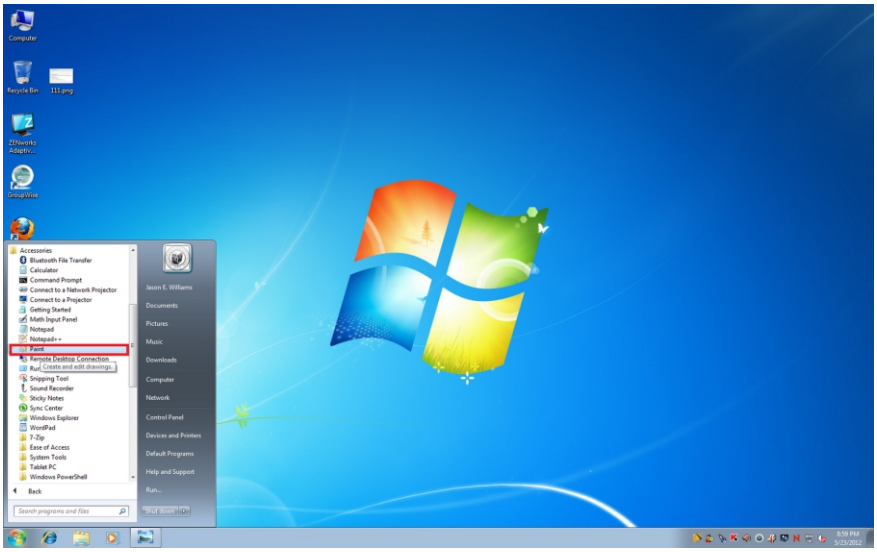
USING WINDOWS

7



As a PC technician, you need to be a connoisseur when talking about Windows at a level beyond that of a regular users and access the Windows different tools. Knowing the ins and outs of the Windows will lead to the maximization of its manipulation and navigation; therefore, having a clear understanding of how to use these tools is very important.

In this chapter, you will learn how to :

- Operate Windows basic manipulation and navigation
- Use the tools in Windows like the Task Manager
- Use the applets within the Control Panel

Windows Basics

Lesson 1

Most people understand how to use and get around within an operating system but don't always understand the terminology. As a PC technician, you should be familiar with common terms and actions.

Mouse Actions

Some common actions used with a mouse include the following:

- **Single click**. This indicates a single click with the left button on the mouse. It selects an item.
- **Double-click**. This is done with two quick clicks of the left button. It normally opens an item.
- **Right-click**. Many items include a mini-menu of items that you can view by right-clicking an item. This is also known as a context menu.
- **Dragging**. Use this to move items. Press and hold the button to select the item, and then move the mouse. When you've reached the new location, release the mouse button.
- **Hover.** If you move your mouse over an item but do not click, it is called hovering. Many applications include tooltips that appear when you hover over an item.

Programs and applications

Left-handed people often reconfigure their mouse so that the buttons are reversed. In this case, a right-click is actually accomplished by clicking the left button. You might see right-click referred to as alt-click so that it applies in both situations. The mouse button can be changed by using the Mouse applet within the Control Panel.

Windows Actions

Windows applications are displayed in a window, and you can manipulate these windows with common methods. Figure 7-1 shows the Windows Calculator open on top of Windows Explorer, with several common elements labeled.

