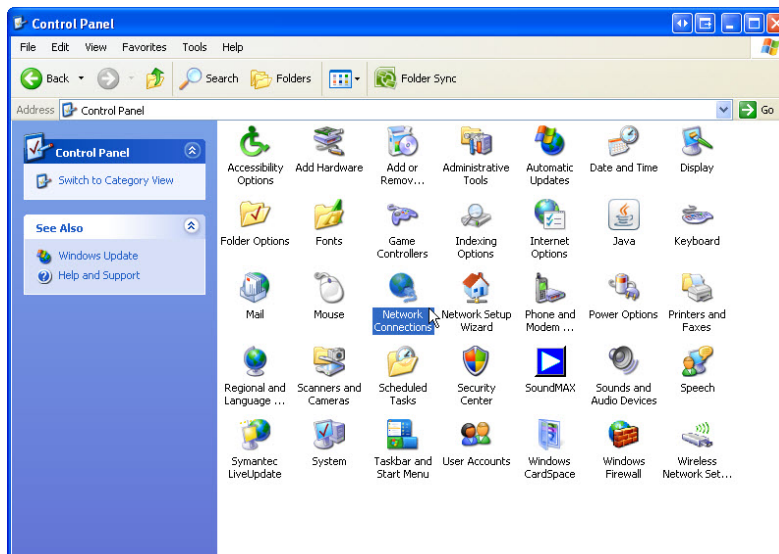
The following equipment is required for this exercise:

- A computer running Windows XP Professional
- Internet access

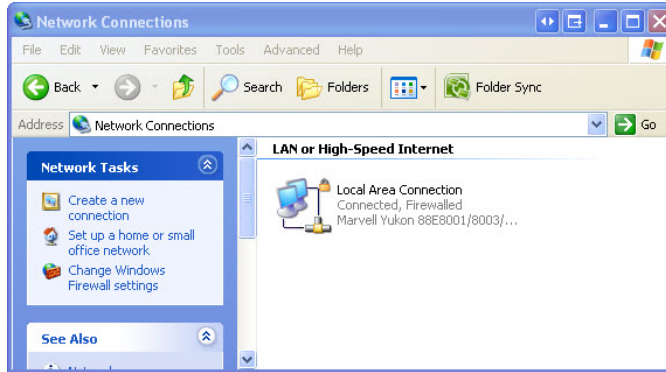
Step 1

Log on to the computer as an administrator.

Navigate to the “Control Panel” window by clicking **Start > Control Panel**. Double-click the **Network Connections** icon.

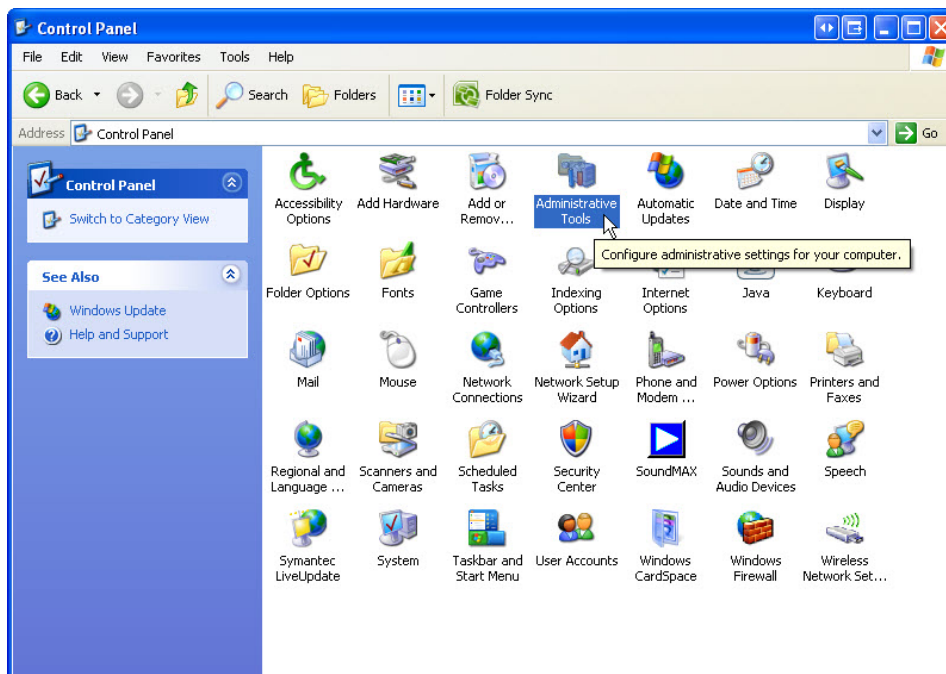


Reduce the size of the “Network Connections” window. Leave this window open.

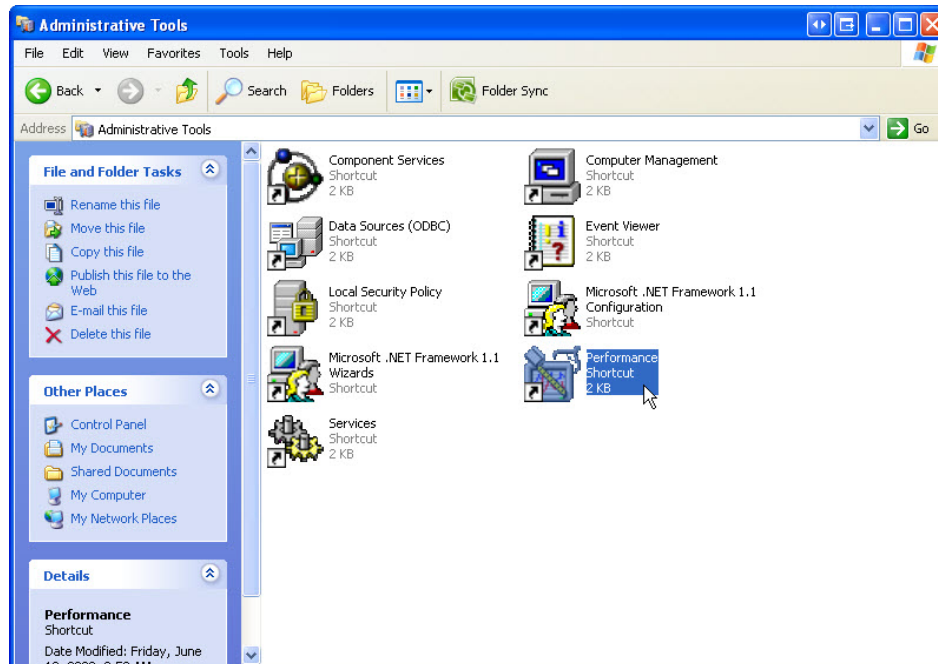


Step 2

Once again navigate to the "Control Panel" window by clicking **Start > Control Panel**. Double-click the **Administrative Tools** icon.

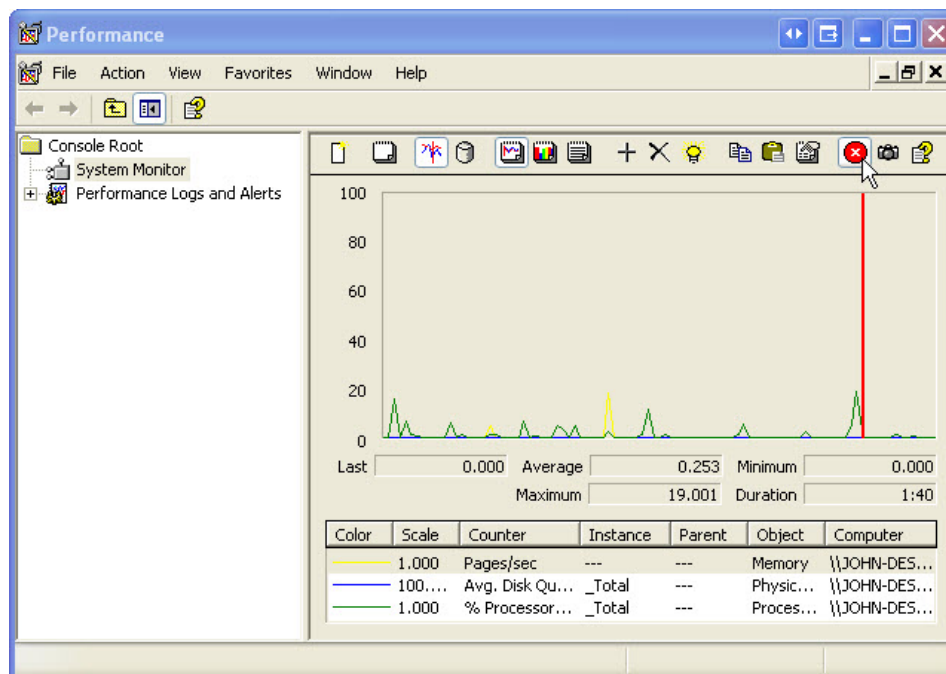


Double-click the **Performance** icon.

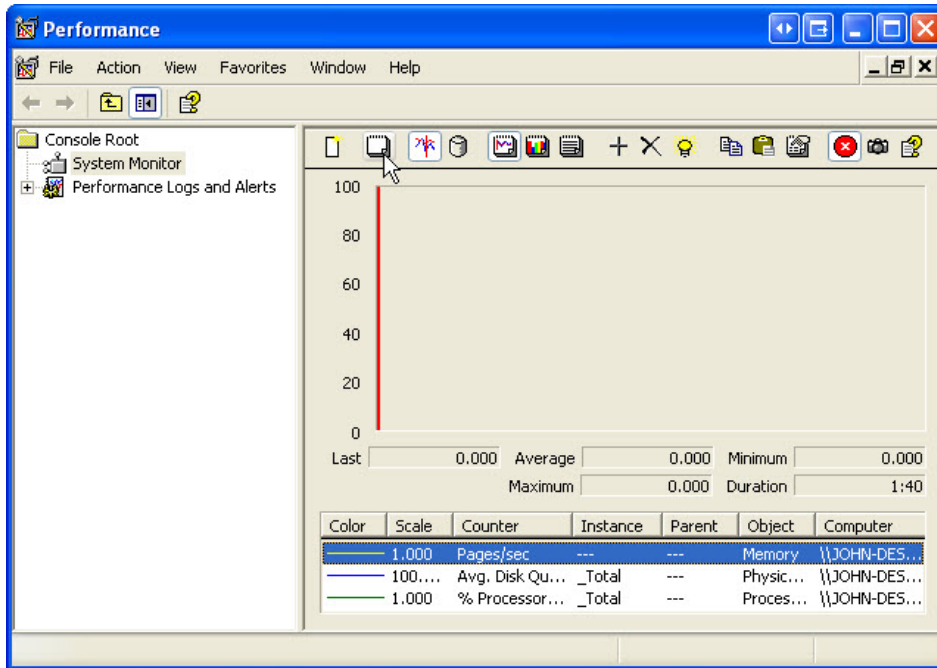


Step 3

The "Performance" window appears. Make sure the System Monitor in the left pane is highlighted. Click the **Freeze Display** icon to stop the recording.

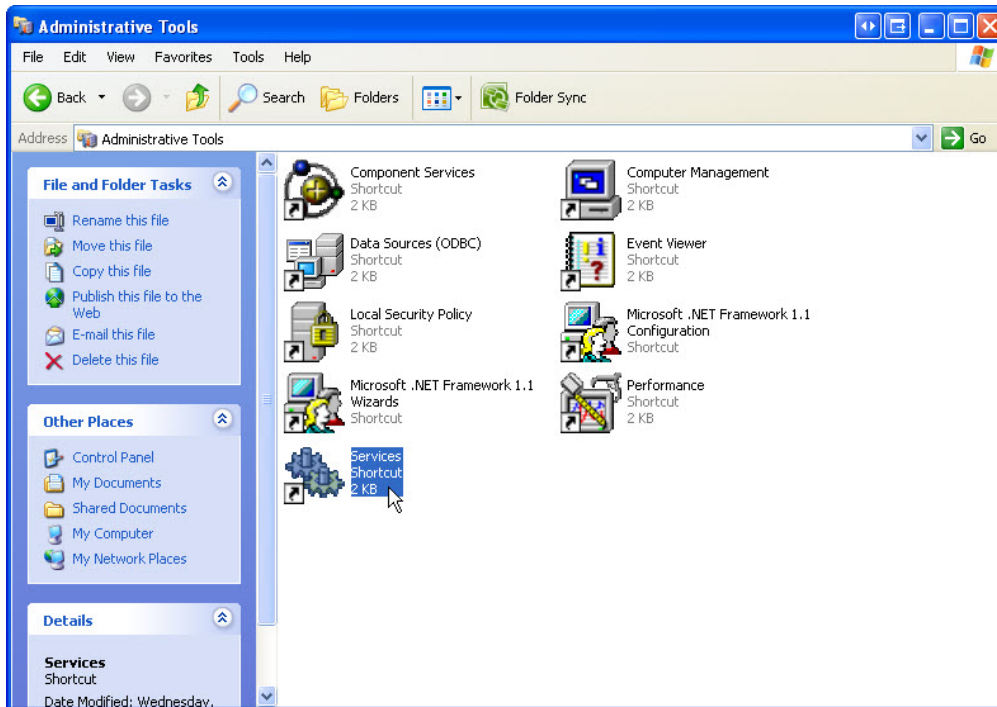


Click the **Clear Display** icon to clear the graph. Leave this window open.



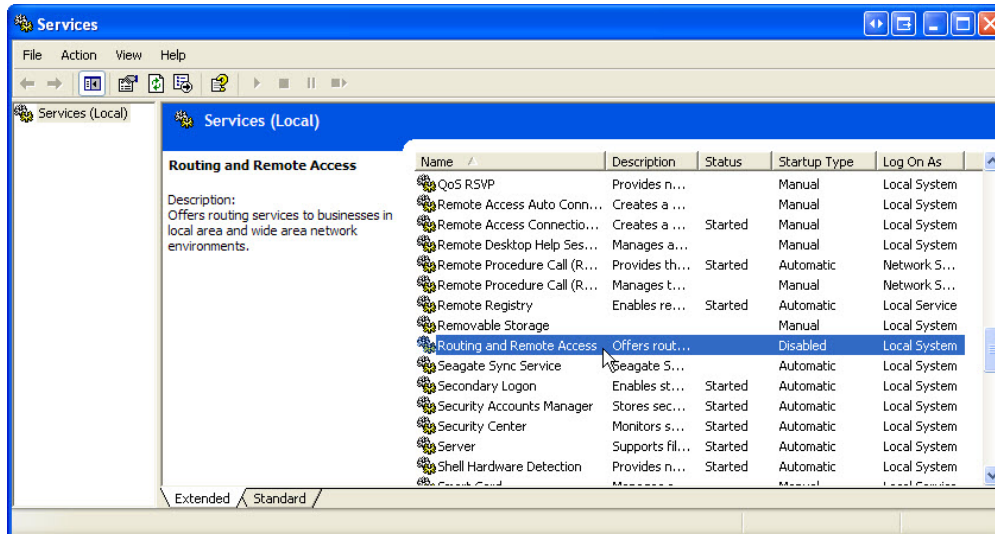
Step 4

Navigate to the “Administrative Tools” window by clicking **Start > Control Panel > Administrative Tools**. Double-click the **Services** icon.

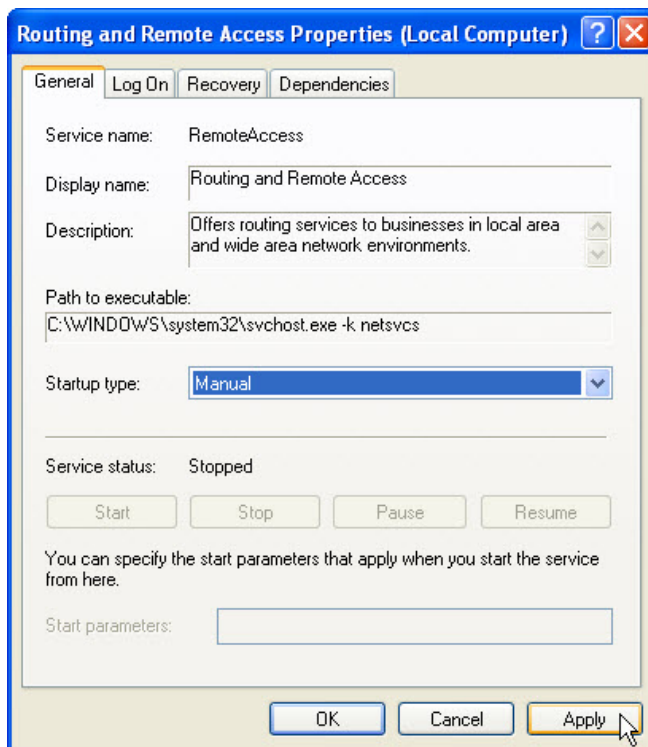


Step 5

Expand the width of the “Services” window so you have a clear view of the content. Scroll down in the right pane until you see the service Routing and Remote Access. Double click **Routing and Remote Access**.



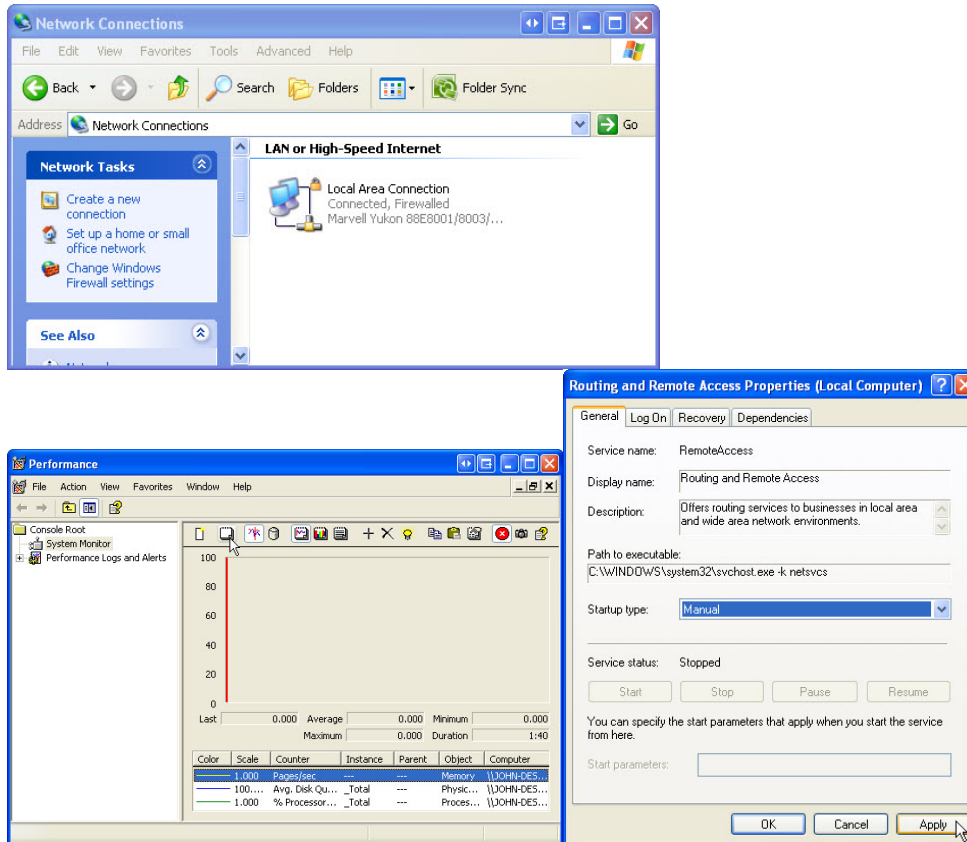
The “Routing and Remote Access Properties (Local Computer)” window appears. In the Startup type select **Manual**. Click **Apply**.



The Start button is now active; do not click the button yet. Leave this window open.

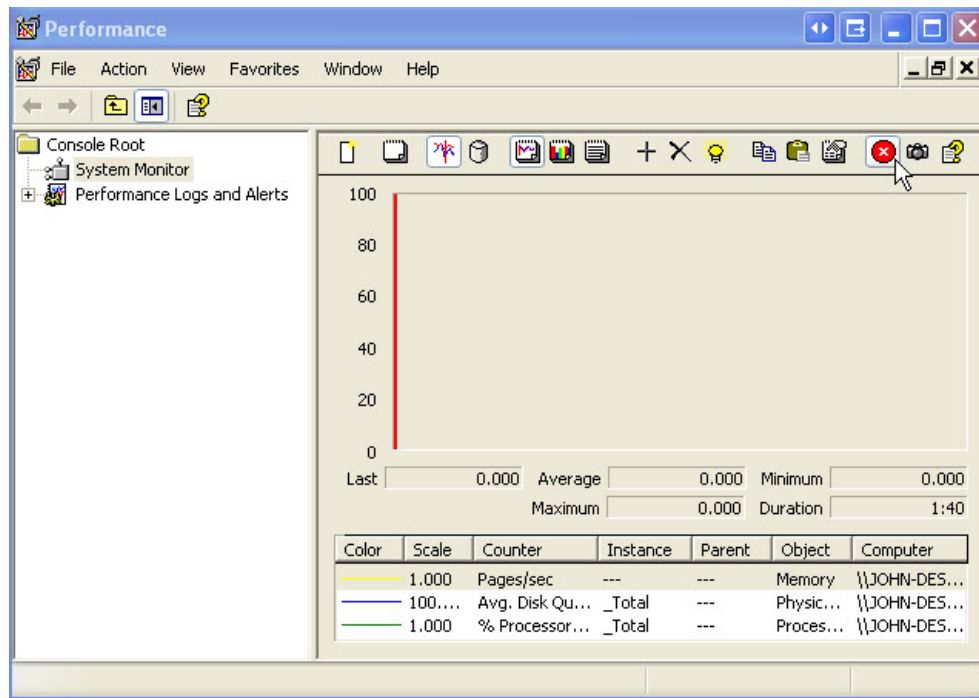
Step 6

Position the following three windows so you can clearly see them at the same time for steps 7 to 14: Network Connections, Routing and Remote Access Properties (Local Computer), and Performance.



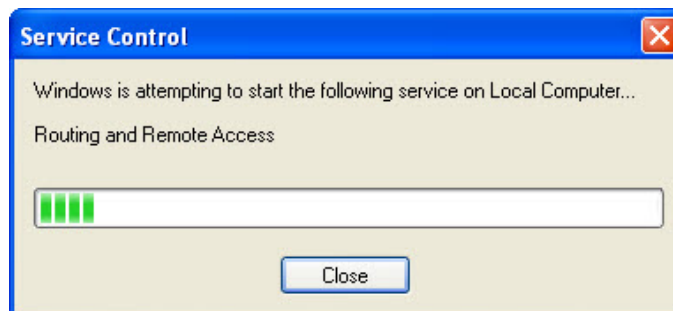
Step 7

Click the “Performance” window so it is activated. Click the **Freeze Display** icon to start the recording.

