Using System Configuration Lesson 1

The System Configuration tool is one of the tools you can use to view and manipulate the configuration of your system. It has changed a little between Windows XP and Windows Vista but is the same in Windows Vista and Windows 7.

You can start the System Configuration Tool by entering **msconfig** (short for Microsoft Configuration) at the command prompt or a run line and pressing Enter. It's also accessible via the Administrative Tools group from the Control Panel on Windows Vista and Windows 7.

General

Figure 6-1 shows the System Configuration Tool with the General tab selected on Windows 7 (on the left) and Windows XP. You can see that msconfig in Windows XP includes three additional tabs that allow you to easily configure three different initialization files: System.ini, Win.ini, and Boot.ini. Windows Vista and Windows 7 use different methods for these settings, so these files are not needed. However, the Boot tab on Windows 7 provides some of the same functionality as the Boot.ini tab in Windows XP.
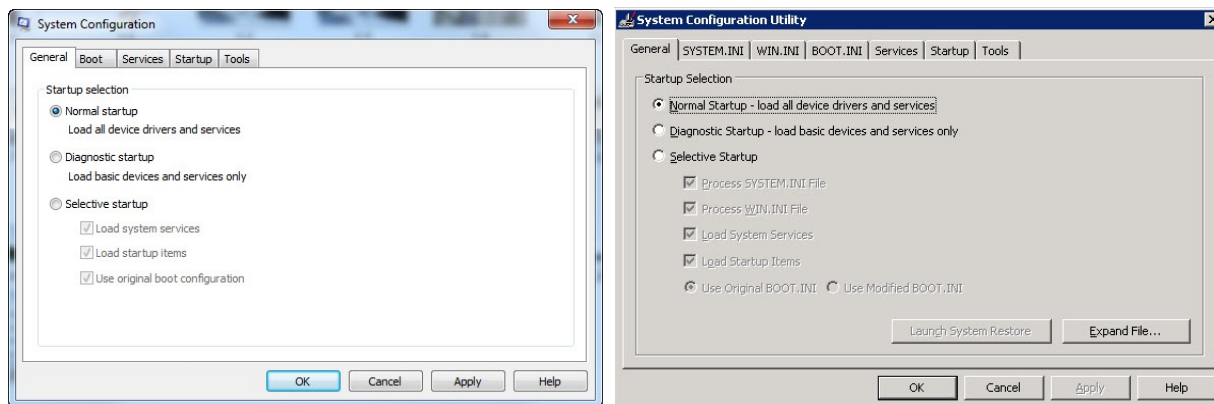

Figure 6-1 General tab of System Configuration tool.

The Startup Selection option is normally set to Normal Startup as shown. You can select Diagnostic Startup and restart the system, and it will start Windows using only basic services and drivers. If you modify any of the settings in the Services or Startup tab, it will automatically change to Selective Startup.

Windows XP also includes a button to open System Restore, to create restore points, or to revert a system to a previously created restore point. The "System Protection" section later in this chapter covers restore points in greater depth.

Boot

The Boot tab allows you to control how a system starts. This can be useful if you want to change the behavior of a dual-boot system. For example, if you have a dual-boot system that currently starts Windows 7 by default but you want it to start Windows 8, you can use this tab to change it. Figure 6-2 shows the options for a dual-boot system configured with Windows 7 and Windows 8.

Windows 7 is currently the default operating system. The system will start, show the dualboot options for 30 seconds (based on the Time-Out setting), and start Windows 7 if the user doesn't take any action. You can select Windows 8 and click the Set As Default button to cause it to start Windows 8 by default instead. You can also change the Time-Out setting on this tab.
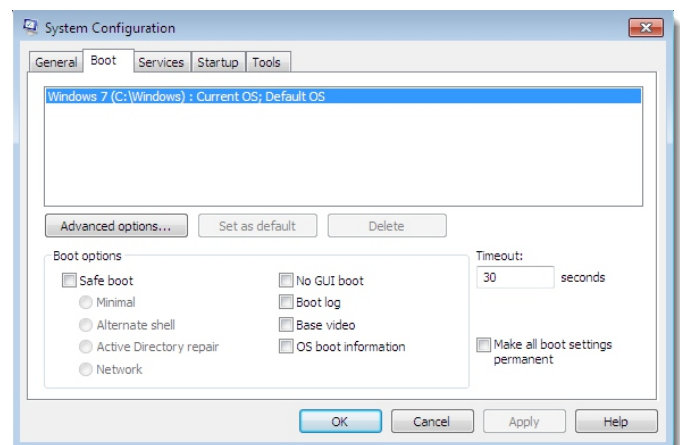
Figure 6-2 Boot tab of System Configuration.