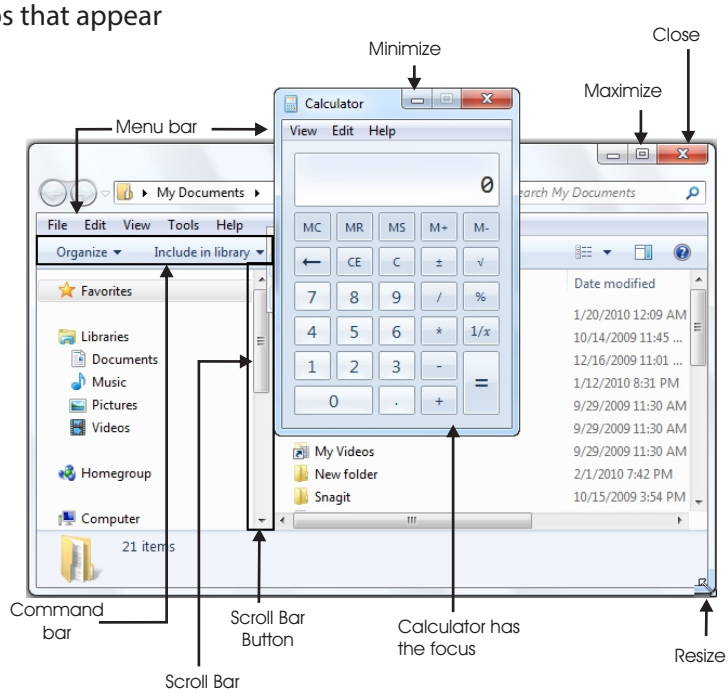


Figure 7-1 Windows Explorer and Windows Calculator.

- **Minimize.** Click this button and the window is minimized to the taskbar. If you select it on the taskbar, it returns to the previous size.
- **Maximize**. This button resizes the window to full screen.
- **Close**. Clicking the X closes the application. If you have unsaved work, many applications will prompt you to save it before it closes.
- **Menu bar**. Most windows include drop-down menus. Select any menu item, and you'll see a list of choices.
- **Command bar**. Some applications include a dynamic command bar. When you select an item, you'll see common commands associated with that item that you can select.
- **Scroll bar**. When there are additional items for a screen, a scroll bar appears. You can drag the scroll bar, or you can click within the empty space of the scroll bar to move it.
- **Scroll bar button**. You can click the small arrow to move the scroll bar down just a little.
- **Resize window**. Many windows allow you to resize them by hovering over an edge or corner. When the arrows appear, click and hold the mouse button, and then move the mouse to resize the window. Release the mouse to set the change.
- **Focus**. You can open multiple windows at the same time. The top window has the focus and responds to commands, but the bottom window is still open and running. You can select the bottom window to change the focus to that window. In Figure 6-1, the calculator is the top window and has the focus.

Libraries

Windows 7 includes libraries, which provide a method of organizing files and folders stored in different locations. The default libraries are Documents, Music, Pictures, and Videos. Libraries don't hold any data but instead are pointers to the actual location.

For example, you might have MP3 files stored in C:\Rock and C:\Pop folders on your system. You could add these folders to the Music library so that you can access them. A library can include pointers to multiple folders on a local hard drive, an external hard drive, and folders on a network drive. When the user clicks on a library folder, it shows all the folders, no matter where they are located.

About Libraries

Libraries are included in Windows 7 but not in Windows XP or Windows Vista.

Task Manager

A common tool that you should master early as a PC technician is the Task Manager. You can use it to easily view activity on the computer and close misbehaving programs.

Starting Task Manager

You can start Task Manager using one of the following methods:

- Press Ctrl+Shift+Esc.
- Press Ctrl+Alt+Delete and select Start Task Manager.
- Right-click on the Windows taskbar (at the bottom of the screen), and select Task Manager in Windows XP and Windows Vista, or select Start Task Manager in Windows 7.

After starting it, you'll see a display similar to Figure 7-2. Notice that it has multiple tabs that you can select to get different views. In the figure, it's open to the Applications tab.

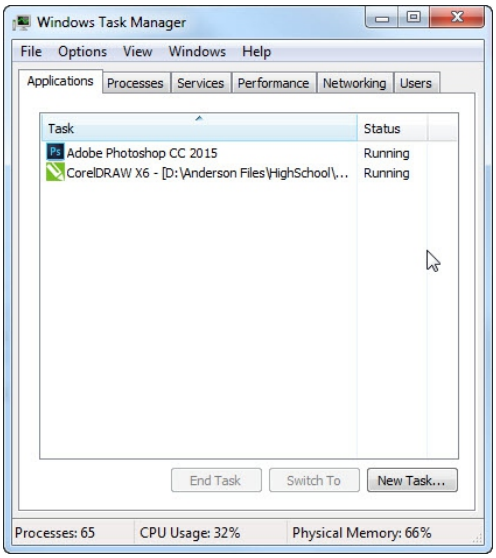


Figure 7-2 Task Manager with the Applications tab selected.

Applications

The Applications tab shows all the applications that are running, along with their current status. Occasionally, you might run across an application that is not responding to any key presses or mouse clicks. If you look here, the status might be "Not Responding."

A simple way to kill the application is to select it and click End Task. If the application doesn't respond normally, Task Manager will display a dialog box and ask if you want to proceed.