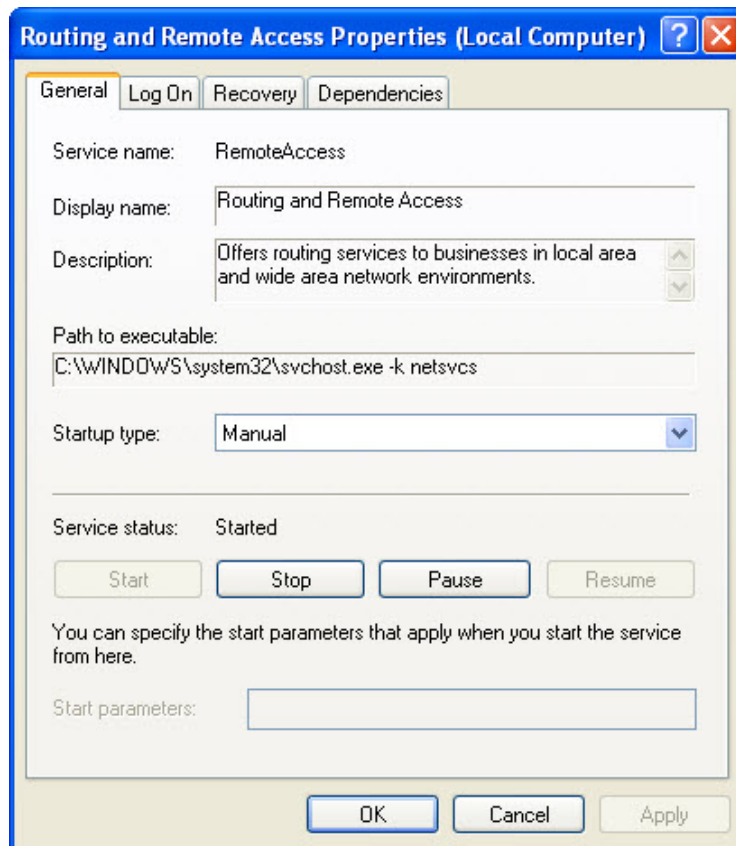
**Step 8**

Click the “Routing and Remote Access Properties (Local Computer)” window so it is activated. To start the Service click **Start**.

A window with a progress bar appears.

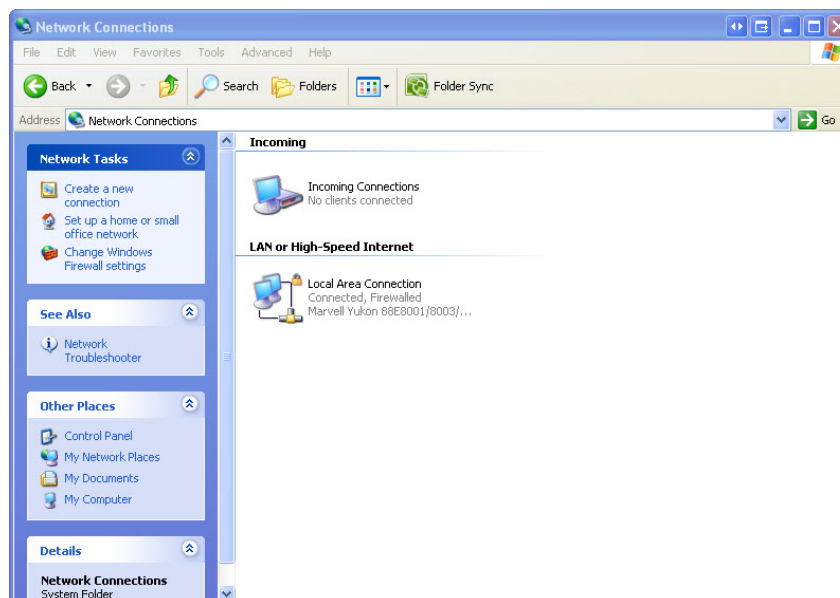


The “Routing and Remote Access Properties (Local Computer)” window now shows the Stop and Pause button active. Leave this window open.



Step 9

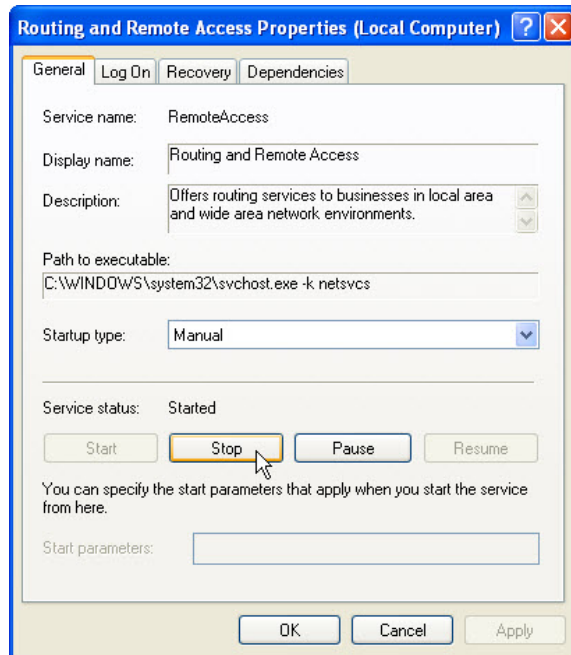
Click the “Network Connections” window so it is activated.



1. What changes appear in the right pane, after starting the Routing and Remote Access service?

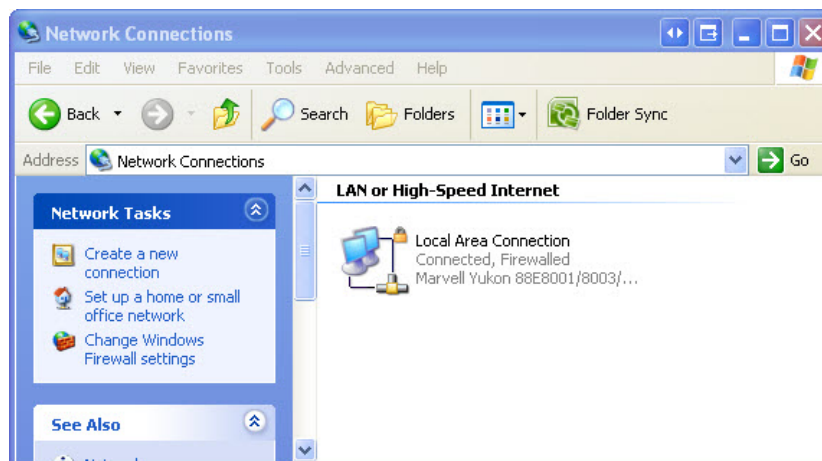
Step 10

Click the “Routing and Remote Access Properties (Local Computer)” window so it is activated. Click **Stop**.



Step 11

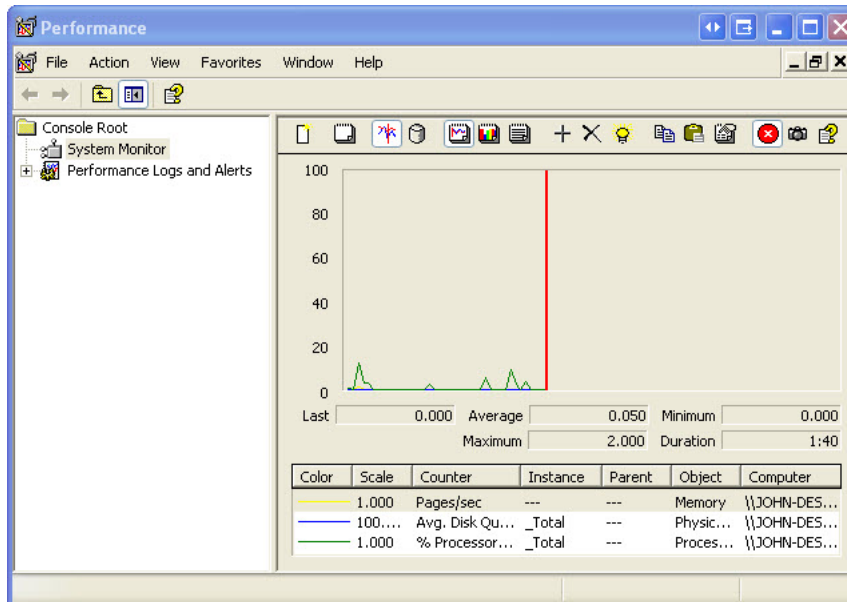
Click the “Network Connections” window so it is activated.



2. What changes appear in the right pane, after stopping the Routing and Remote Access service?

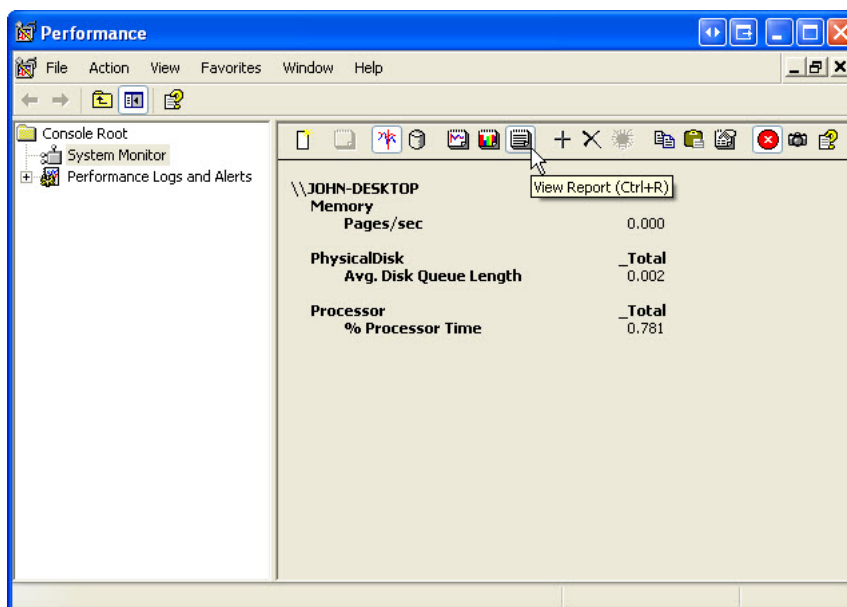
Step 12

Click the “Performance” window so it is activated. Click the **Freeze Display** icon to stop the recording.



- Which Counter is being recorded the most in the graph (hint: look at the graph color and Counter color)?

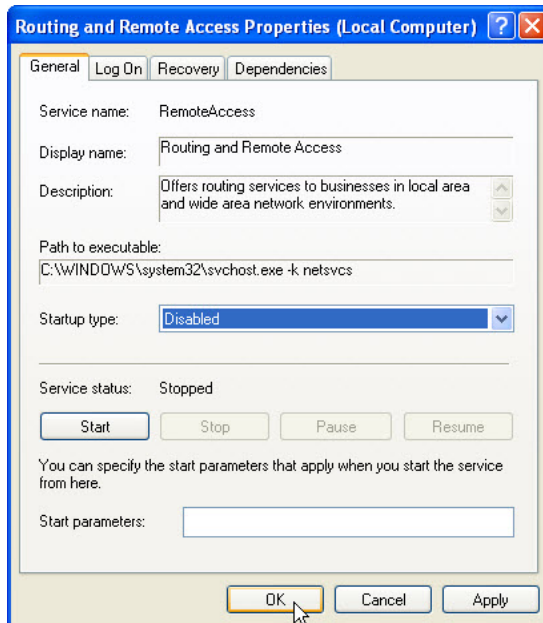
Click the **View Report** icon.



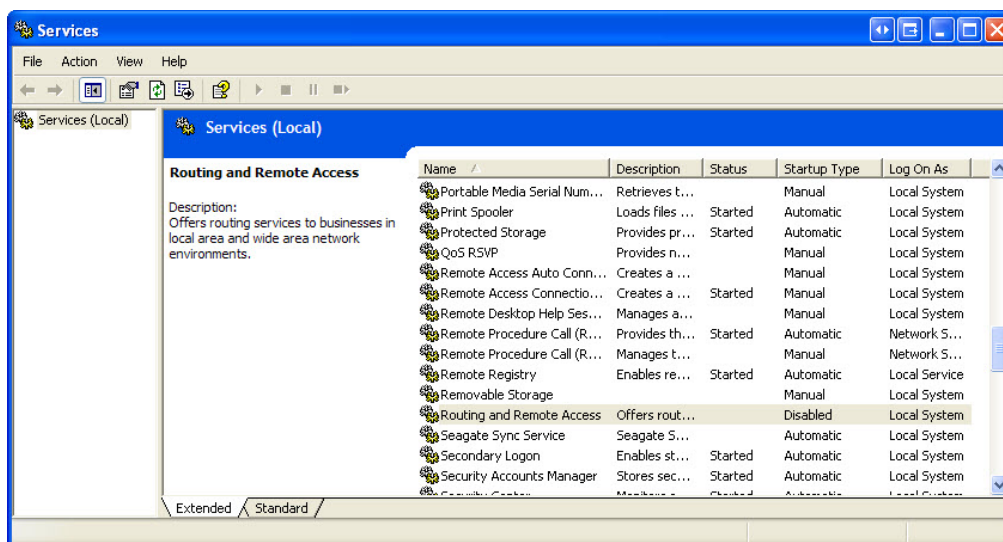
- List the values of the three counters.

Step 13

Click the “Routing and Remote Access Properties (Local Computer)” window so it is activated. In the Startup type select **Disabled**. Click **OK**.



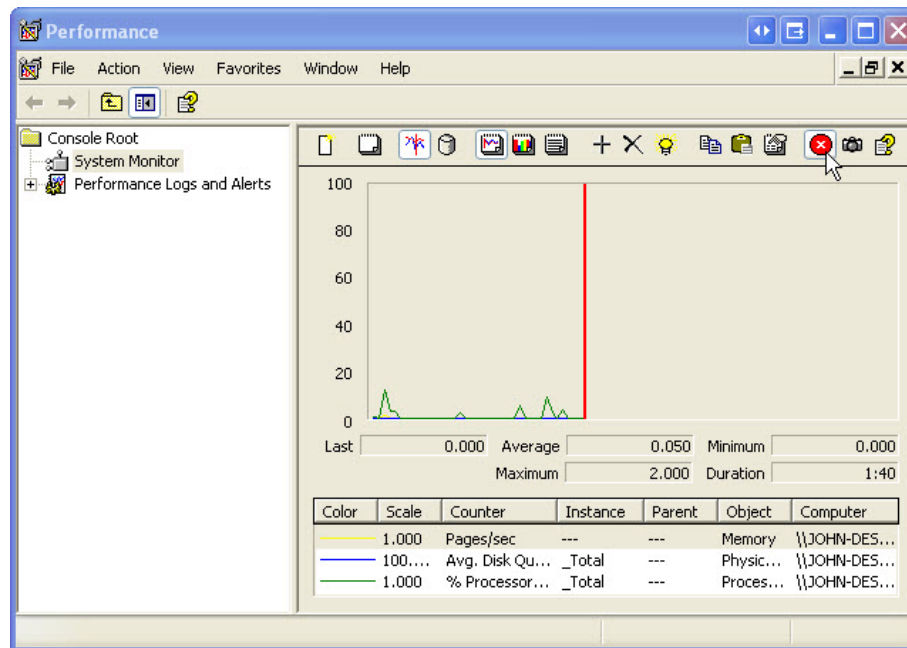
Click the “Service” window so it is activated.



- What is the Status and Startup Type for Routing and Remote Access?

Step 14

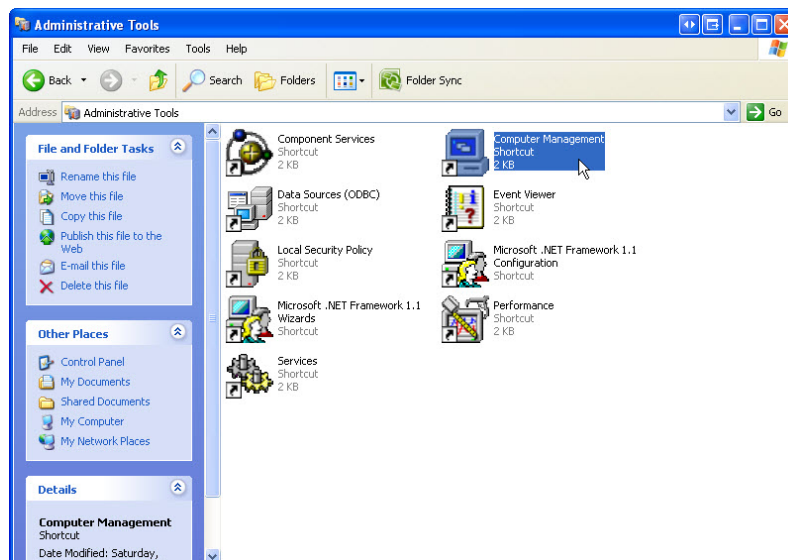
Click the “Performance” window so it is activated. Click the **Freeze Display** icon to start the recording.

**Step 15**

Close all open windows.

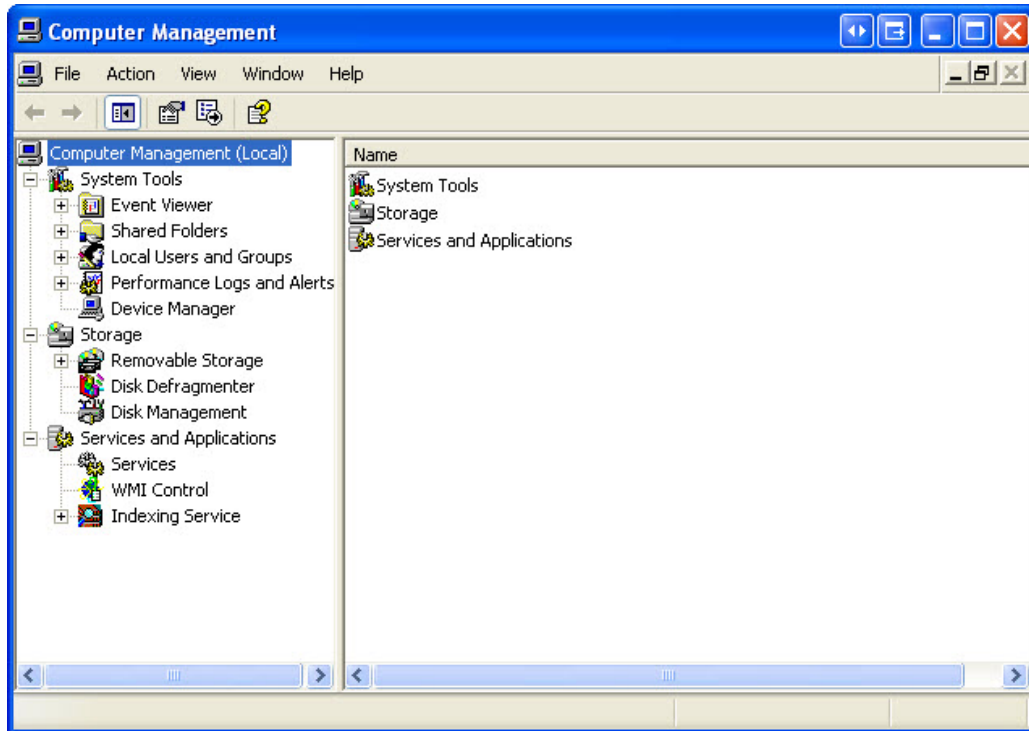
Step 16

Navigate to the “Control Panel” window by clicking **Start > Control Panel**. Double-click the **Computer Management** icon.

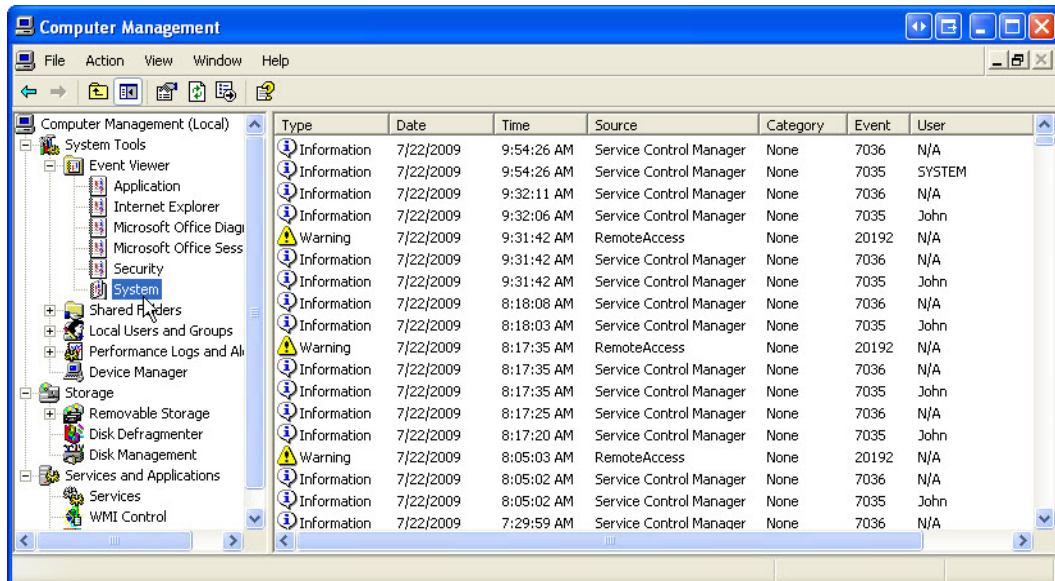


Step 17

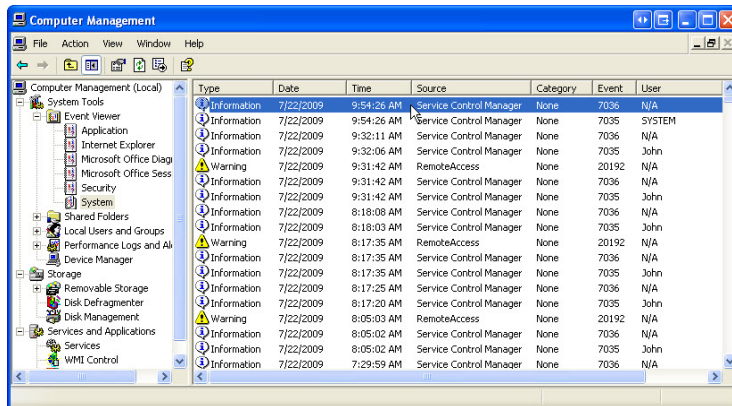
The “Computer Management” window appears. Expand the three categories by clicking on the **plus sign** next to: System Tools, Storage and Services, and Applications.

