# EXAM✔CRAM

## CompTIA A+

## 220-901
## 220-902

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CompTIA APPROVED QUALITY CONTENT

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# EXAM✓CRAM

# CompTIA® A+
## 220-901 and 220-902
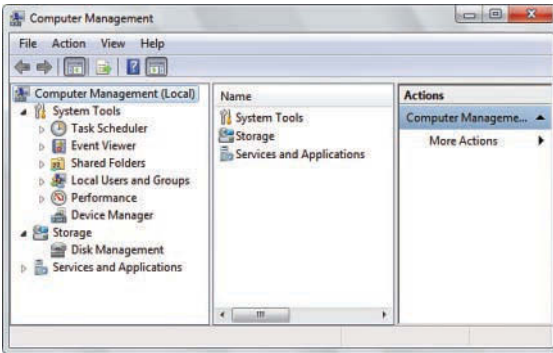
**David L. Prowse**

FIGURE 9.6   **The Windows 7 Computer Management window**

Note this is a three-pane window. The left pane has all the modules that you might work on, such as the Event Viewer, Device Manager, and Disk Management. The middle pane shows the details of whatever you click in the left pane. The right pane provides additional actions, which are also available on the Menu bar. There are a few other ways to open this window, including

▶ In Windows 7/Vista: Click Start, right-click Computer, and then select Manage.

▶ In Windows 8: Right-click Start and then click Computer Management.

▶ In Windows 8/7/Vista: Access the Run prompt and type `compmgmt.msc`. The extension .msc defines the file type as a Microsoft Management Console Snap-in Control file, also known as Microsoft Console.

Computer Management and other console windows can be grouped into one master console window known as the Microsoft Management Console (MMC) window. MMC acts as a shell for these other console windows. You can also use it to control remote computers in addition to the local computer. And you can control what particular users see by changing the Console Mode. Finally, part of the beauty of MMC is that it saves everything you added and remembers the last place you worked. To create an MMC window, open the Run prompt and type `MMC`. By default, the MMC window is empty.

> **Note**
>
> You will learn quickly that administrative functions should be carried out only by users who have administrative privileges. Even if you have administrative privileges, a pop-up User Account Control (UAC) window displays every time you try to access tools such as the MMC. Simply click Yes or Continue to open the program. If users don't have administrative capabilities, they will be blocked altogether or when the UAC window pops up, they won't be able to continue. For more information on UAC, see Chapter 17, "Security."

To add consoles (known as snap-ins), do the following:

1. On the Menu bar, click File and then click Add/Remove Snap-in. The Add/Remove Snap-ins window should appear.

2. Select the components you want from the left by highlighting them one at a time and clicking the Add button. You need to select the local computer or a remote computer. Click OK when finished. These snap-ins should now be shown inside of the Console Root. An example MMC is shown in Figure 9.7.
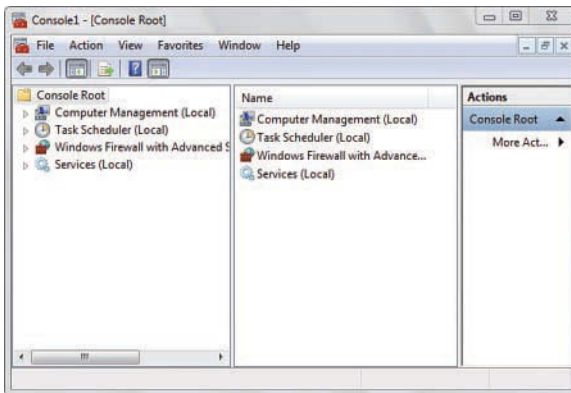


FIGURE 9.7  **The Windows 7 MMC**

3. Save the MMC. By default, this window prompts you to save to the Administrative Tools folder of the user who is currently logged on.

> **ExamAlert**
>
> Know how to add snap-ins to an MMC.

# Cram Quiz

Answer these questions. The answers follow the last question. If you cannot answer these questions correctly, consider reading this section again until you can.

## 220-902 Questions

1. A small arrow at the lower-left corner of an icon identifies it as what?

   ○ **A.** A super icon

   ○ **B.** An icon headed for the Recycle Bin

   ○ **C.** A shortcut

   ○ **D.** A large file

2. What can a user do to cut back on the amount of resources that Windows 7 uses? (Select the two best answers.)

   ○ **A.** Increase RAM.

   ○ **B.** Use the Classic theme.

   ○ **C.** Disable some of the Performance Options.

   ○ **D.** Use the computer less.

3. Which utility groups snap-ins into one window?

   ○ **A.** Computer Management

   ○ **B.** MSC

   ○ **C.** MCC

   ○ **D.** MMC

4. You open File Explorer in Windows 8 by pressing Windows+E on the keyboard. Which folder does it bring you to by default?

   ○ **A.** Computer

   ○ **B.** Network

   ○ **C.** This PC

   ○ **D.** Recycle Bin

5. How can the Run prompt be opened in Windows 7? (Select the two best answers.)

   ○ **A.** By pressing Windows+R

   ○ **B.** By pressing Windows+Run

   ○ **C.** By clicking Start and typing `Run`

   ○ **D.** By pressing Ctrl+Shift+Esc

# Cram Quiz Answers

## 220-902 Answers

1. **C.** An icon with an arrow is a shortcut, redirecting to a file or program in another location in Windows. The file size is actually very small, from 1 KB to 4 KB.