You don't need it very often, but you can click the New Task button and enter a command to start another application. This is similar to entering a command from the command prompt. For example, if you want to start the System Configuration tool, you can click New Task, type in msconfig, and click OK. Try it.

Application Hang-up

If an application locks up, use Task Manager to terminate it. If the application is interfering with the operating system, start Task Manager by pressing ***Ctrl+Shift+Esc****.*

Processes

The Processes tab identifies all of the running processes within a system and shows the resources currently being used. The most common use of this tab is to determine what process is consuming the most CPU processing time, or the most memory.

Figure 7-3 shows the Task Manager open with the Processes tab selected. Normally, you can see only processes associated with your account, but if you select Show Processes From All Users, it shows all the processes on the system.

You can change the display order by clicking the title of any of the columns. Currently, it's showing the processes in ascending order based on their name. If you want to see which one is using the most CPU time, click the CPU column title.

The System Idle Process gives you an indication of how much time the CPU is not doing anything other than waiting for a command. In Figure 6-3, it's currently idle 93 percent of the time. In contrast, if a process has stopped responding, it might be consuming all of the CPU's time. You can select it and then click End Process.

Processes

A process can be either an application or a service. Both are software, but there are differences. Applications are started by users, and services are started by the operating system. You'll see applications visible on the desktop, but services are not normally visible.

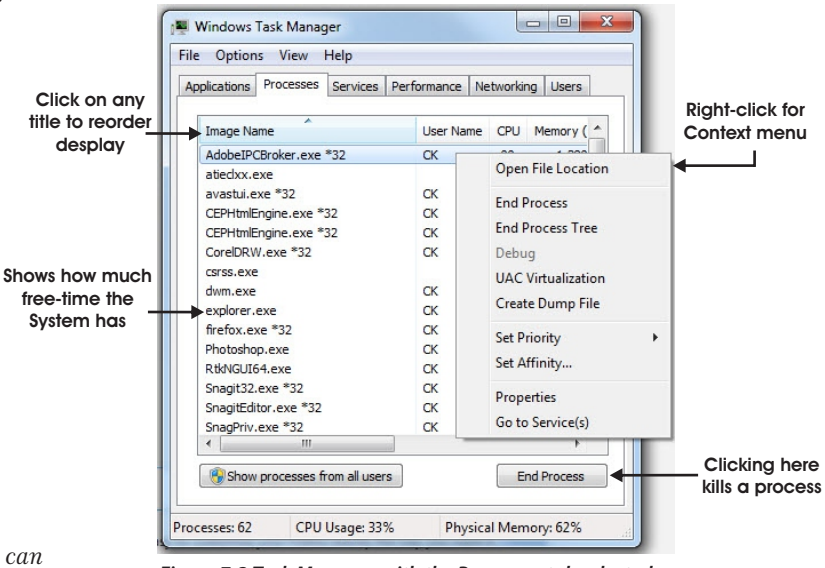


Figure 7-3 Task Manager with the Processes tab selected.

Careful when Killing Processes

If a process is needed by the system, killing it can reduce the system's stability. It could fail or reboot without warning.

If you right-click over any process, you'll see the context menu. A useful tool here is to select Go To Service(s). Occasionally, a process is running and you're not sure what it is. Sometimes looking at the related service helps you identify it.

You can also change the priority of a service from this menu. For example, if you have a process running in the background and you want to minimize the impact it can have on work you're doing, you can change the priority to Below Normal or Low.

Services

The Services tab shows a list of all the services in the system, a description, and the current state such as Stopped or Running. Figure 7-4 shows the Services tab with the print spooler selected and the right-click menu showing. The Services tab is not available in Windows XP, but it is available in Windows Vista and Windows 7.

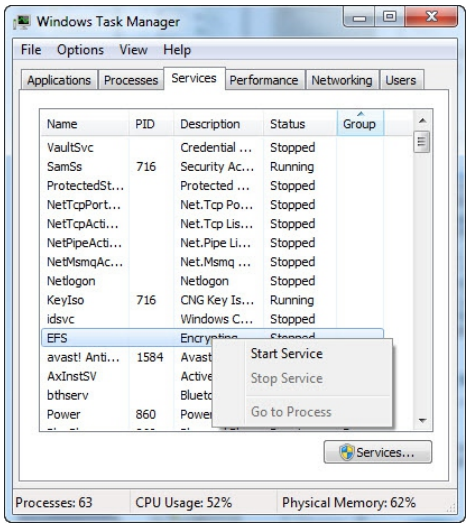


Figure 7-4 Task Manager with the Services tab selected.