**Step 18**

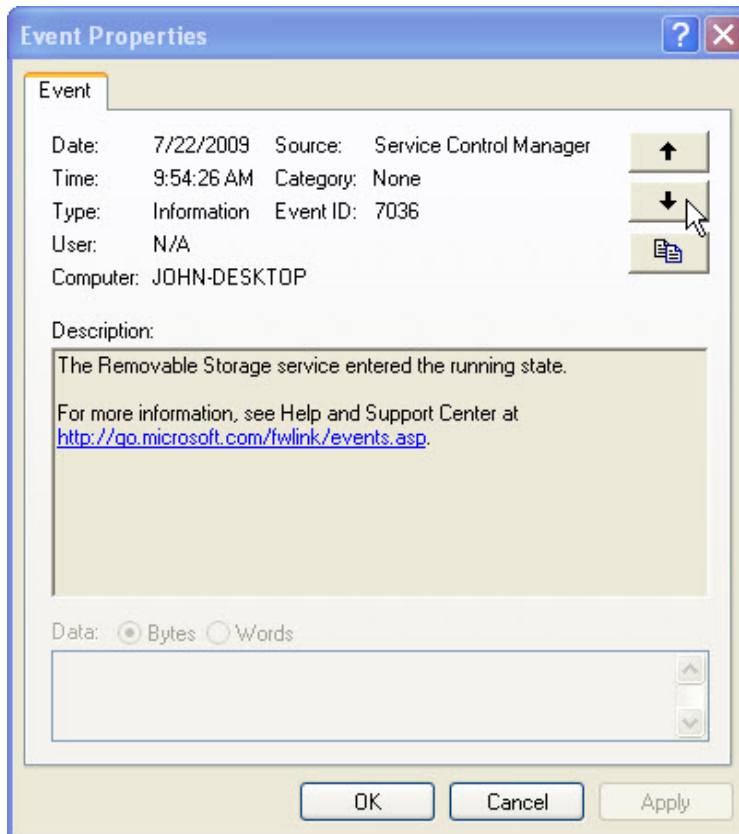
Click the **plus sign** next to Event Viewer. Then click on **System**.



Double click the first event in the window.



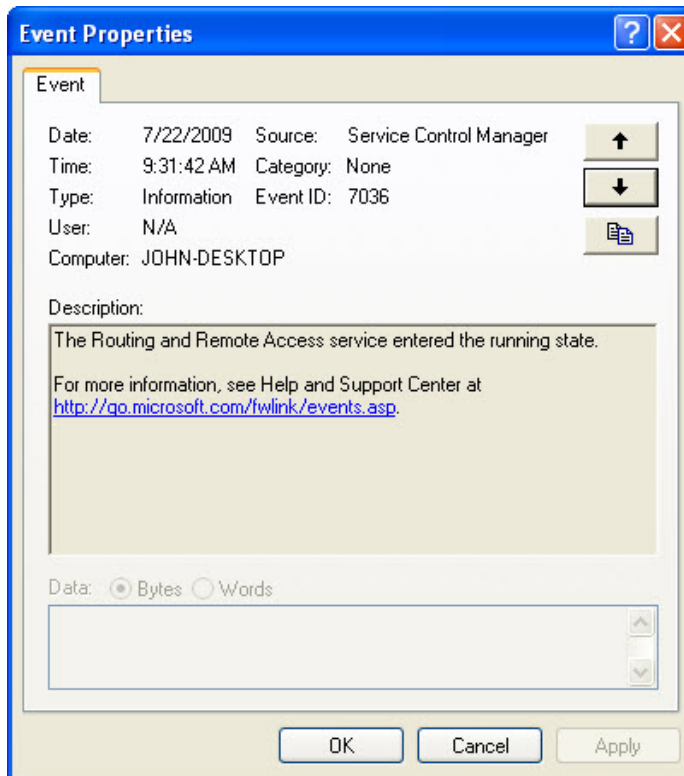
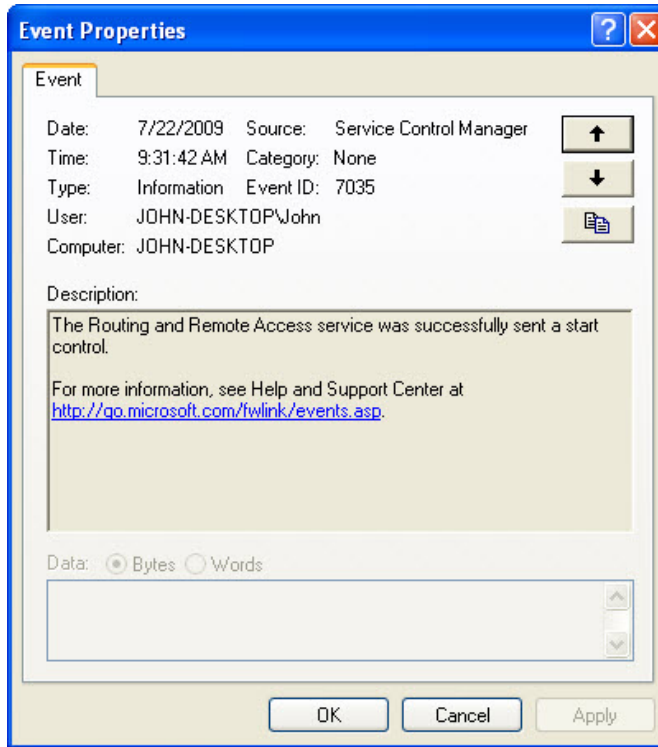
The “Event Properties” window appears for the event. Click the down arrow key to locate an event for Routing and Remote Access.

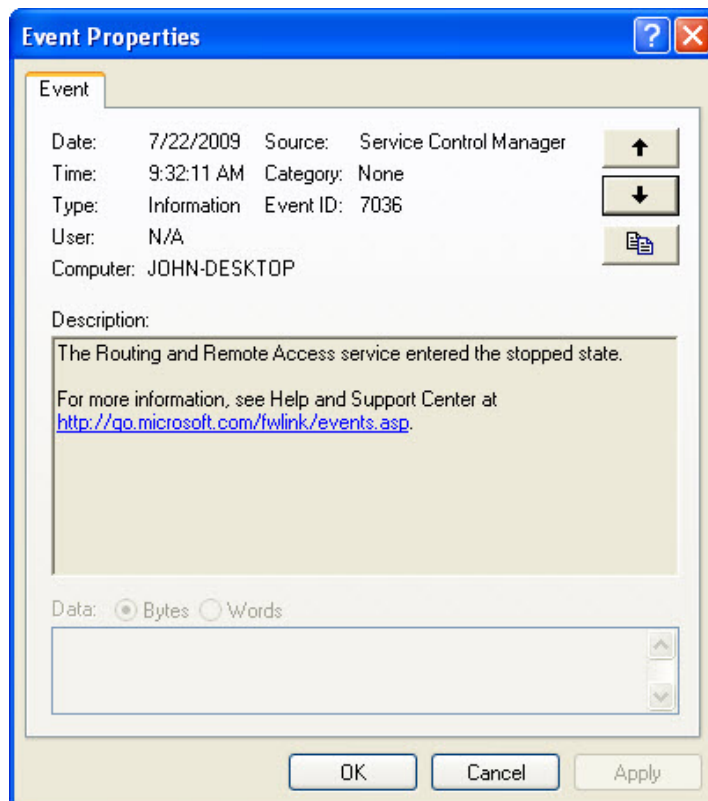
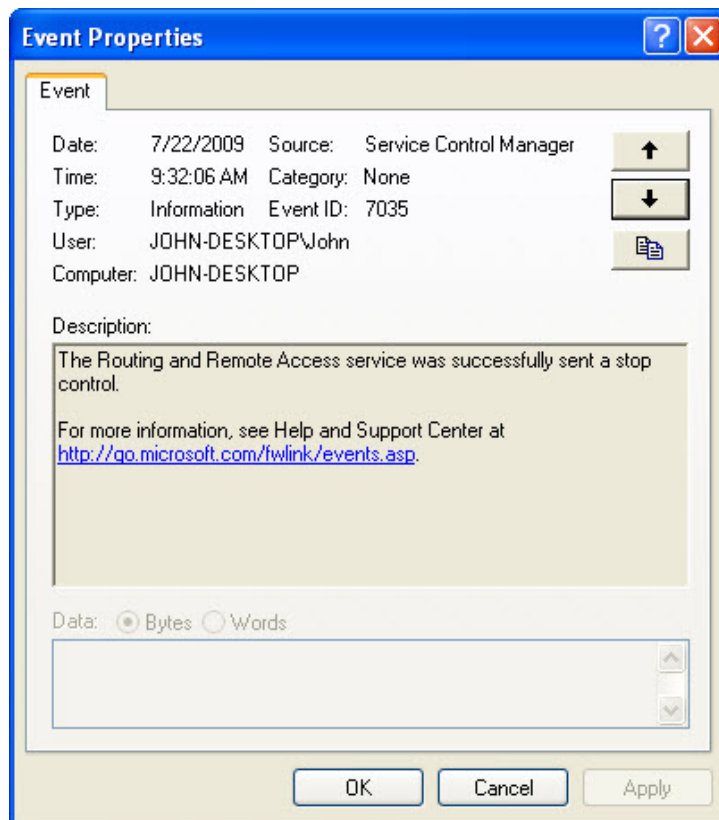


Step 19

You should find four events that describe the order for starting and stopping the Routing and Remote access service.

Write down the description for each of the four events. Do not include any URL information.



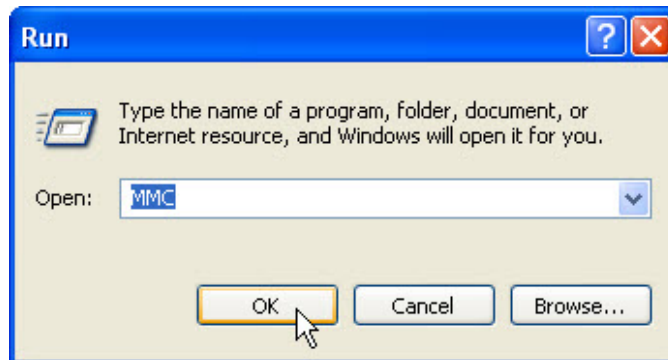


Step 20

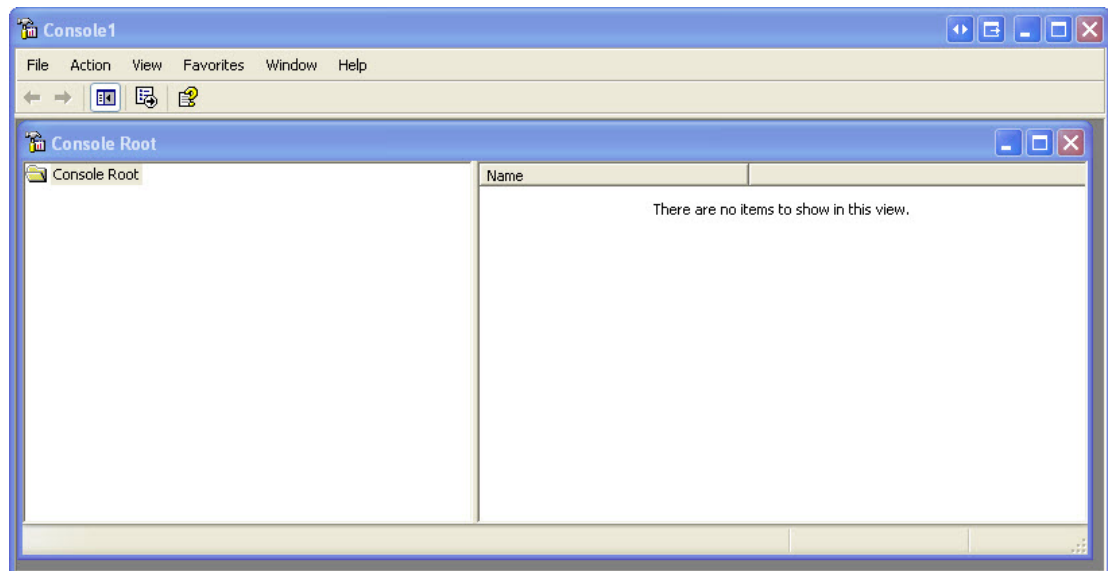
Close all open windows.

Step 21

Navigate to the “Run” window by clicking **Start > Run**. Type **MMC** and click **OK**.

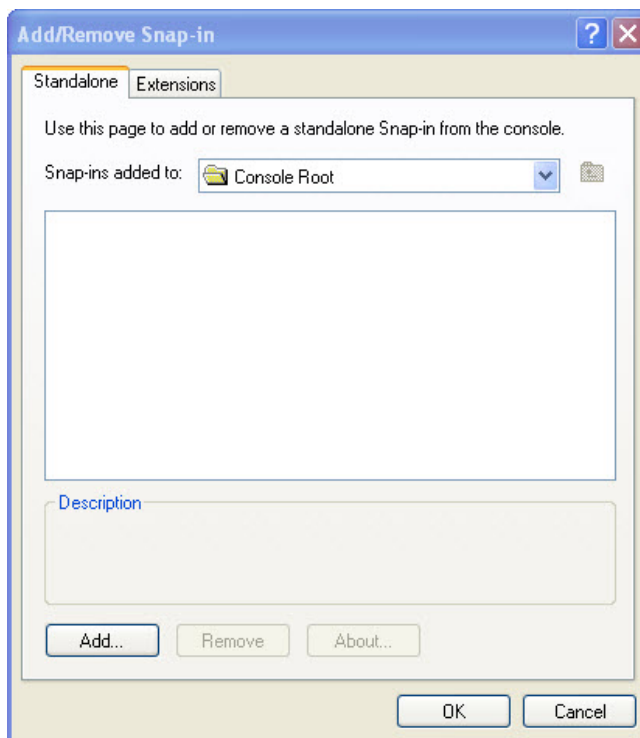
**Step 22**

The “Console1” (console number may vary) window and the Console Root window appear.

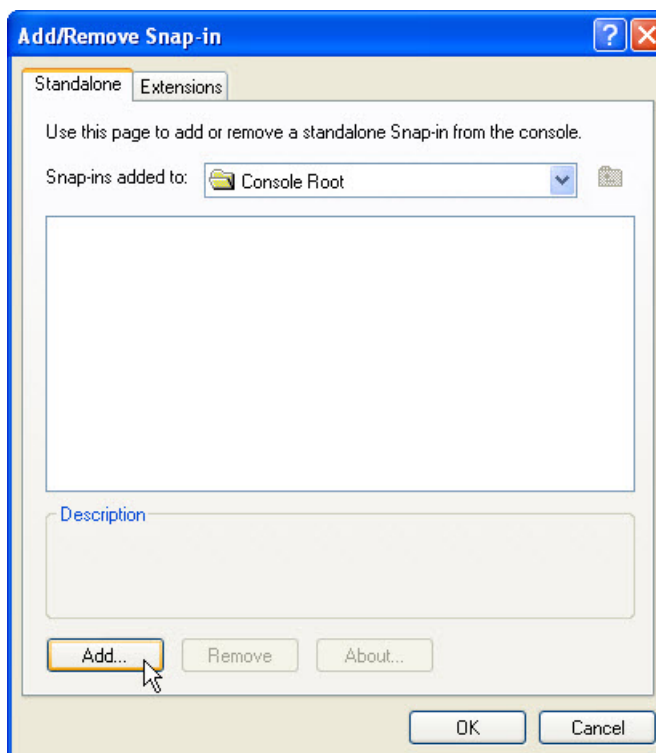


Step 23

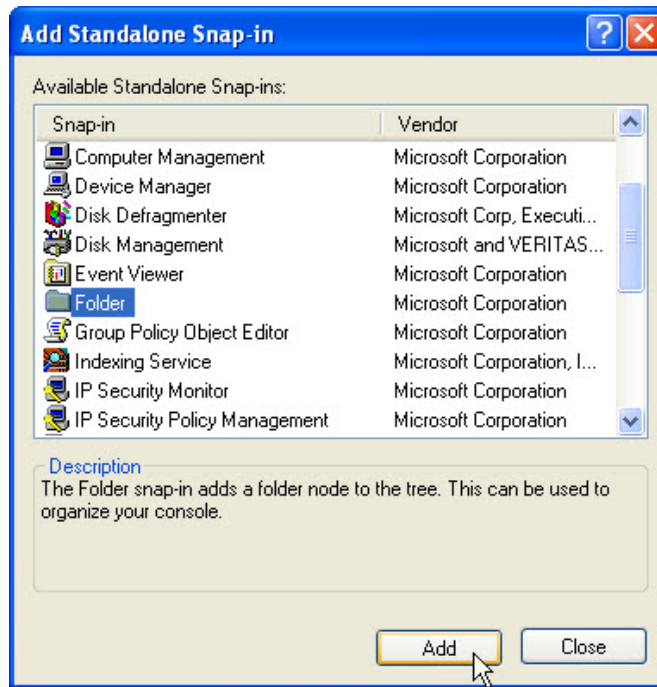
To build your own custom console click **File > Add/Remove Snap-in**. The “Add/Remove Snap-in” window appears.



To add a snap-in click **Add**.



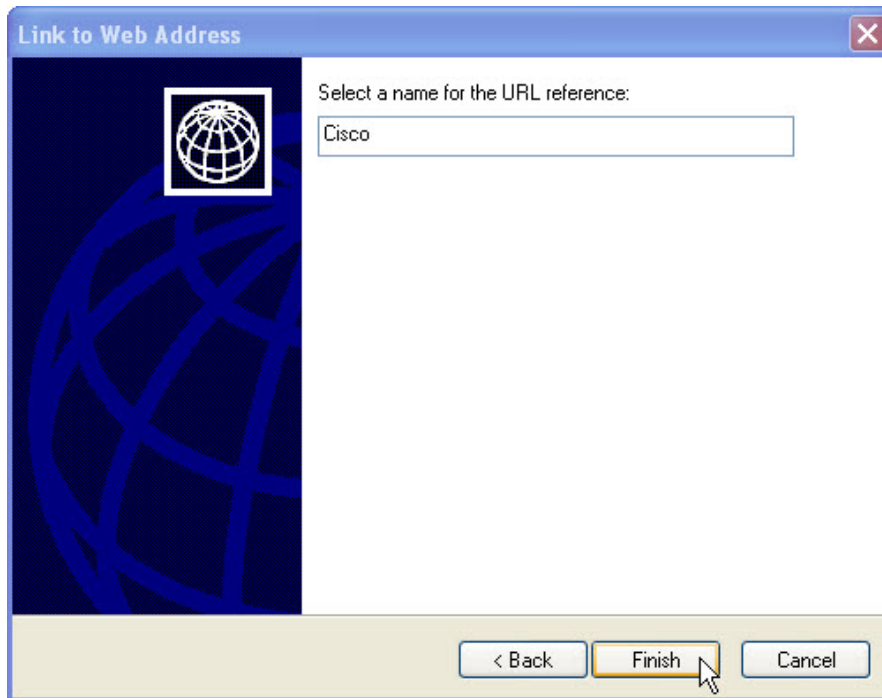
The “Add Standalone Snap-in” window appears. To add a folder snap-in so that you can organize all your snap-ins, scroll down until you see the Folder snap-in. Select **Folder** > click **Add**.



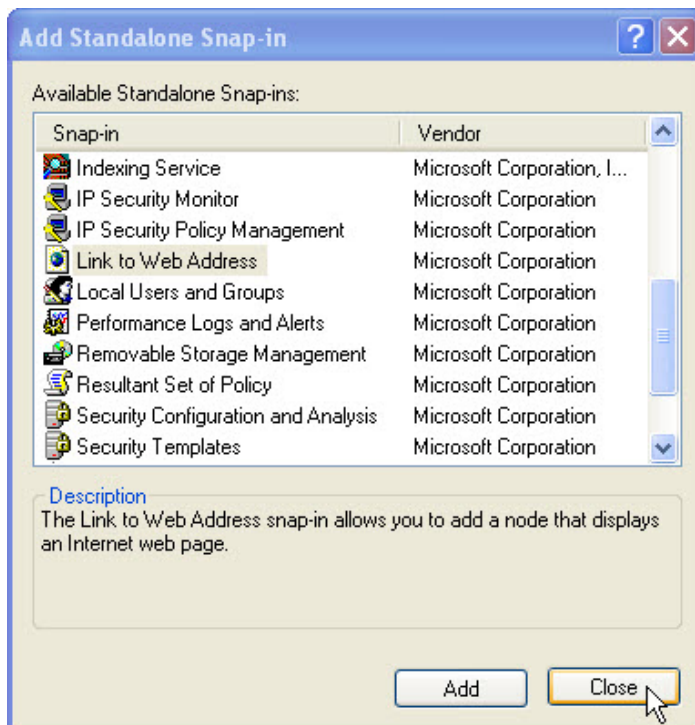
To add the “Link to Web Address” snap-in, scroll down until you see the snap-in. Select **Link to Web Address** > click **Add**. The “Link to Web Address” wizard opens. In the Target box type **http://www.cisco.com/**. Click **Next**.



In the “Select a name for the URL reference” box type **Cisco**. Click **Finish**.

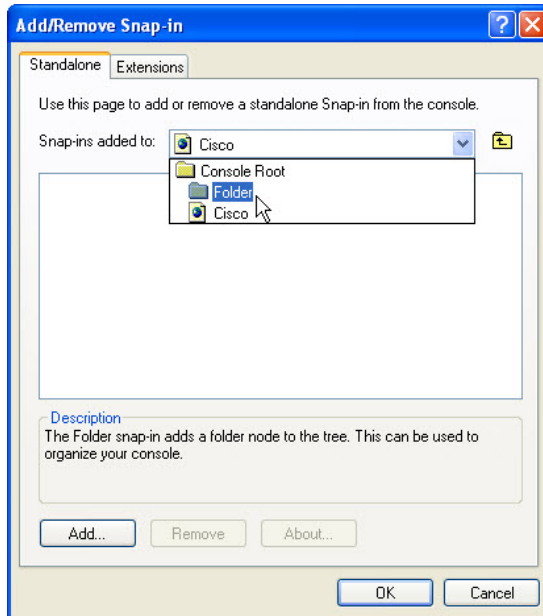


To close the "Add Standalone Snap-in" window, click **Close**.



Step 24

Click the “Add/Remove Snap-in” window so it is activated. In the “Snap-ins added to” box select **Folder**. Click **Add**.

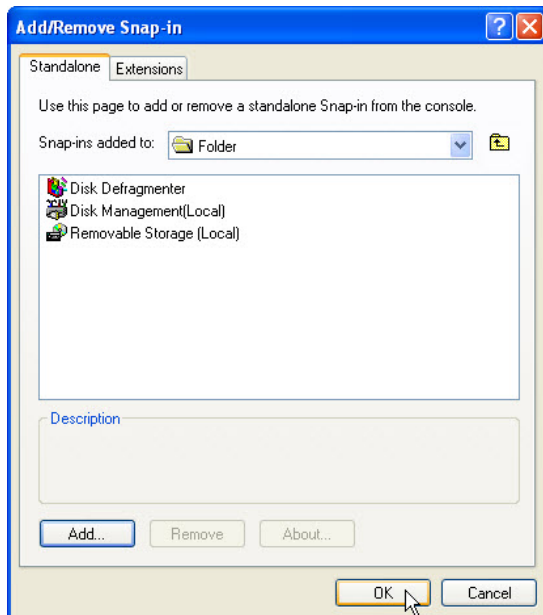


Add these snap-ins: Disk Defragmenter, Disk Management, and Removable Storage Management.

Note: When asked what computer the snap-in will manage; select the default by clicking **Finish**.