2. **B and C.** By using the Classic theme or by disabling some or all of the Performance Options, the operating system will not need as much graphics computing power. Increasing RAM increases the amount of resources your computer has, but it doesn't decrease the amount of resources that Windows uses.

3. **D.** The MMC can have one or more snap-ins, such as Computer Management and so on. MSC is the extension that MMC and individual console windows use. MCC stands for memory controller chip.

4. **C.** When opening File Explorer in Windows 8 by pressing Windows+E, the folder that is displayed is This PC. Other options for opening File Explorer in Windows 8 (such as going to Run and typing **Explorer**) will bring you to the Libraries folder. Windows 7 displays either Computer or Libraries, depending on how you open the program. The Network location and the Recycle Bin location in File Explorer/Windows Explorer can be accessed from other areas of Windows (for example, by right-clicking the Recycle Bin icon on the desktop and selecting Open).

5. **A and C.** By pressing Windows+R on the keyboard, you can open the Run prompt; you can also click Start and type **run** in the Search field. There is no Run key, so there is no Windows+Run shortcut, and pressing Ctrl+Shift+Esc would usually bring up Task Manager. In Windows 8, you can right-click the Start button and select Run to open the Run prompt.

# System Tools and Utilities

Windows 8, 7, and Vista have a cornucopia of system tools and utilities. There are tools that help you to analyze and manage devices, such as Device Manager and System Information. There are also tools that can aid in optimizing the operating system and customizing the user environment. And there are advanced utilities that enable you to edit the registry and connect remotely to other computers. Knowledge of these types of tools and utilities separates the good technician from the "okay" technician. In this portion of the chapter, we'll give a more generalized overview of these system tools and utilities that you can apply to most versions and editions of Windows. Let's discuss how to manage devices first.

## Managing Devices

A computer probably has a dozen or more devices that all need love and attention. Taking care of a computer means managing these devices. The primary tool with which a technician does this is Device Manager.

### Device Manager

There are a few ways to open Device Manager, for example:

▶ Open it from the Control Panel (in icons mode).

▶ Open Computer Management, expand System Tools, and then select Device Manager. (You can also open Computer Management as a snap-in within an MMC.)

▶ Open the System Properties window, click the Hardware tab, and then click the Device Manager button. To get to the System Properties window in Windows 7/Vista, click Start, right-click Computer, select Properties, and then click Advanced system settings. (Note that Device Manager is also listed.) You can also open the Run prompt and type `systempropertieshardware.exe` to directly access the Hardware tab of the System Properties window in Windows 8/7/Vista.

▶ Open the Run prompt and type `devmgmt.msc`.

When Device Manager opens, you will notice that there are categories for each type of device. By expanding any one of these categories, you will see the specific devices that reside in your computer. Figure 9.8 shows Device Manager.
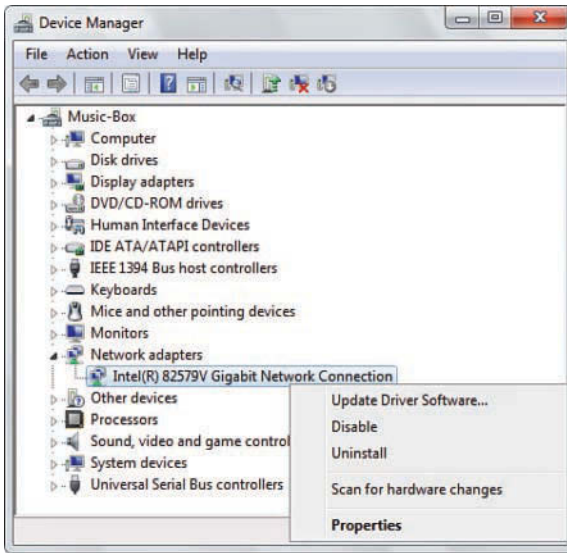
FIGURE 9.8    **Device Manager in Windows 7**

By right-clicking a specific device, you can update its driver, enable or disable it, uninstall it altogether, check for any hardware changes, or access additional properties, such as the driver details and resources used by the device. Figure 9.8 shows the resulting menu when right-clicking an Intel network adapter. These are the standard options, but your options might be more or less, depending on the device you have right-clicked.

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### ExamAlert

Know how to access the properties of a device, install drivers, and enable/disable devices in Device Manager.

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Some drivers are installed/updated through .exe files that are downloaded from the manufacturer's website. Others are installed from within Device Manager. Device Manager can search for drivers automatically, or you can manually install the driver by browsing for the correct file (often, it's a file with an .inf extension). Windows attempts to install drivers automatically when it recognizes that a device has been added to the system. Usually, however, it is recommended that you use the driver disc that came with the device or that you download the latest version of the driver from the manufacturer's website, especially when dealing with video, audio, and hard drive controller drivers.