Print Queue

If the print queue backs/hangs up, it might be because the spooler service has failed. You can stop and restart any service by using Task Manager, or you can use the Services applet to manipulate the services.

Performance

The Performance tab gives you a quick visual indication of the computer's performance. Figure 7-5 shows the display on a Windows 7 system, and this tab includes the following listed items.

- **CPU Usage and CPU Usage History**. This shows the current usage as a percentage and the usage over the last 6.23 minutes.
- **Physical Memory and Physical Memory History**. This identifies how much memory is being used now and recently.
- **Physical Memory**. This shows the total RAM (4,095 MB), and the available RAM (1,542 MB). When the Available memory is close to zero, it indicates that the system needs more RAM.
- **Kernel Memory**. This shows how much RAM the operating system is using.
- **System.** A key piece of information here is the uptime reported in days, hours, minutes, and seconds.
- **Resource Monitor**. If you click this button, it starts another tool that you can use to get more information. The Resource Monitor is not available in Windows XP.

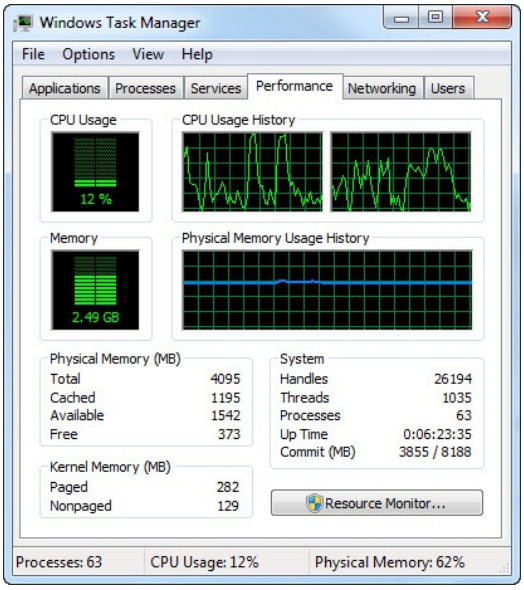
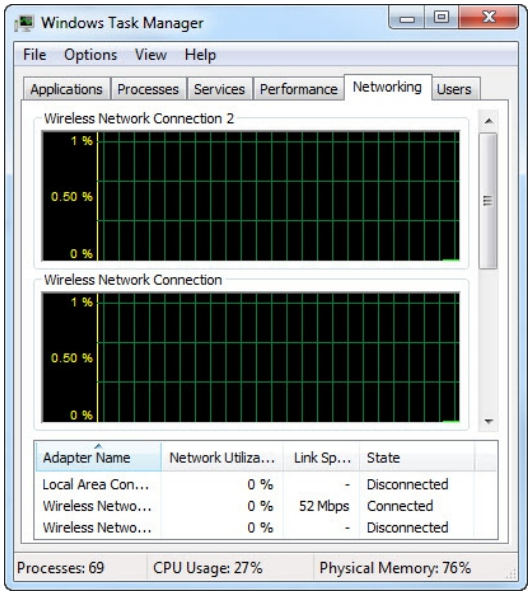


Figure 7-5 Task Manager with the Performance tab selected.



Networking

If your computer is connected to a network, you can use the Networking tab to show how much bandwidth your network interface card (NIC) is using. It includes a graph to show how much data is being transferred and indicates the Network Utilization as a percentage.

Users

The last tab on the Task Manager is the Users tab. This identifies all the users who are logged on to the system. Normally, you'll see only your account listed on this tab, but there are two ways that other users show up:

- **Fast User Switching**. This feature allows more than one user to be logged on to the system. If another user is logged on, the user shows up on the Users tab.
- **Remote Desktop Connections**. Remote desktop services allow users to connect into a system remotely. Users connected via remote desktop services show up on the Users tab.

If additional users show up, you can use this tab to send the user a message by rightclicking the user and selecting Send Message. You can also select the user and click the Disconnect or Logoff buttons to disconnect or log off the user.