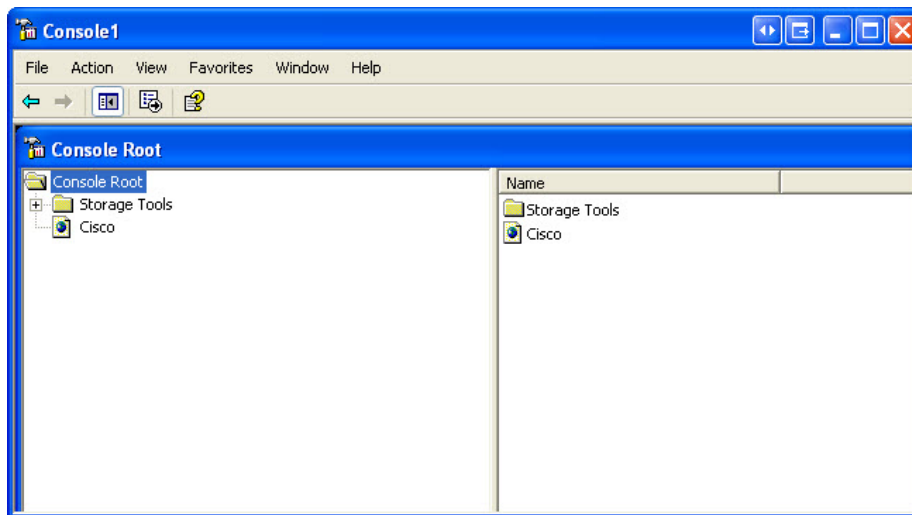
To close the “Add Standalone Snap-in” window, click **Close**.

Click the “Add/Remove Snap-in” window so it is activated. Click **OK**.



Step 25

The “Console1” window appears. Right click the Folder icon and select Rename. Change the name of the folder to Storage Tools.



To save the custom console click **File > Save As**. Change the file name to your name. Example: **John's Console**. Change the “Save in” box to **Desktop**. Click **Save**.

Step 26

Close all open windows.

On the desktop double click the **Console** icon to re-open the console with your snap-ins.



5.5.4 Lab: Install Third-Party Software in Windows XP

Introduction

Print and complete this lab.

In this lab, you will install and remove a third party software application by using the Microsoft Windows XP Professional Installation CD. The student will install the CITRIX ICA 32-bit Windows Client application.

Recommended Equipment

The following equipment is required for this exercise:

- A computer system that is using Windows XP
- A Microsoft Windows XP installation CD

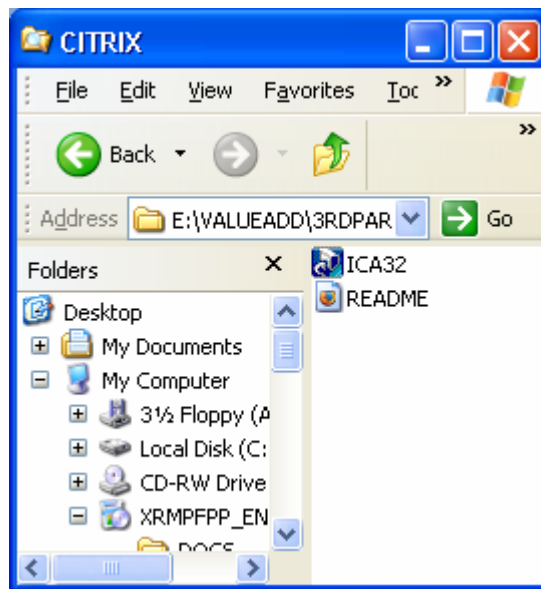
Step 1

Log on to the computer with the Administrator account.

Place the Windows XP Professional installation CD into the CD drive. Use Windows Explorer to navigate to the following folder:

D:\VALUEADD\3RDPARTY\MGMT\CITRIX

Locate the ICA32.exe application in the folder. Click the ICA32 icon to start the installation process of the Citrix application. You may need to double-click the icon to start the installation.



Step 2

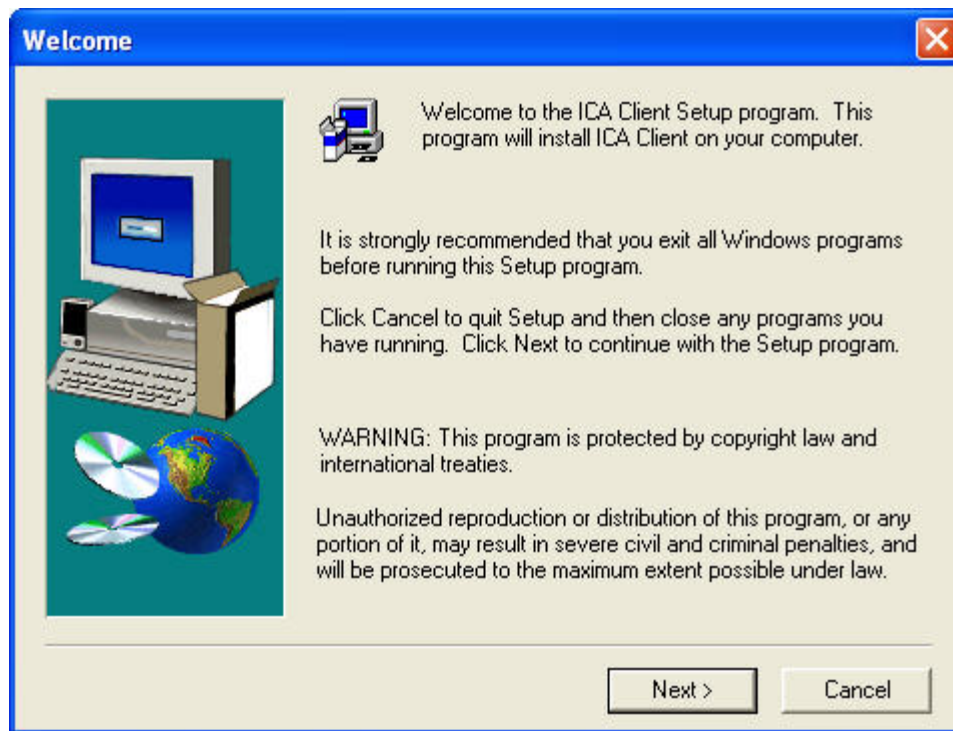
Click Next when the InstallShield Wizard window opens.



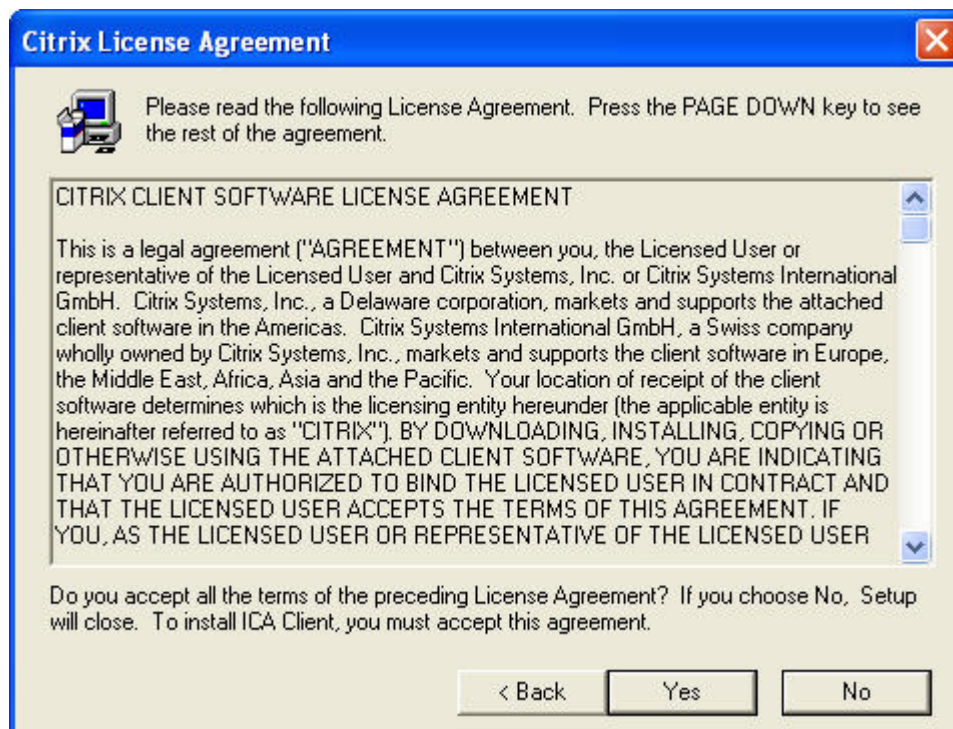
A window opens displaying the file extraction progress.



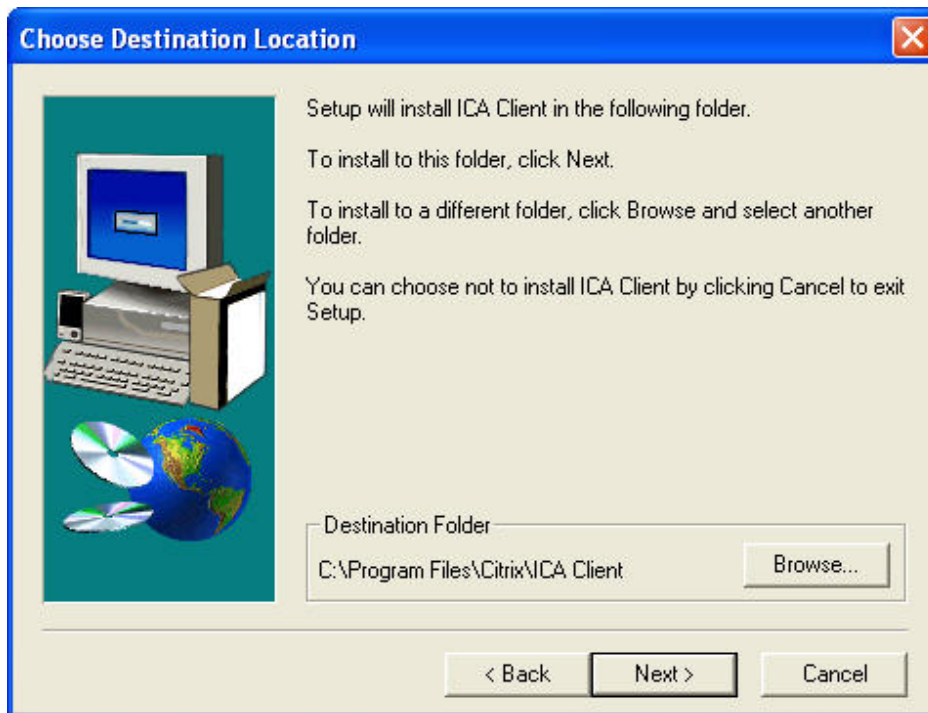
After the files have been extracted, the ICA Client Setup program begins. Click **Next** to begin the installation.



Click **Yes** on the License agreement.



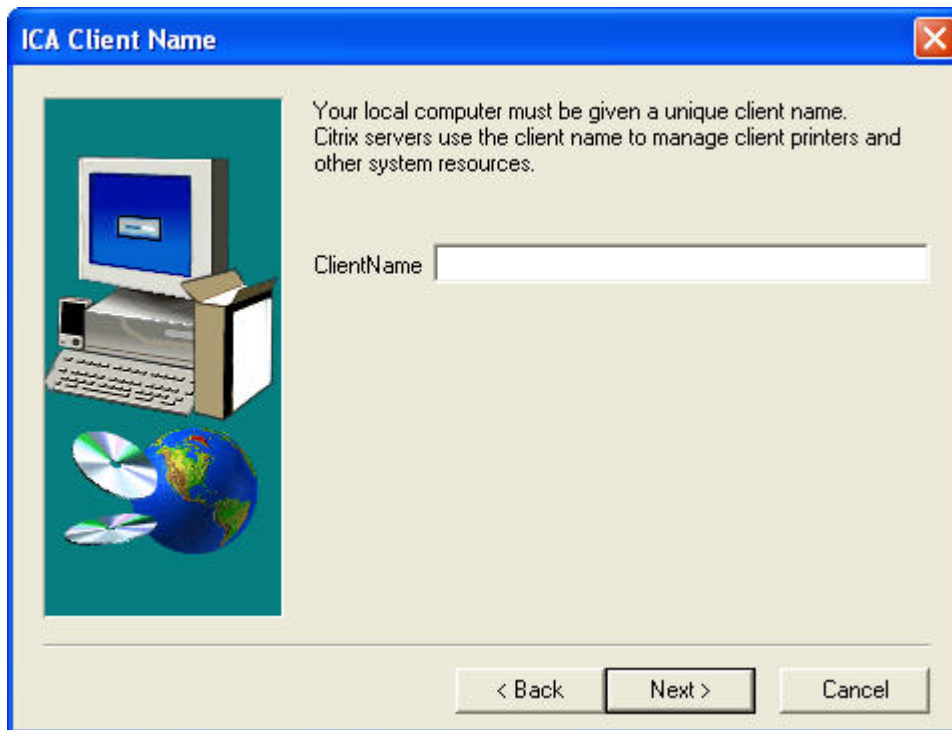
Use the default location. Click **Next**.



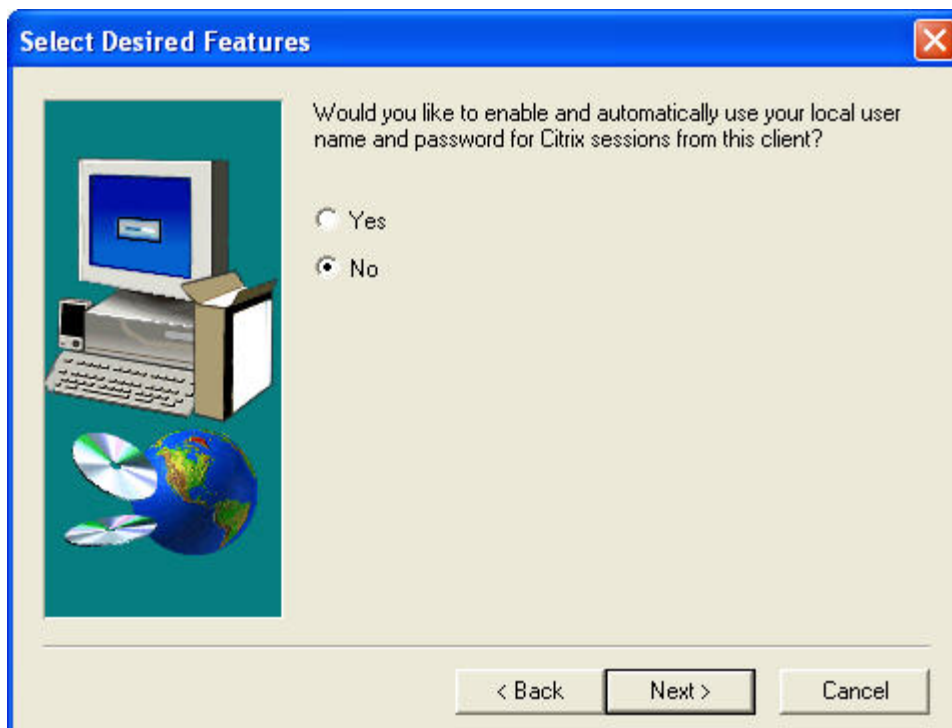
Use the default location. Click **Next**.



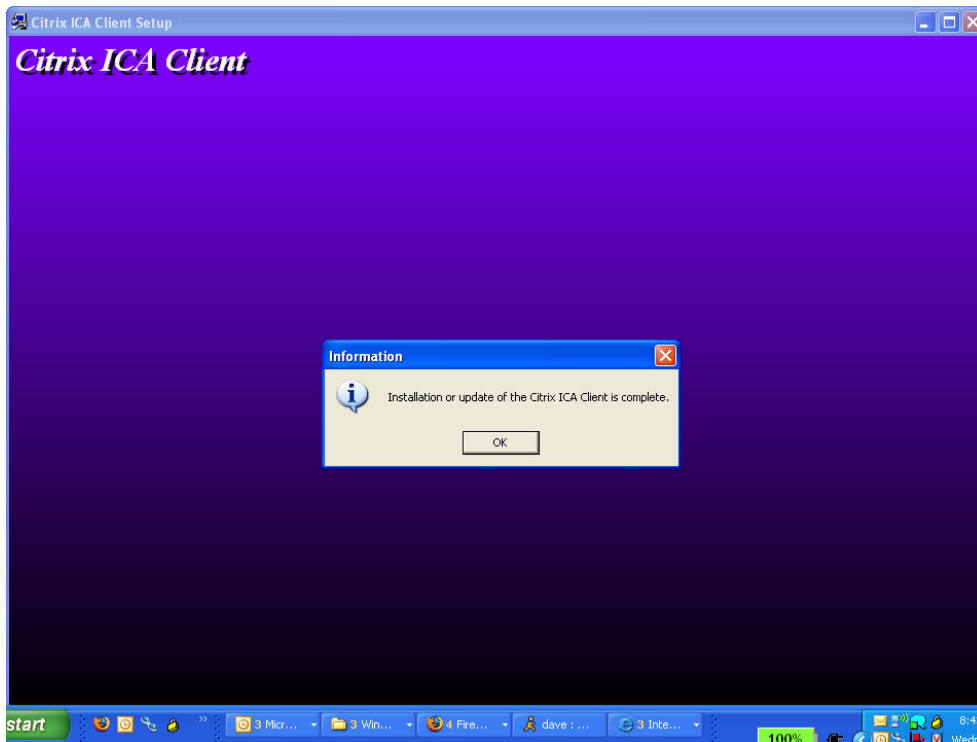
Enter “student” as the ClientName. Click **Next**.



In the Select Desired Features window, leave the default choice of **No**. Click **Next**.

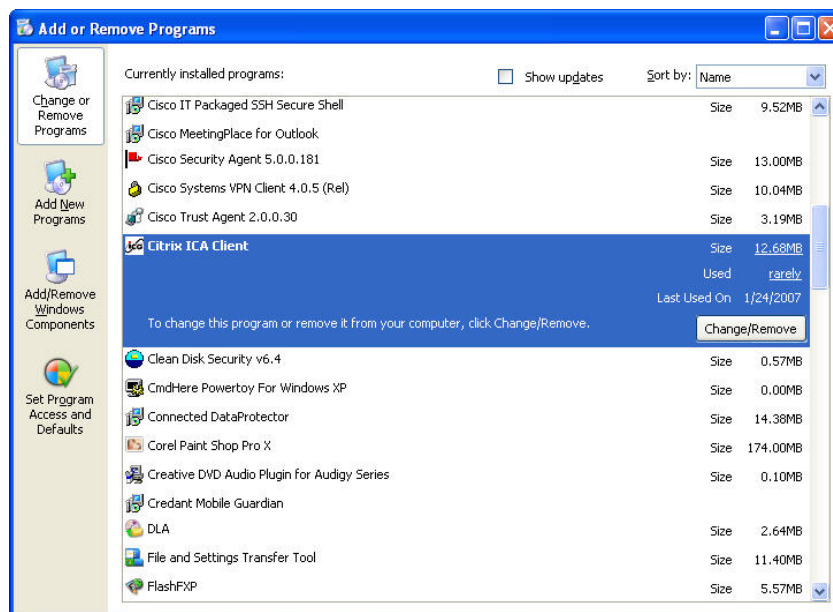


You have successfully installed the Citrix program.

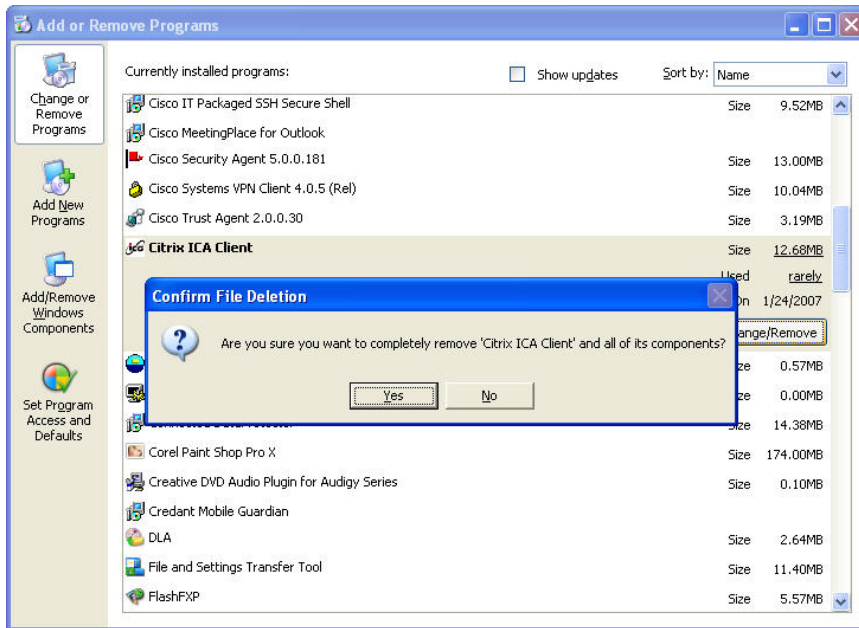


Step 3

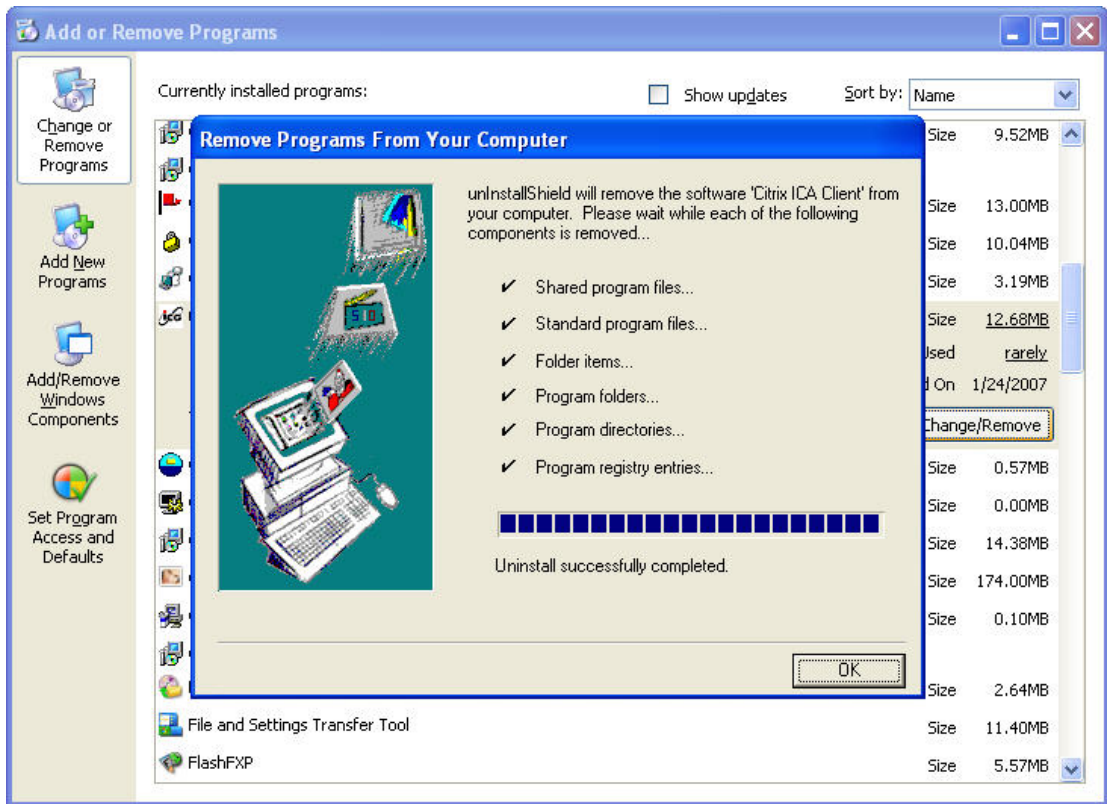
To uninstall a program, choose **Start > Control Panel > Add or Remove Programs**. Click the Citrix ICA Client in the list. Click **Change/Remove**.



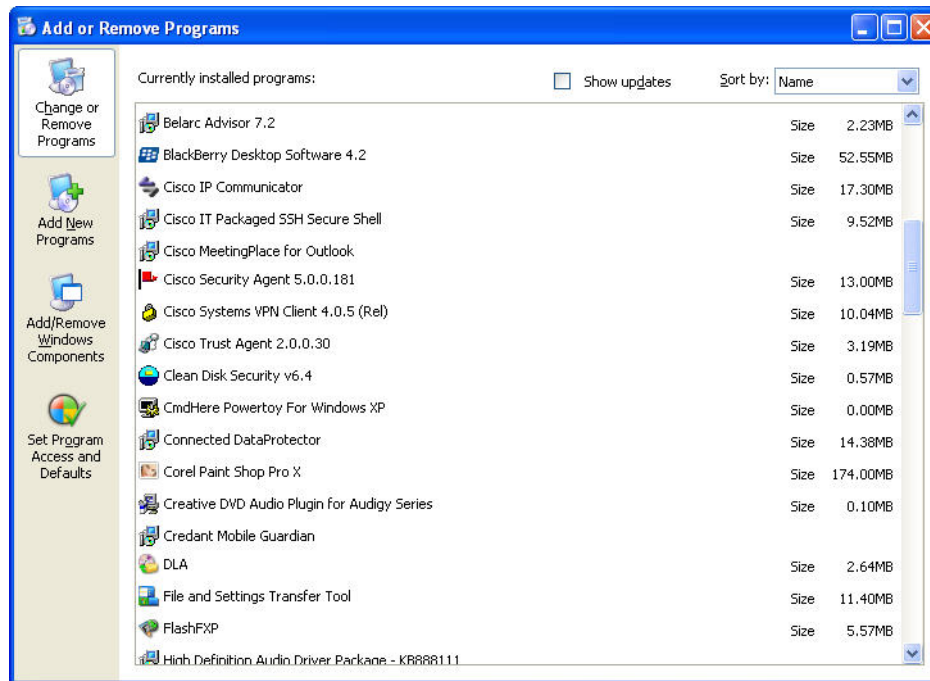
Click **Yes** to confirm the removal.



The following screen will appear displaying the removal progress:



After the application removal process, the Add or Remove Programs window no longer shows the Citrix ICA Client in the list.



1. Why does Microsoft recommend using Add/Remove Programs to remove an installed application?

5.6.2 Lab: Restore Points in Windows XP

Introduction

Print and complete this lab.

In this lab, you will create a restore point and return your computer back to that point in time.

Recommended Equipment

The following equipment is required for this exercise:

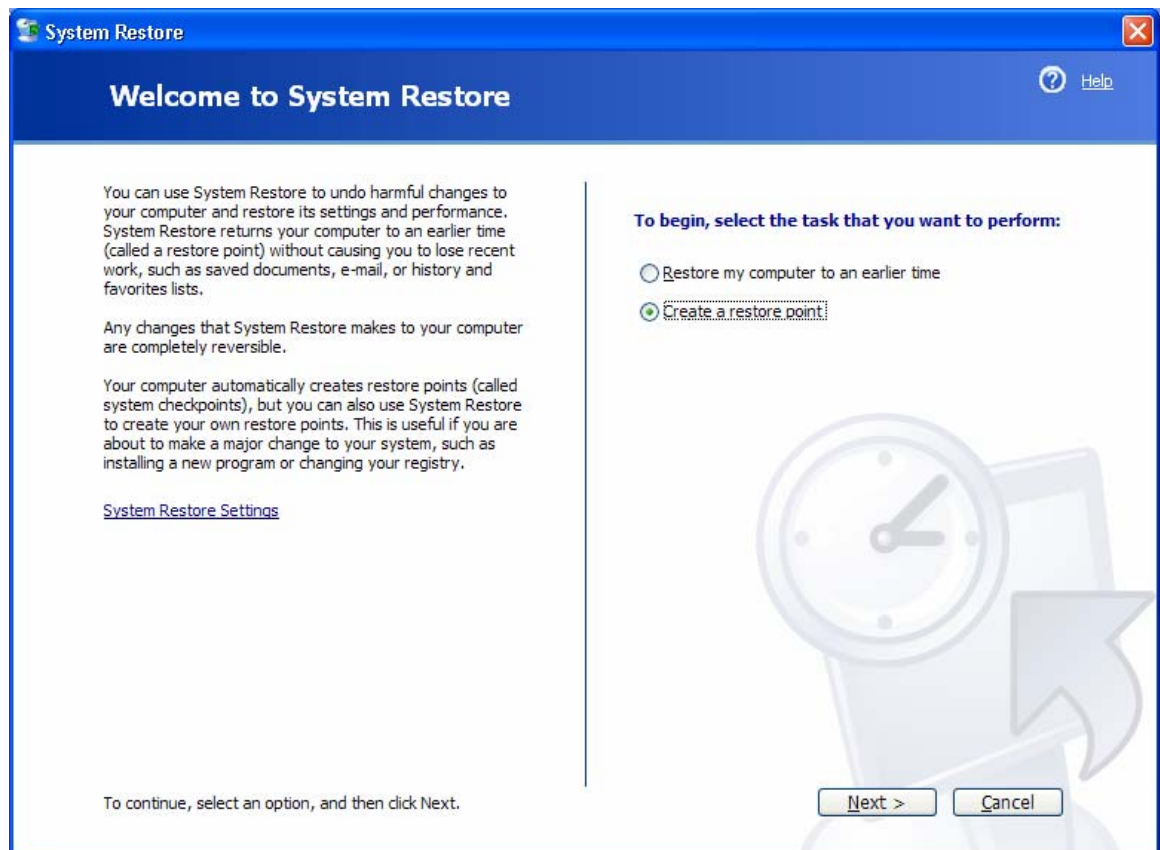
- A computer system running Windows XP
- The Windows XP installation CD

Step 1

Click **Start > All Programs > Accessories > System Tools > System Restore**.

Click the **Create a restore point** radio button.

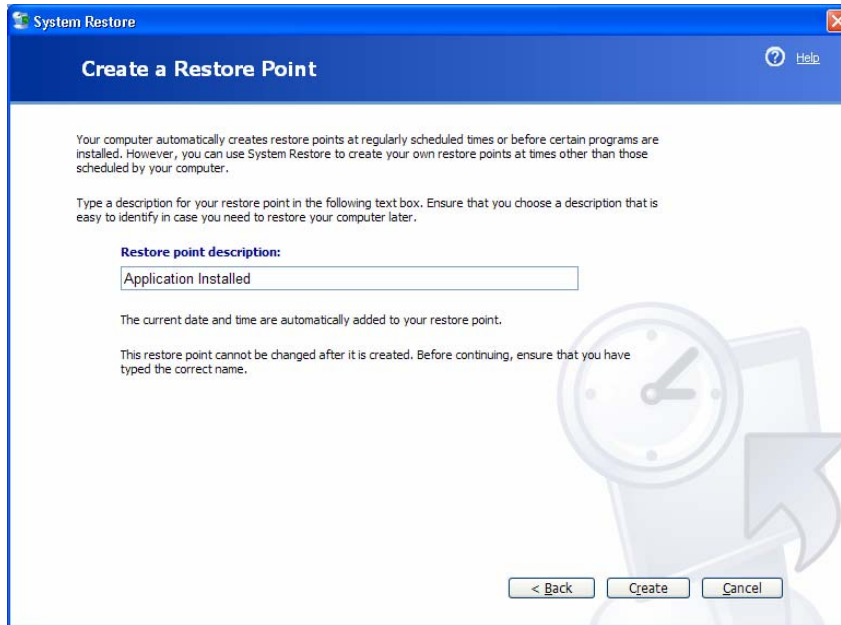
Click **Next**.



Step 2

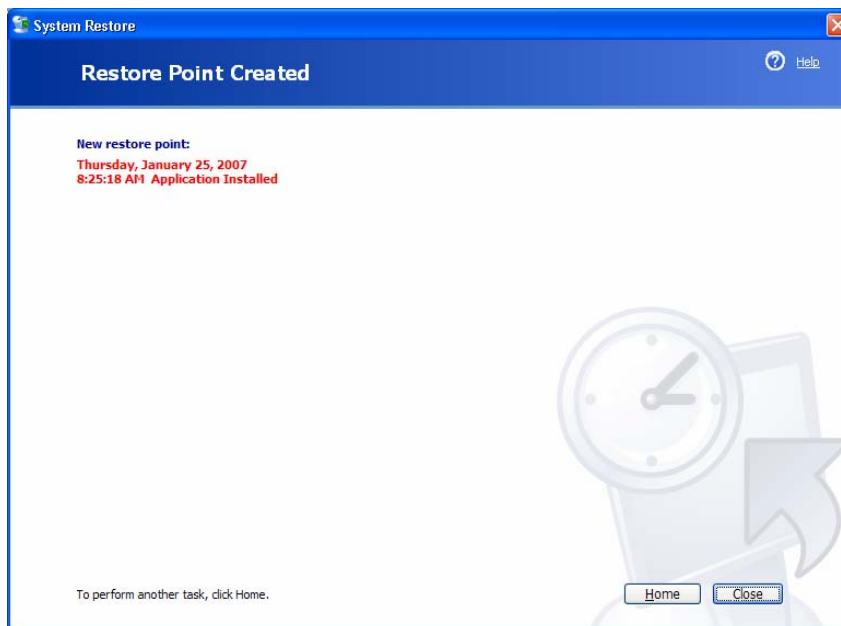
In the “Restore point description” field, type **Application Installed**.

Click **Create**.

**Step 3**

The “Restore Point Created” window appears.

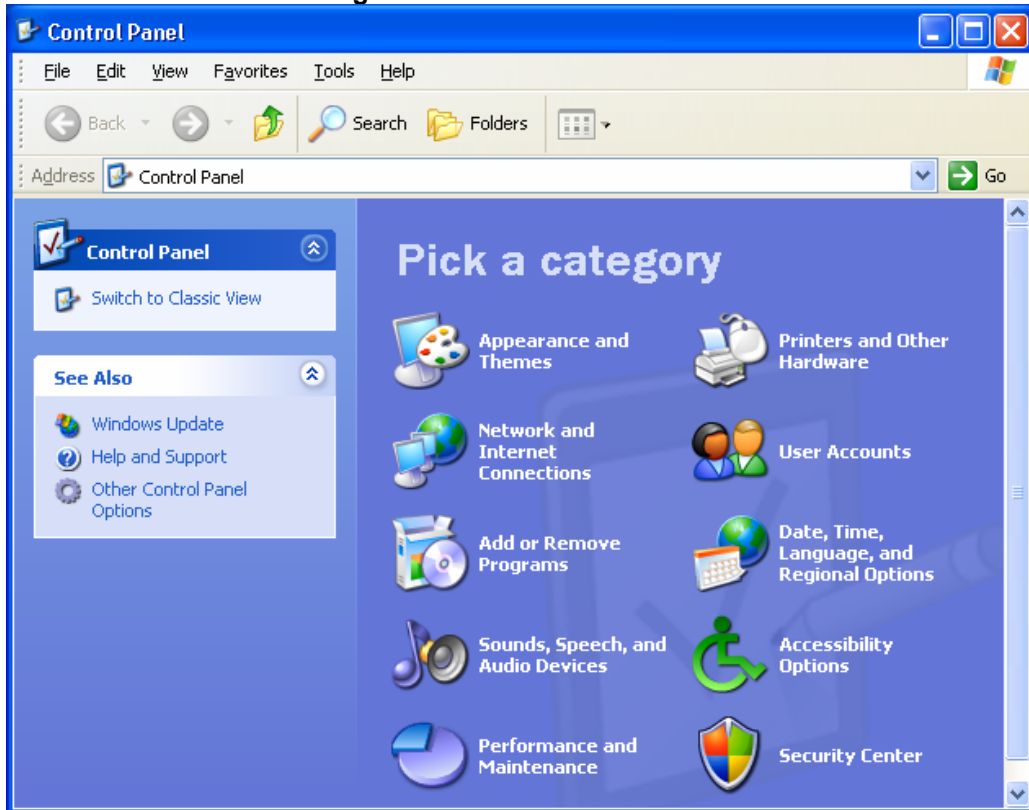
Click **Close**.



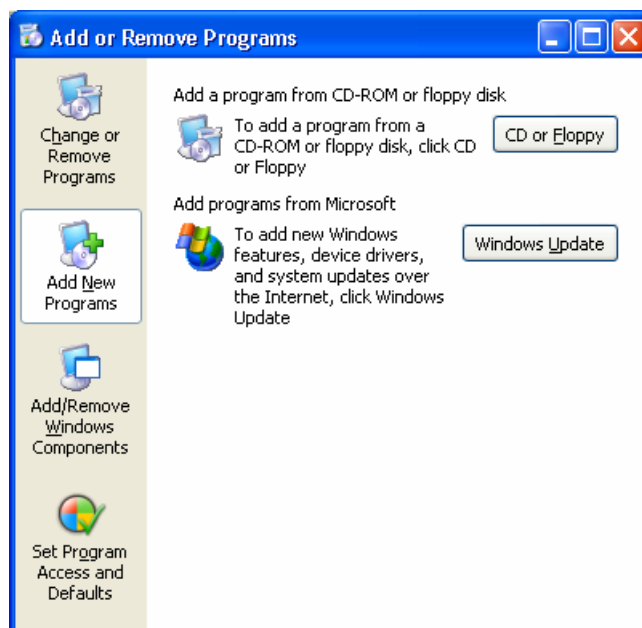
Step 4

Click **Start > Control Panel > Add or Remove Programs**.

Click the **Add or Remove Programs** icon.

**Step 5**

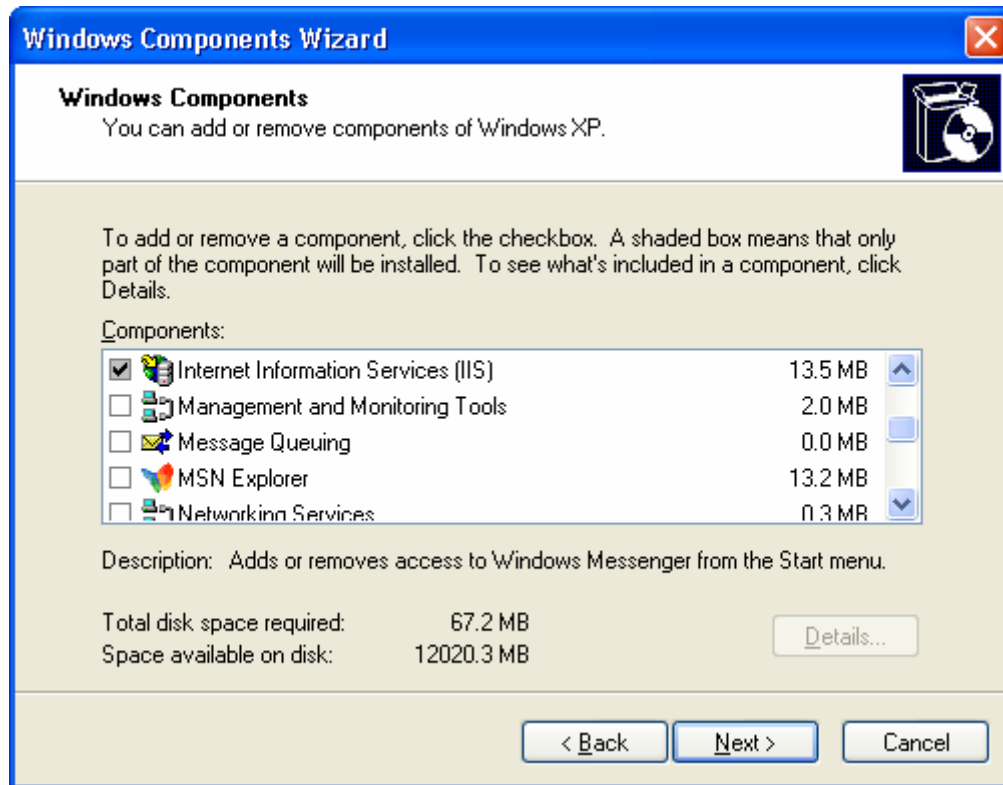
Click **Add/Remove Windows Components**.



Step 6

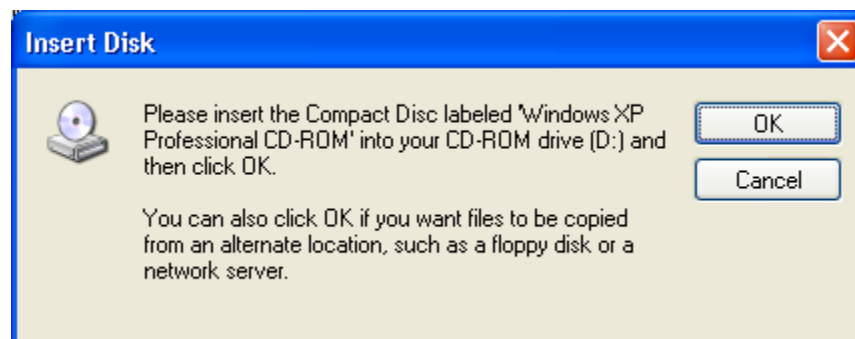
Click the **Internet Information Services (IIS)** checkbox.

Click **Next**.

**Step 7**

Place the Windows XP installation CD into the optical drive.

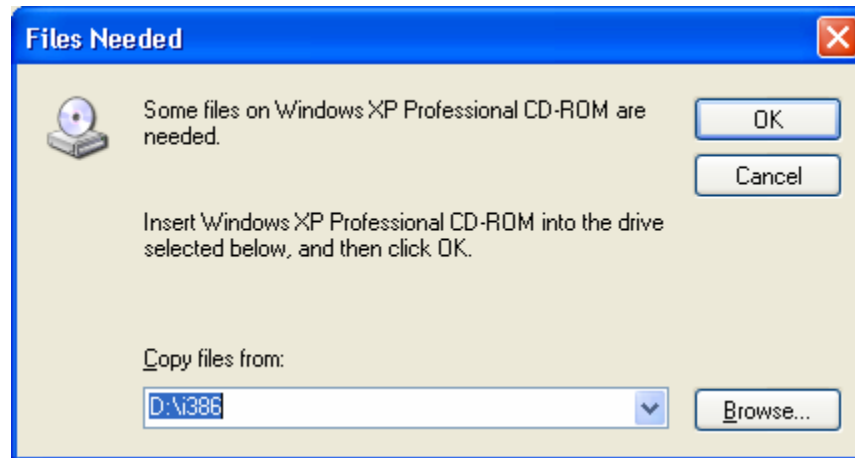
Click **OK**.



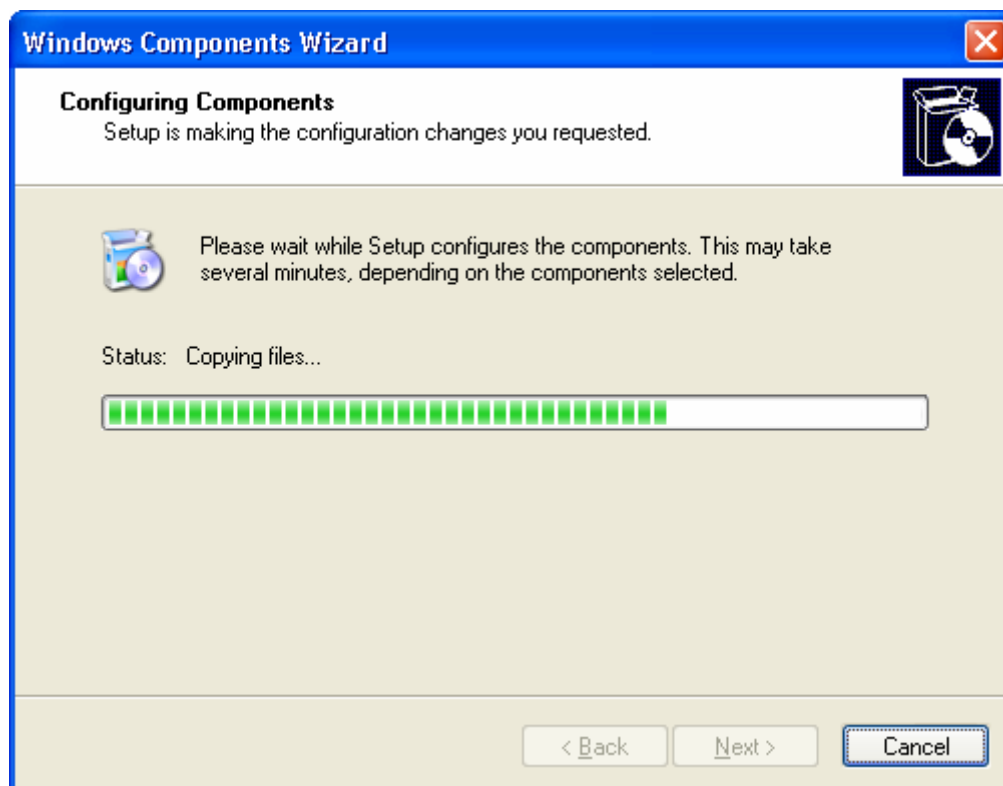
Step 8

The “Files Needed” window appears.

Click **OK**.



The “Configuring Components” progress window appears.



Step 9

The “Completing the Windows Components Wizard” window appears.

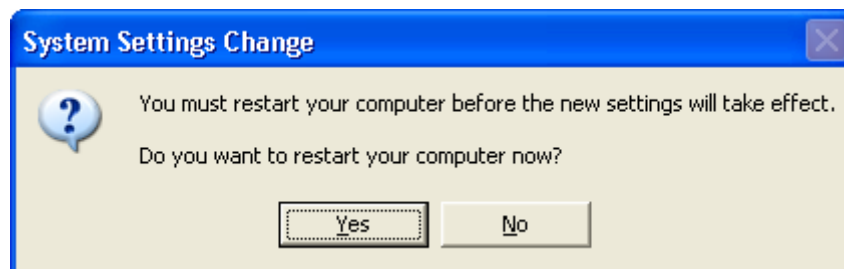
Click **Finish**.

**Step 10**

The “System Settings Change” dialog box appears.

Remove the Windows XP installation disk from the optical drive.

Click **Yes**.



Step 11

Log on to Windows as yourself.

Open the Notepad application by clicking **Start > All Programs > Accessories > Notepad**.

Type **This is a test of the Restore Points** in the Notepad application.

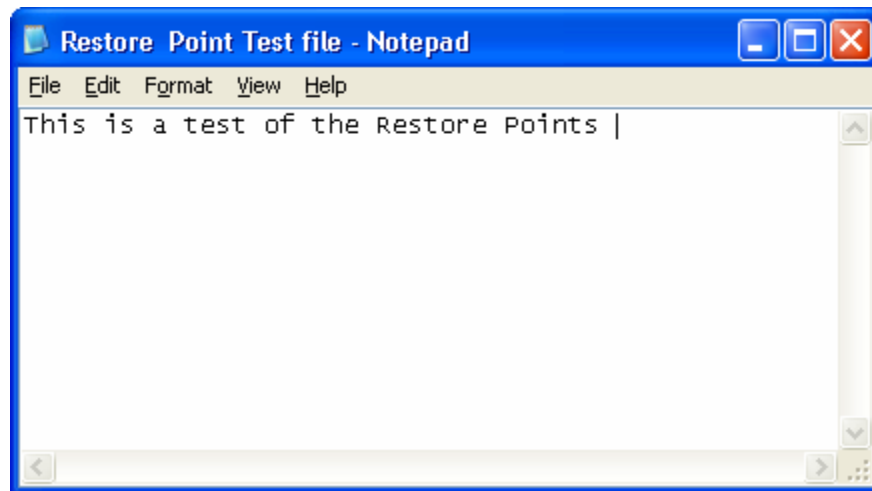
Click **File > Save As....**

Click **My Documents**.

Type **Restore Point Test file** in the "File Name:" field.

Click **Save**.

Click **File > Exit**.

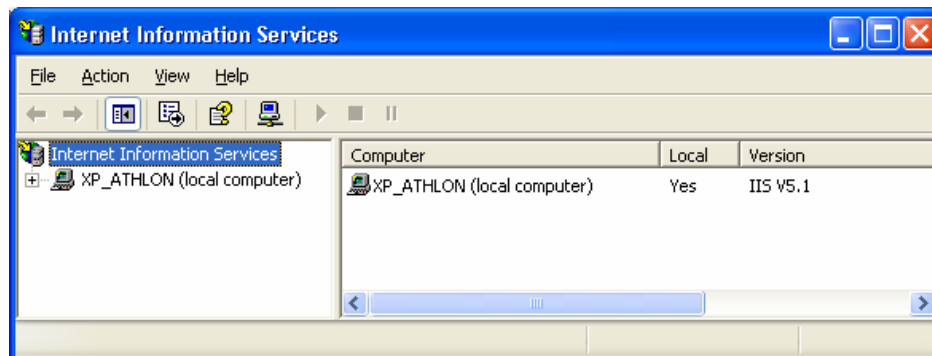


Step 12

Open IIS to confirm that you have successfully installed this service.

Click **Start > All Programs > Administrative Tools > Internet Information Services**.

Click **File > Exit**.

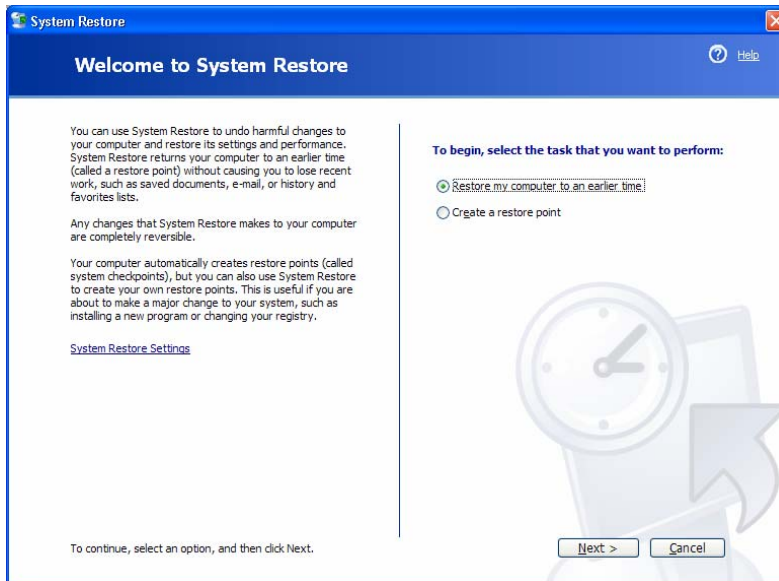


Step 13

Click **Start > All Programs > Accessories > System Tools > System Restore**.

Select the **Restore my computer to an earlier time** radio button.

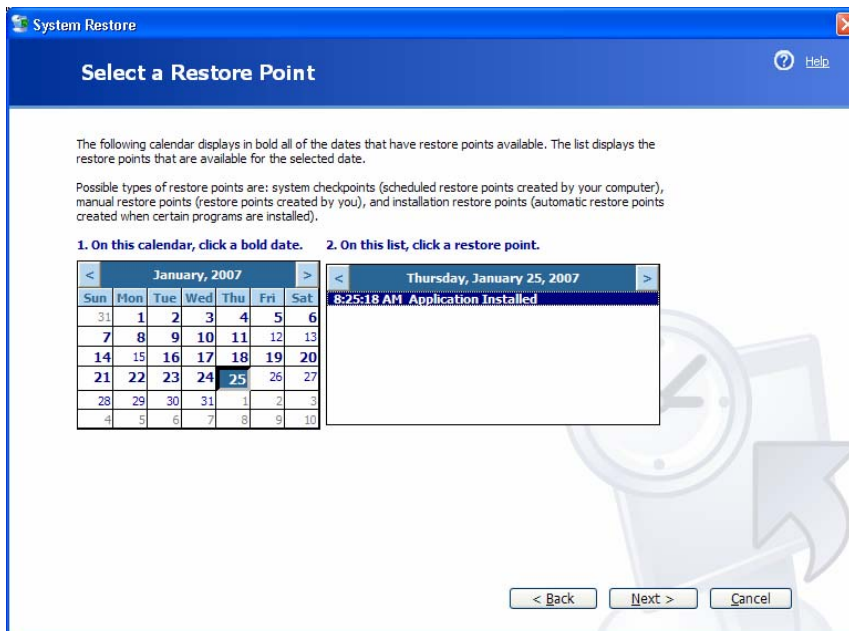
Click **Next**.

**Step 14**

Select today's date from the calendar on the left.

Select **Application Installed** from the list on the right.

Click **Next**.



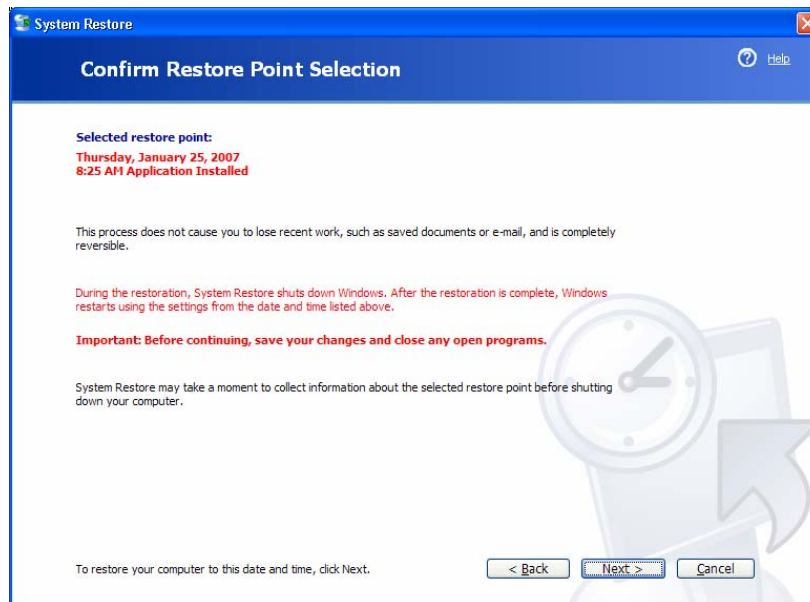
Step 15

The “Confirm Restore Point Selection” window appears.

NOTE: When you click Next, Windows will restart the computer. Close all applications before you click Next.

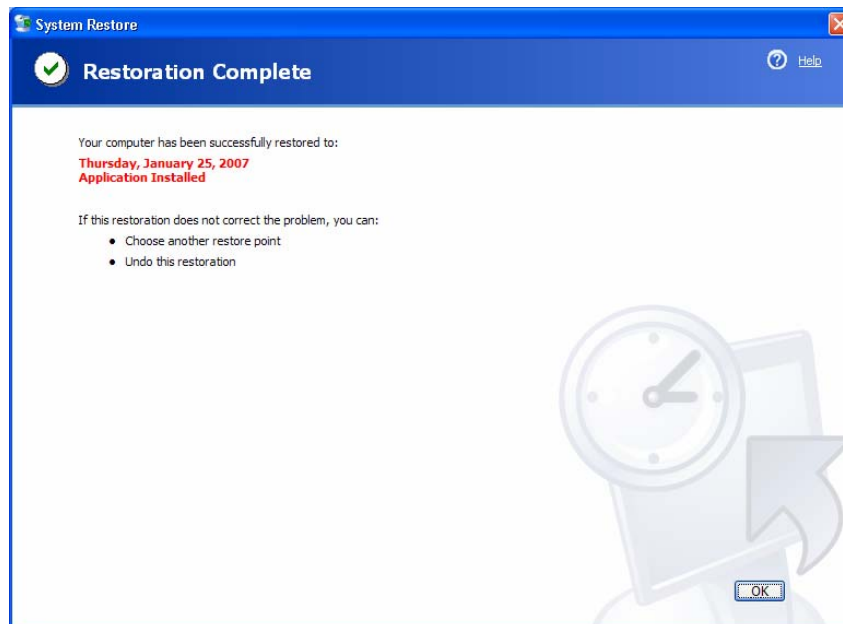
Click **Next**.

The operating system restores to the point before the IIS application was installed.



Step 16

The “Restoration Complete” window appears. Click **OK**.



Step 17

Click **Start > All Programs > Administrative Tools**.

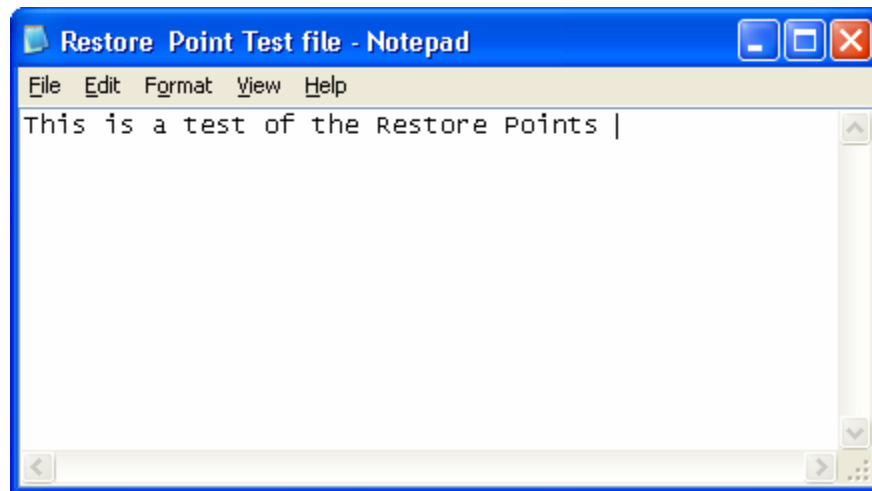
Is the Internet Information Services application listed?

Step 18

Navigate to the "My Documents" folder.

Open the "Restore Point Test file.txt" file.

Are the contents the same?



5.6.3 Lab: Registry Backup and Recovery in Windows XP

Introduction

Print and complete this lab.

In this lab, you will back up a computer registry. You will also perform a recovery of a computer registry. The registry is also called System State data.

Recommended Equipment

The following equipment is required for this exercise:

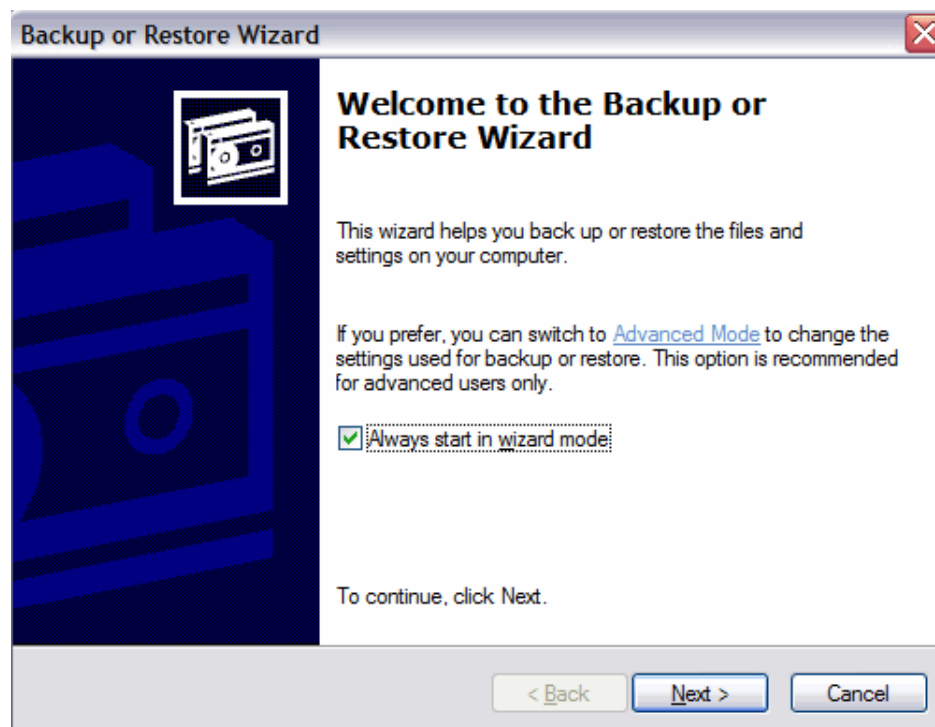
- A computer system running Windows XP is required for this exercise.

Step 1

Log on to the computer as yourself.

Click **Start > Run**.

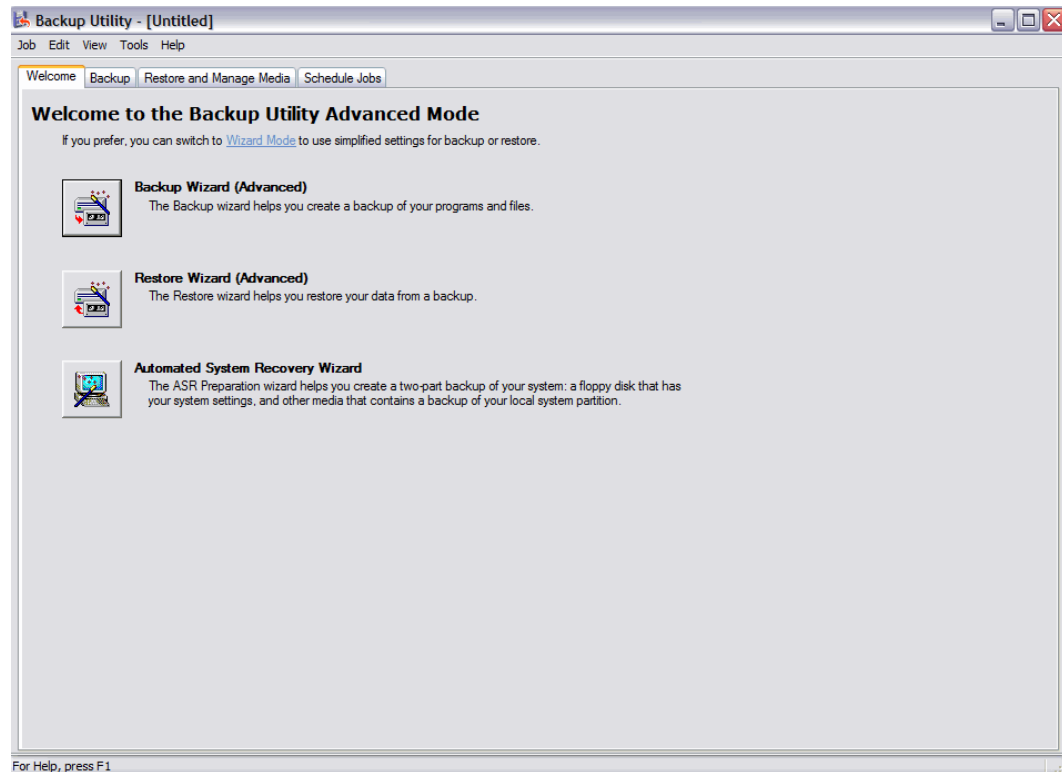
Type **ntbackup** and then click **OK**. The “Backup or Restore Wizard” window appears.



Step 2

Click **Advanced Mode**.

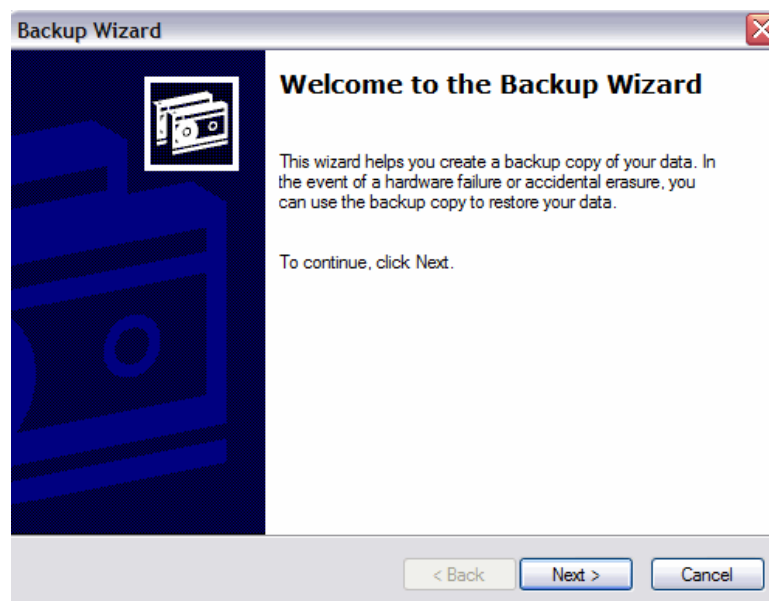
The Backup Utility window appears.



Step 3

Click **Backup Wizard**.

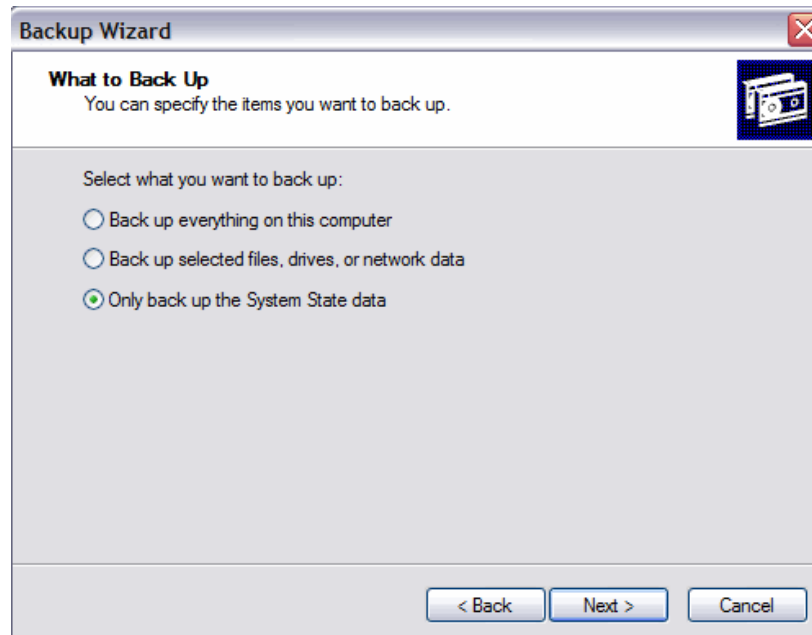
The "Welcome to the Backup Wizard" window appears.



Step 4

Click **Next**.

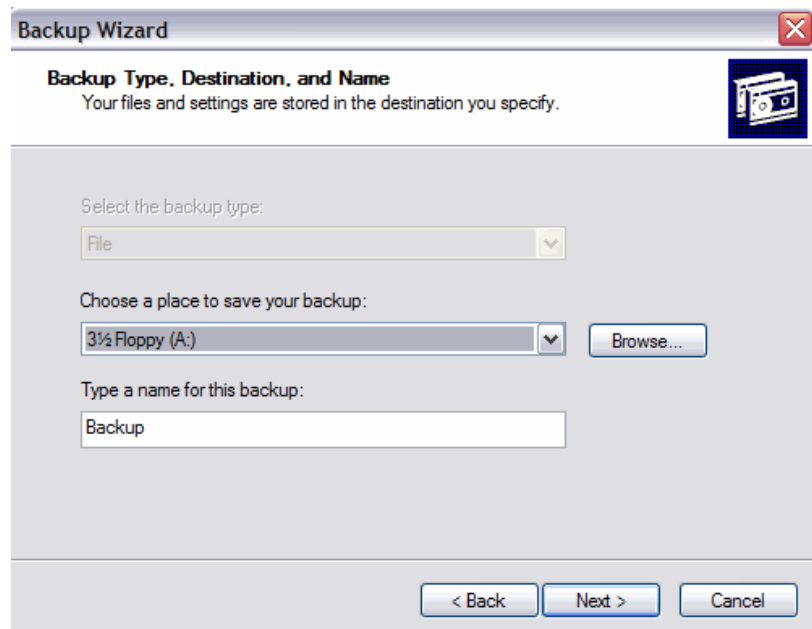
Click the **Only back up the System State data** radio button.



Step 5

Click **Next**.

The "Backup Type, Destination, and Name" window appears.

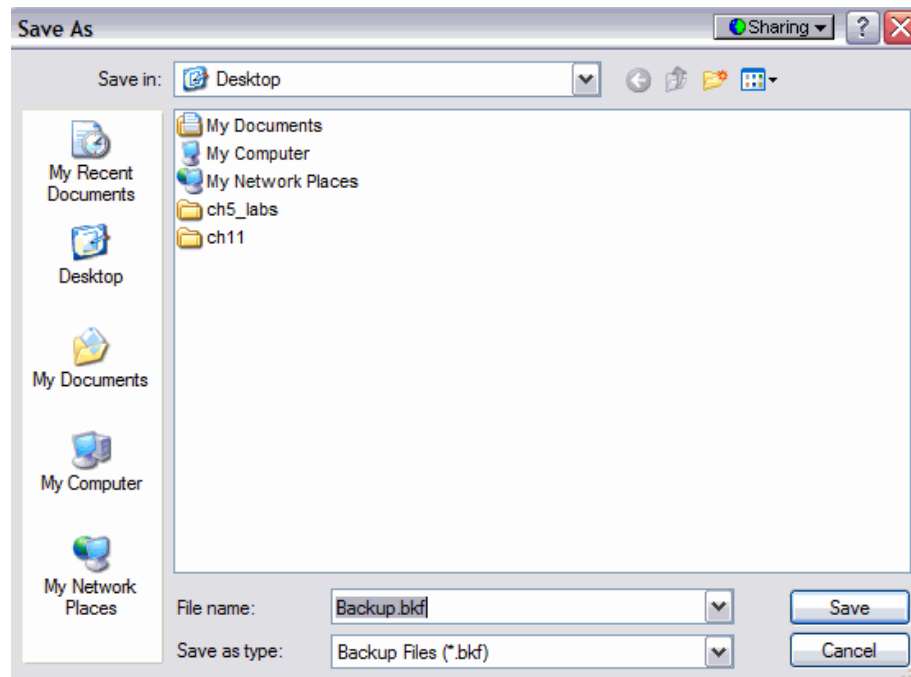


Step 6

Click **Browse....**

If you are asked to insert a disk into the floppy disk drive, click **Cancel**.

The “Save As” dialog box appears.

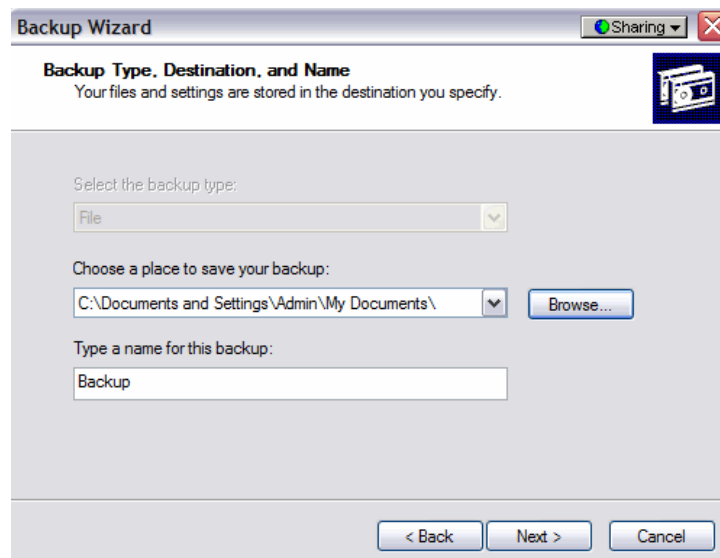


Step 7

Click the **My Documents** icon on the left side of the “Save As” dialog box.

Click **Save**.

The “Backup Type, Destination, and Name” window re-appears.



Step 8

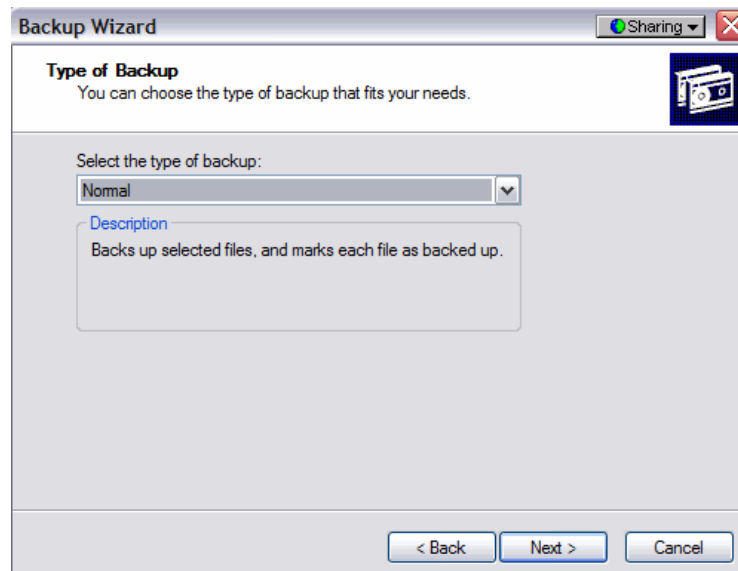
Click **Next**.

The “Completing the Backup Wizard” window appears.

**Step 9**

Click **Advanced....**

The “Type Of Backup” window appears.

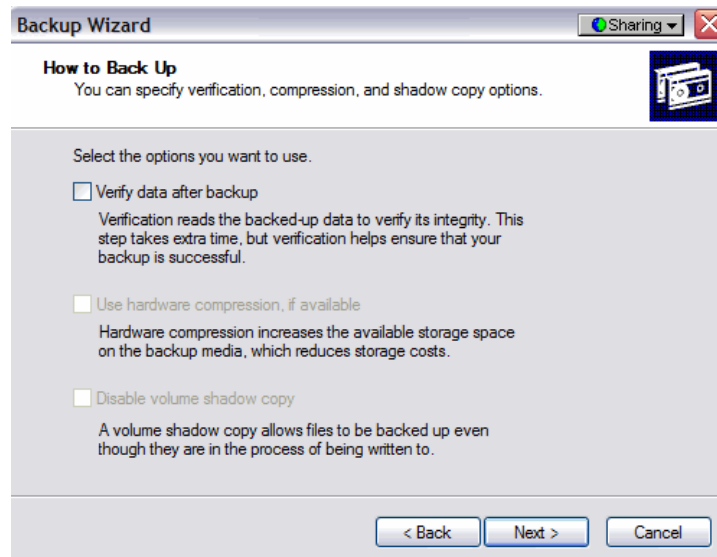


The default backup type is “Normal”. If available, make sure that “Backup Migrated Remote Storage Data” is not checked.

Step 10

Click **Next**.

The “How To Backup” window appears.



Step 11

Click the **Verify Data After Backup** check box, and then click **Next**.

The “Backup Options” window appears.



Step 12

Click **Replace the existing backups**, and then click **Next**.

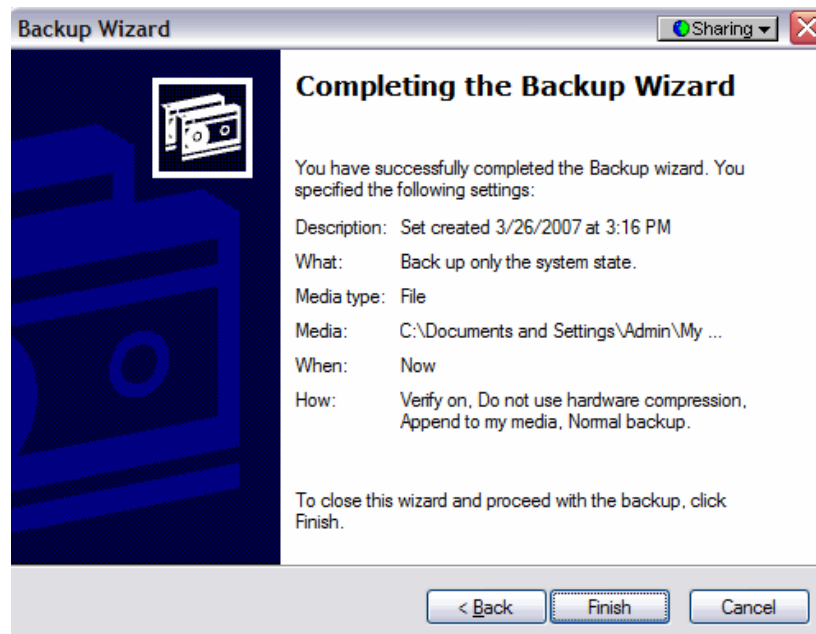
The “When to Back Up” window appears.



Step 13

At the “When To Back Up” window, click **Now** and then click **Next**.

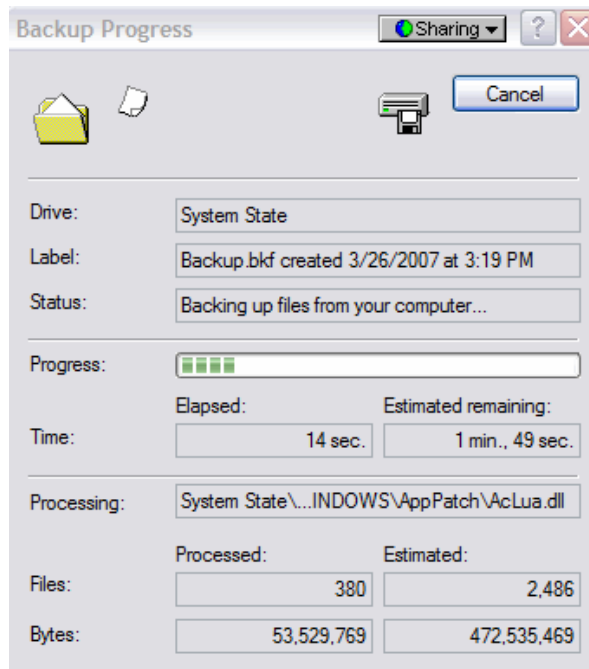
The “Completing the Backup Wizard” window appears.



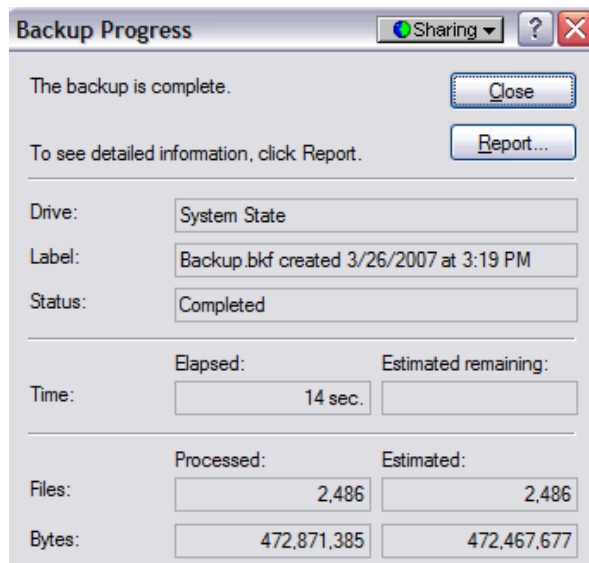
Step 14

Click **Finish**.

The “Backup Progress” window appears.



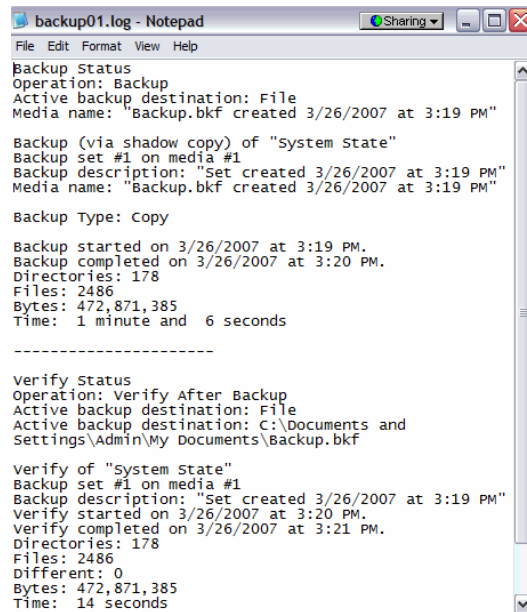
The “Backup Progress” window indicates that the backup is complete.



Step 15

Click **Report**.

The Notepad application window appears containing the report.



```
backup01.log - Notepad
File Edit Format View Help
Backup Status
Operation: Backup
Active backup destination: File
Media name: "Backup.bkf created 3/26/2007 at 3:19 PM"

Backup (via shadow copy) of "System State"
Backup set #1 on media #1
Backup description: "Set created 3/26/2007 at 3:19 PM"
Media name: "Backup.bkf created 3/26/2007 at 3:19 PM"

Backup Type: Copy

Backup started on 3/26/2007 at 3:19 PM.
Backup completed on 3/26/2007 at 3:20 PM.
Directories: 178
Files: 2486
Bytes: 472,871,385
Time: 1 minute and 6 seconds

-----

Verify Status
Operation: Verify After Backup
Active backup destination: File
Active backup destination: C:\Documents and
Settings\Admin\My Documents\Backup.bkf

Verify of "System State"
Backup set #1 on media #1
Backup description: "Set created 3/26/2007 at 3:19 PM"
Verify started on 3/26/2007 at 3:20 PM.
Verify completed on 3/26/2007 at 3:21 PM.
Directories: 178
Files: 2486
Different: 0
Bytes: 472,871,385
Time: 14 seconds
```

Close Notepad.

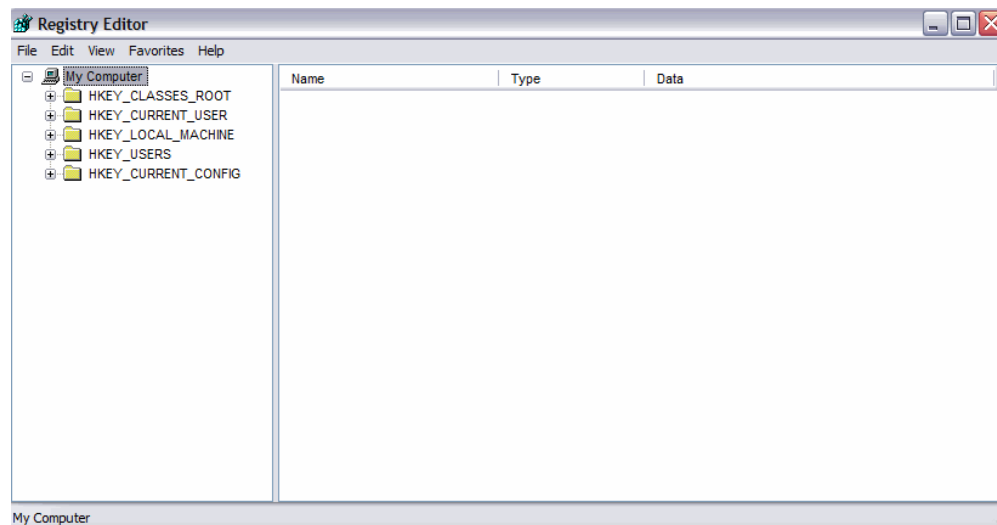
In the Backup Progress dialog box, click **Close**.

Close the Backup Utility.

Step 16

Click **Start > Run...**

Type **regedit** in the "open:" field. The Registry Editor window appears.



Step 17

Expand the **HKEY_CURRENT_USER** Registry Key.

Expand the **Control Panel** Registry Key.

Expand the **PowerCfg** Registry Key

Right-Click the **Screen Saver.Stars** Registry Key

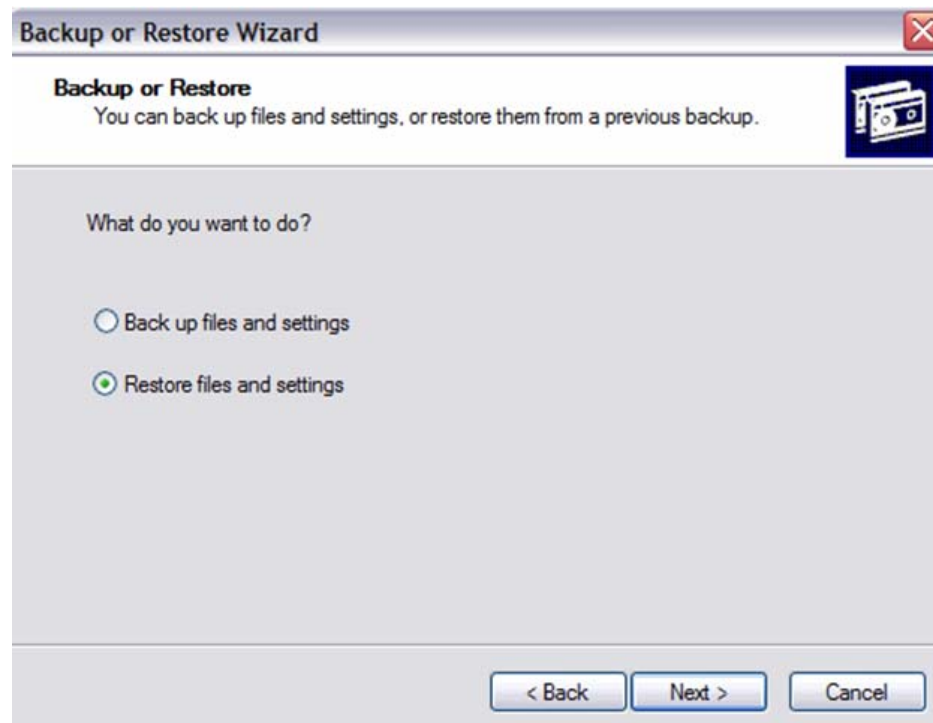
Click **Delete**

Click **File > Exit** in the Registry Editor window.

Browse to the "My Documents" folder and locate the "backup.bkf" file.

Double-click the backup file to bring up the Backup Utility Wizard.

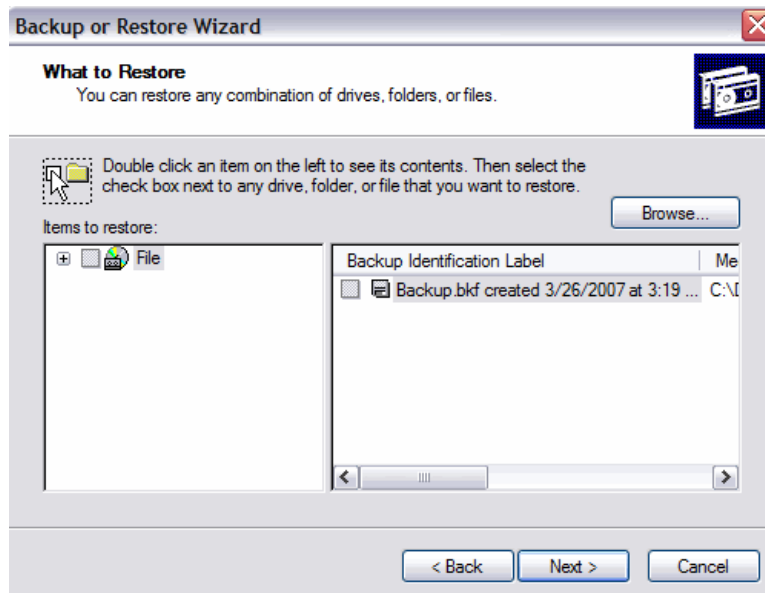
Click **Next**.



Step 18

Click the **Restore files and settings** radio button and then click **Next**.

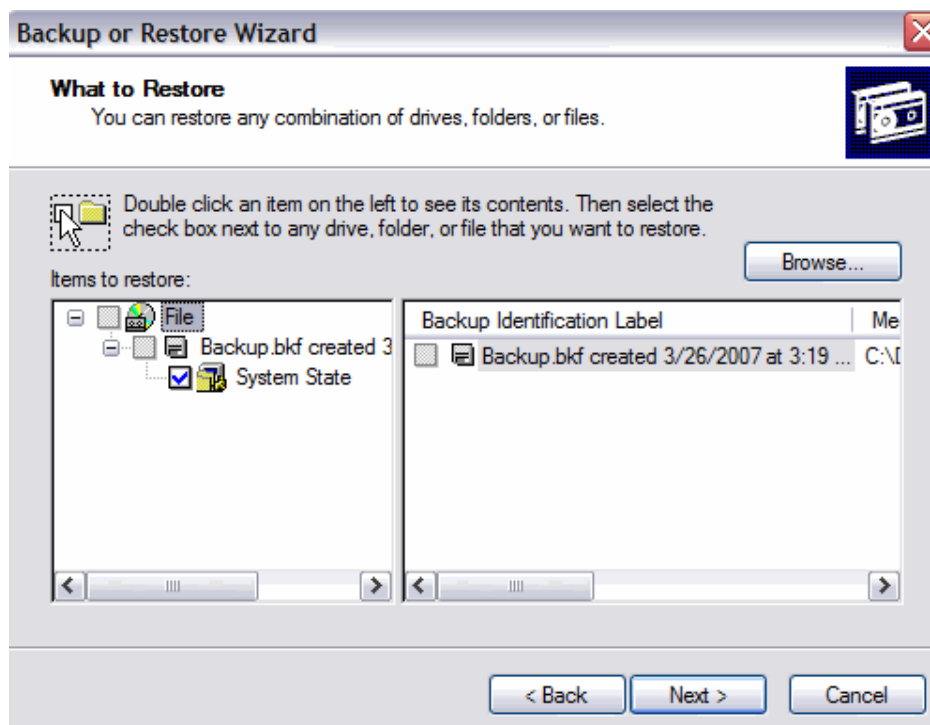
The “What to Restore” window appears.

**Step 19**

Expand the file.

Expand the backup.bkf file.

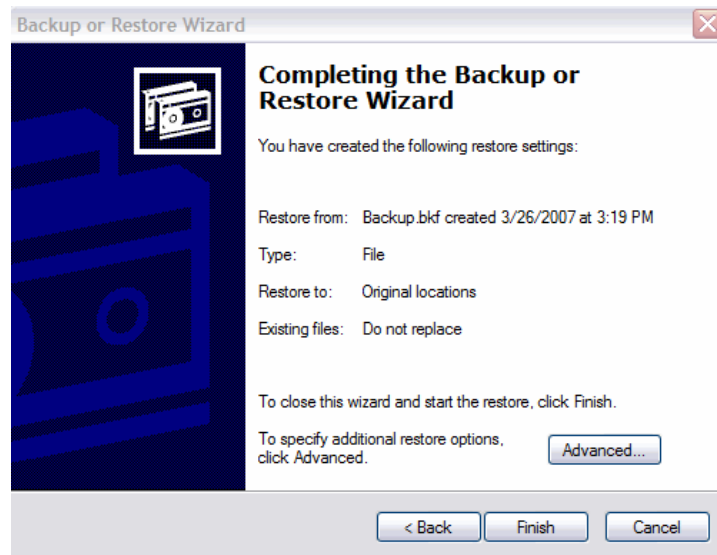
Click the **System State** check box.



Step 20

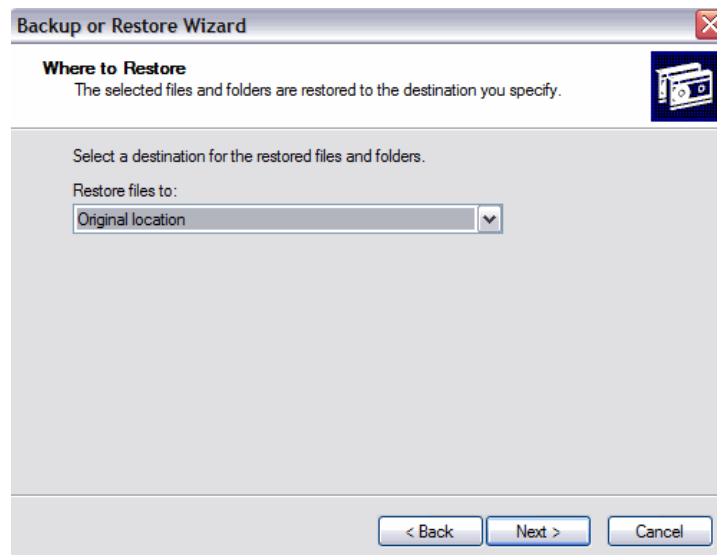
Click **Next**.

The “Completing the Backup or Restore Wizard” window appears.

**Step 21**

Click **Advanced**.

The “Where to Restore” window appears.



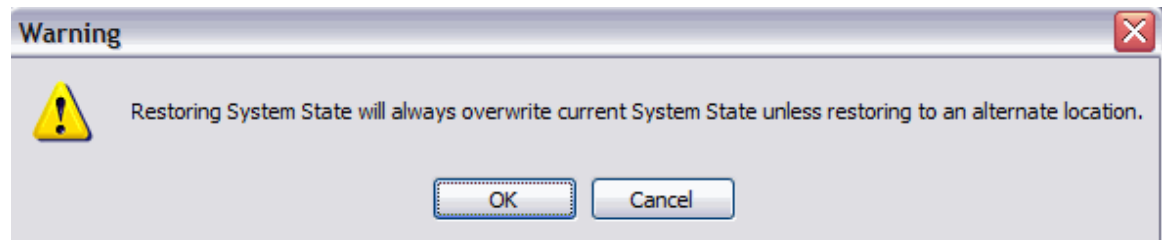
Step 22

The default restoration location is “Original location”.

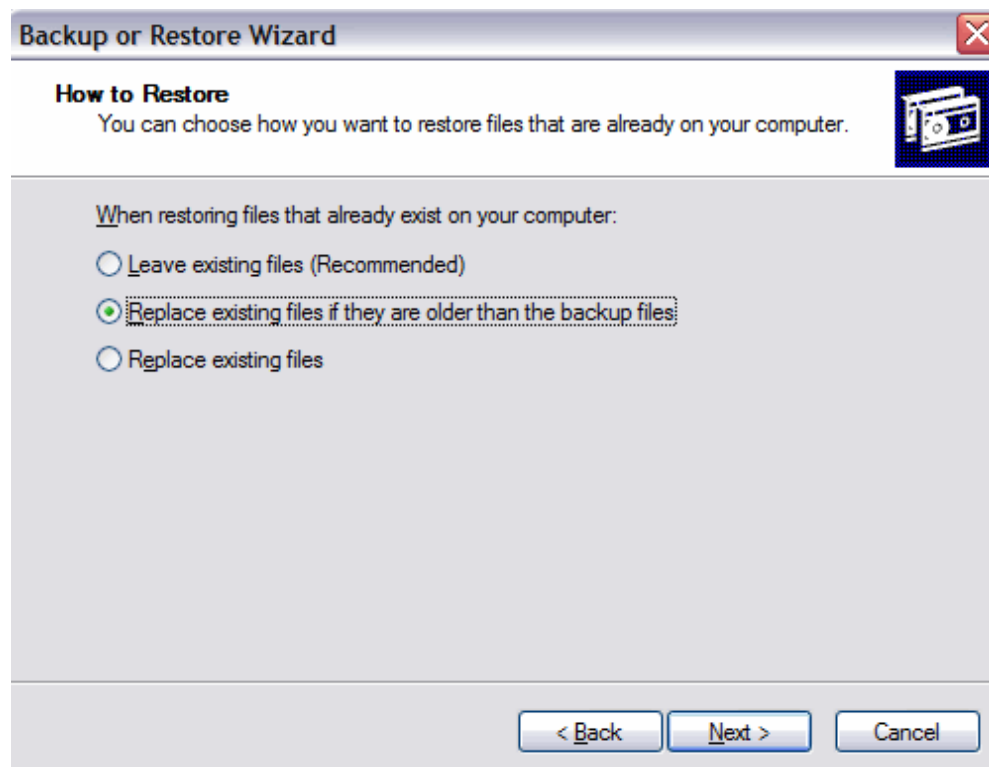
Click **Next**.

The “Restoring System State will always overwrite current System State unless restoring to an alternate location.” Warning window appears.

Click **OK**.

**Step 23**

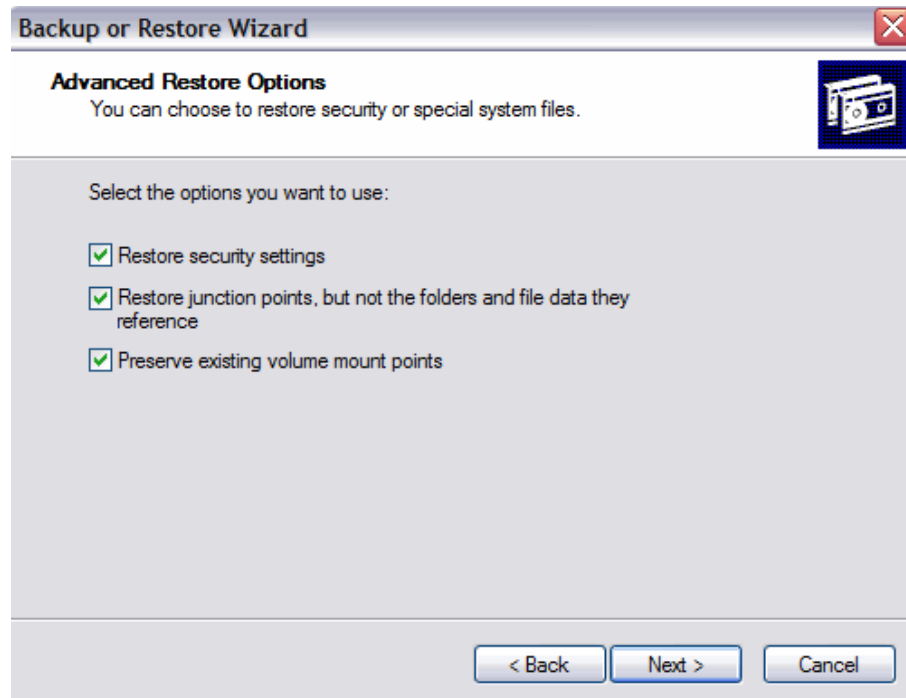
Click the **Replace existing files if they are older than the backup files** radio button.



Step 24

Click **Next**.

The “Advanced Restore Options” window appears



Be sure that all three check boxes are selected, and then click **Next**.

Click **Finish**.

The system recovery begins by copying the files back to the computer.

When prompted to restart the computer, click **Yes**. The computer will restart.

Step 25

Click **Start > Run....**

Type **regedit** in the “Open:” field.

Click **OK**.

You should see the “Screen Saver.Stars” Registry key in the Registry Editor application window.

Click **File > Exit**.

1. How does backing up the system state files save time?

5.7.2 Lab: Managing Device Drivers with Device Manager in Windows XP

Introduction

Print and complete this lab.

In this lab, you will use Windows Device Manager to gather information about different drivers and learn how Device Manager manages drivers.

Recommended Equipment

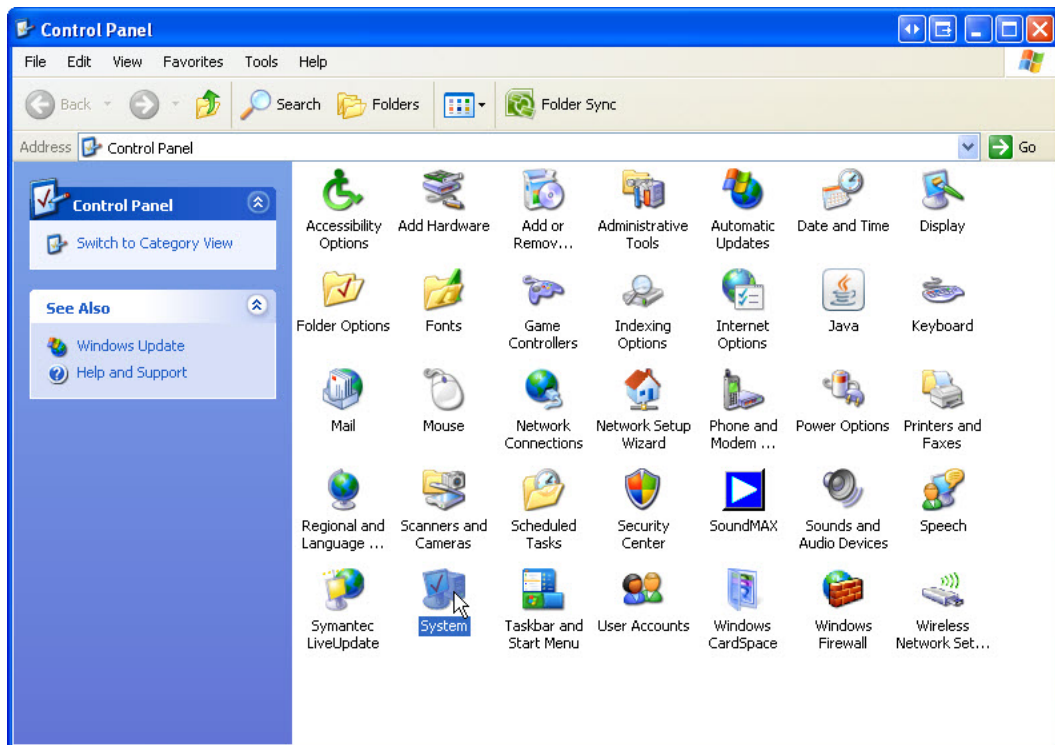
The following equipment is required for this exercise:

- A computer running Windows XP Professional

Step 1

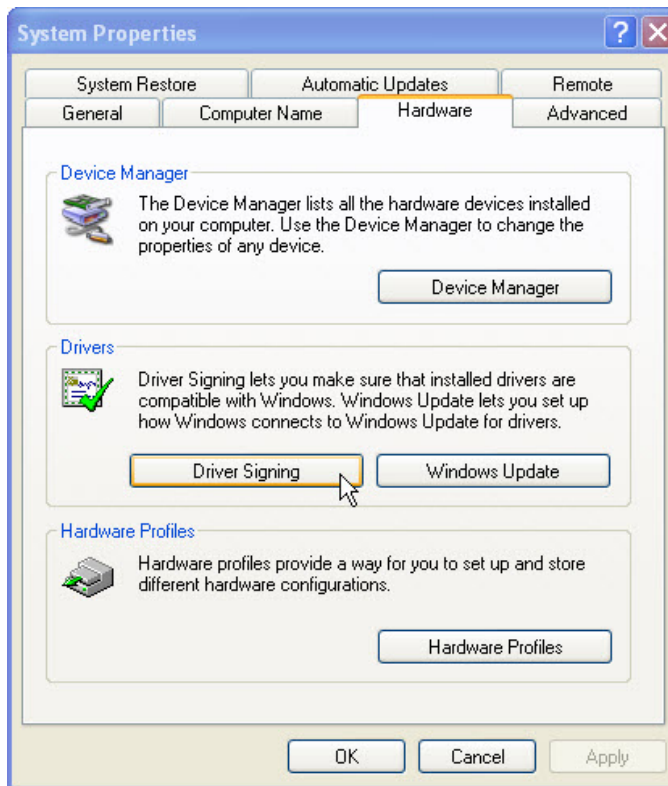
Log on to the computer as an administrator.

Navigate to the “Control Panel” by clicking **Start > Settings > Control Panel**. Double-click the **System** icon.

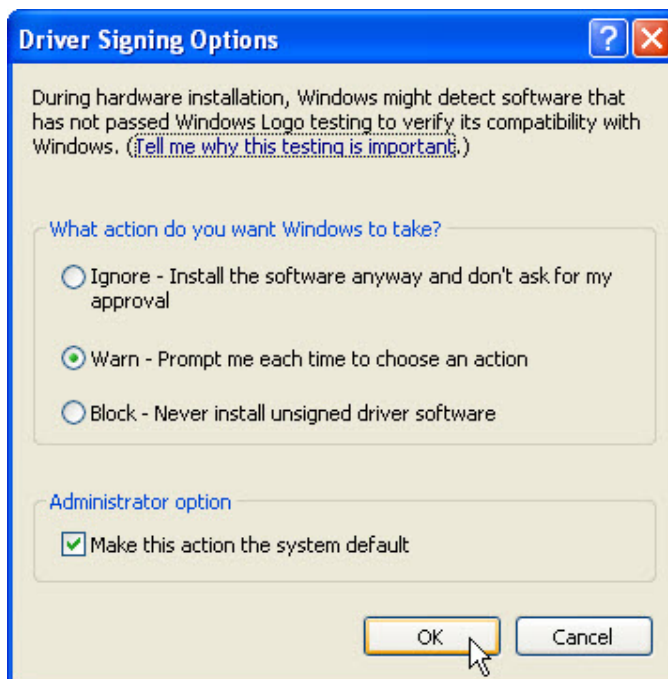


Step 2

The “System Properties” window appears. Open “Driver Signing Options” by clicking **Hardware** tab > **Driver Signing** button.

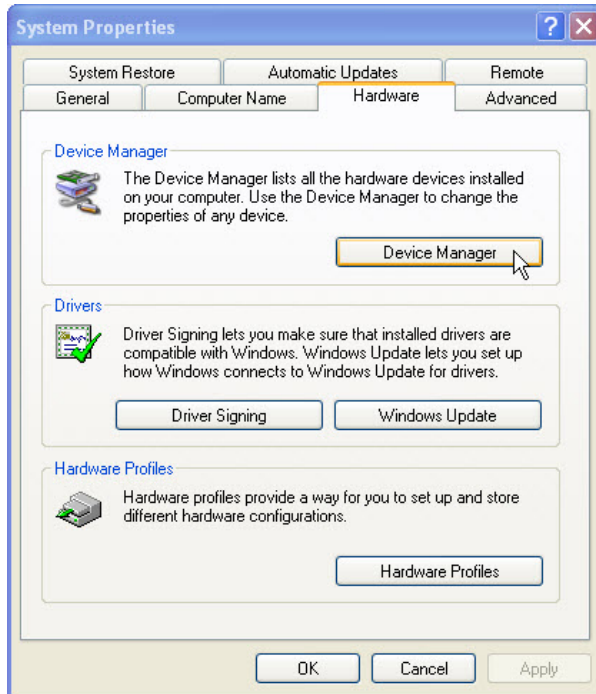


Accept the default setting and click **OK**.

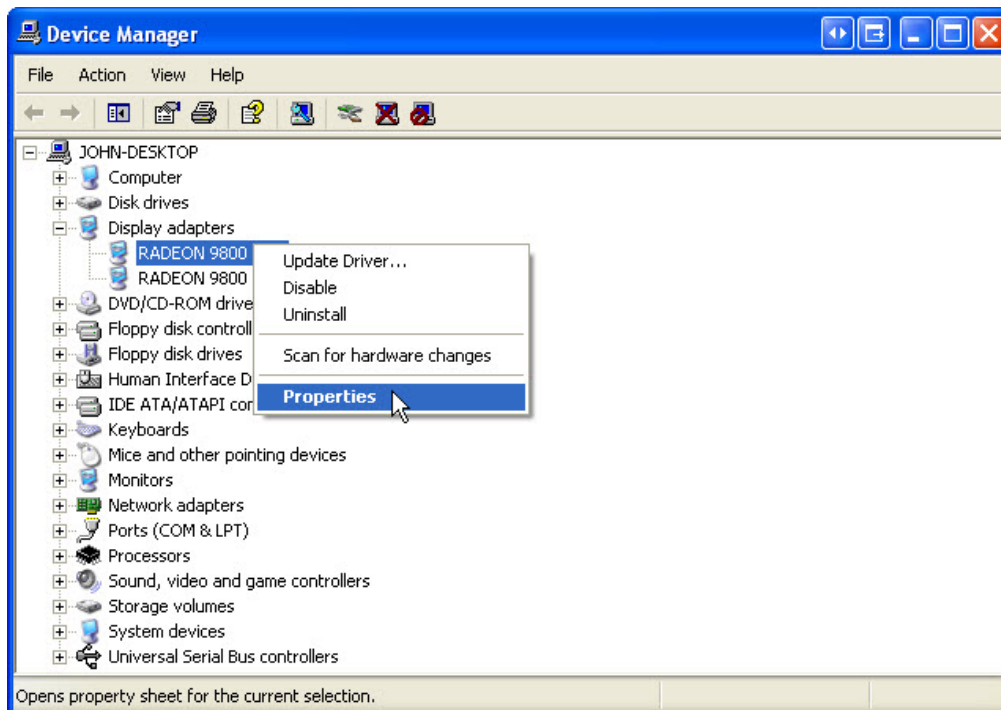


Step 3

Click the **Device Manager** button.

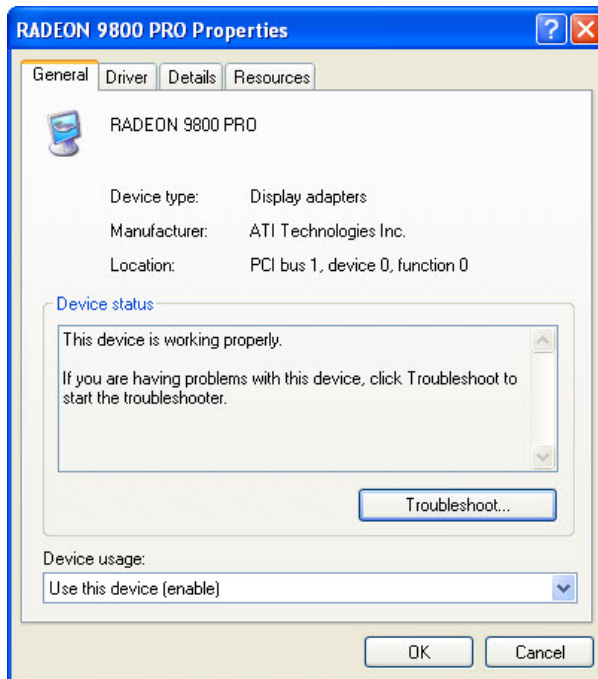
**Step 4**

Click the **plus sign** next to Display adapter. Right click the adapter name and select **Properties**.



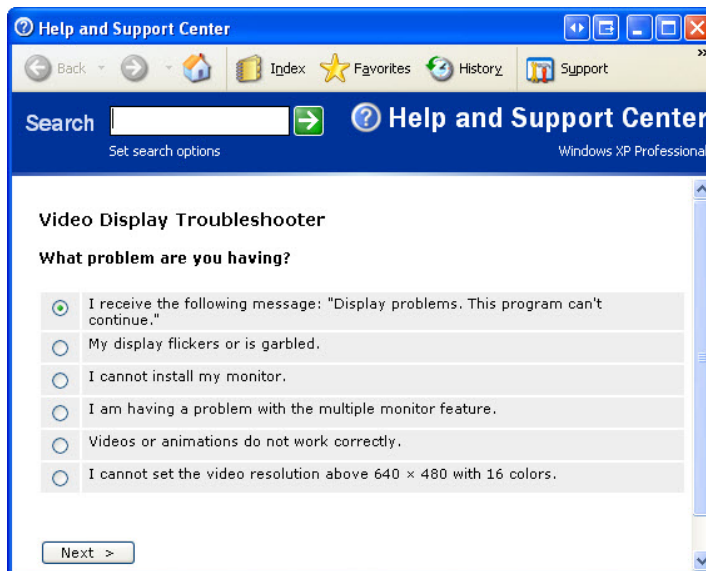
Step 5

The “Display adapters Properties” window appears.



What information is displayed under the General tab?

Click the **Troubleshoot ...** button.

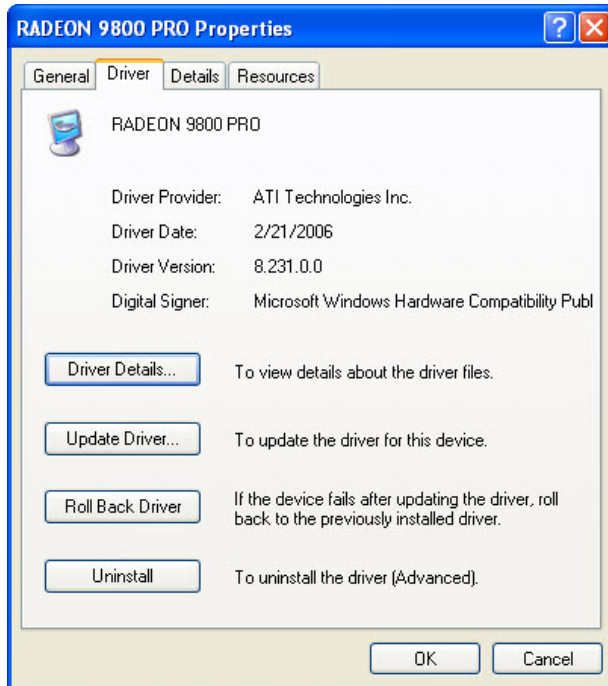


What window opens?

Close the window.

Step 6

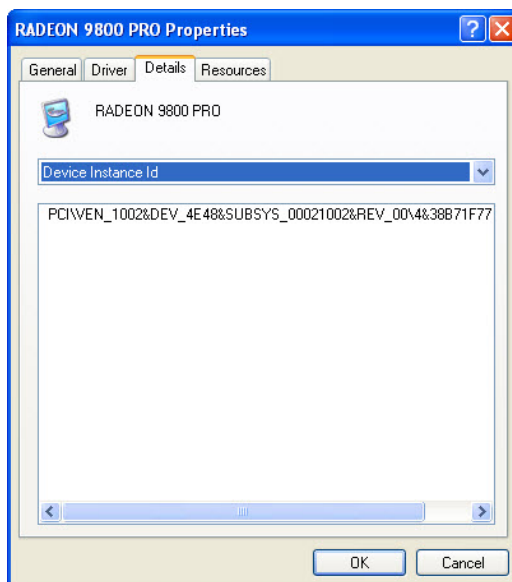
Click the **Driver** tab.



What functions can you accomplish from this page?

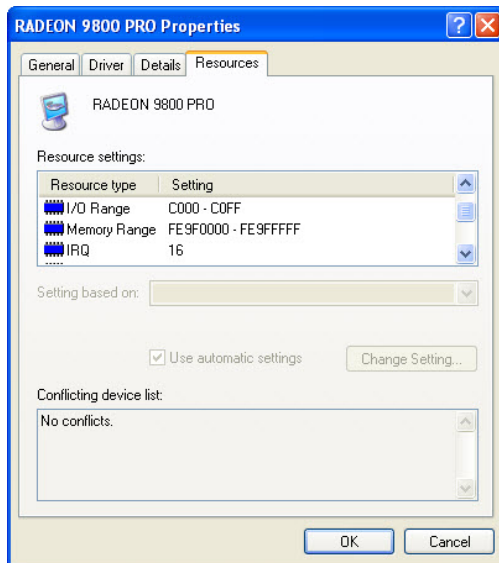
Step 7

Click the **Detail** tab. This tab provides more details about the hardware.



Step 8

Click the **Resource** tab.

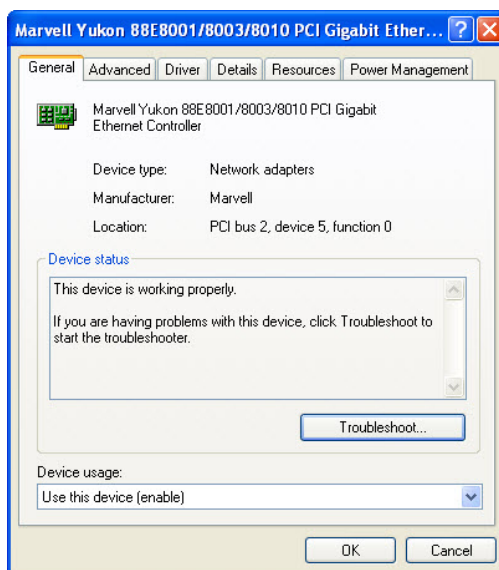


What information is displayed under the Resource tab?

Close the "Display adapters Properties" windows, click **Cancel**.

Step 9

Navigate to the "Network adapter Properties" window" by clicking the **plus sign** next to Network adapter > right click the adapter name > select **Properties**.



Which tabs are available?

Are there any extra tabs?

What is the purpose of the extra tabs?

Close the "Network adapters Properties" windows, click **Cancel**.
Close all windows and log off.