Services

The Services tab lists all the services that are available on the system and their current status, such as Running or Stopped. If the service has been disabled, it lists the date and time when it was disabled. Figure 6-3 shows this tab with the Windows Backup service disabled. You can deselect any check box to disable the service.

You can use this as a quick way to view the status or disable a service, but your choices are limited. The Services applet provides you with many more options.

System Information tool

System Information is another tool that allows you to view services. In the next chapters, the book will introduced the System Information tool and showed how you can use it to get a quick overview of the system. Within the Software Environment group, you can select Services to view all the Services, their current state, the start mode, and more. You can start it by typing msinfo32 from the command prompt or a run line.
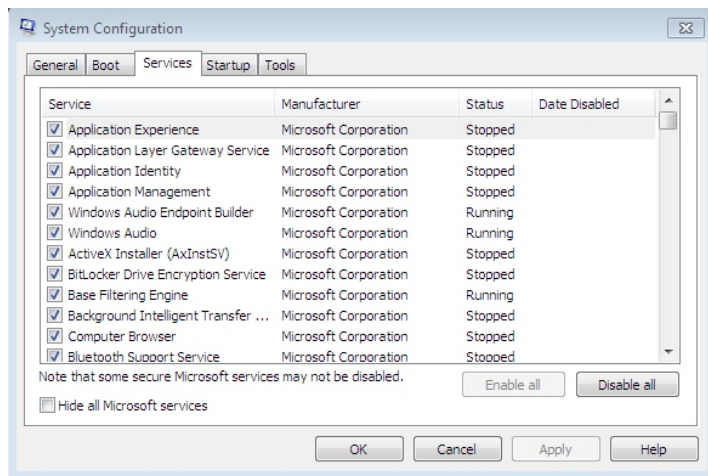

Figure 6-3 Services tab of System Configuration tool.

Startup

The Startup tab shows all the applications that are configured to start when Windows starts. After using your computer for a couple of years, you'll have installed many different applications, and you might notice that the startup cycle is very slow. Many applications configure themselves to start automatically.

Figure 6-4 shows the Startup tab for a relatively new installation. The only two applications I've added are Virtual Machine User Services and Snagit. Compare this to your system. How many applications are configured to start automatically?

You can deselect the check box for any of the items to prevent it from starting the next time Windows starts.

Startup Applications
Manipulating the Startup applications is useful when troubleshooting infected computers or problem applications. You can use this to prevent an application from loading at startup.
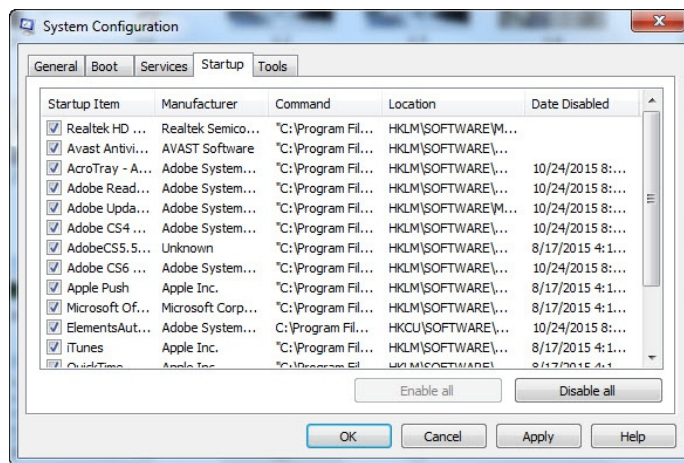

Figure 6-4 Startup tab of System Configuration tool.

The Windows Startup folder (available by clicking Start, All Programs, Startup) shows applications that are configured to start for the current user's profile. However, this does not show all the applications that will start when Windows starts. The Startup tab of the System Configuration applet shows all the applications.
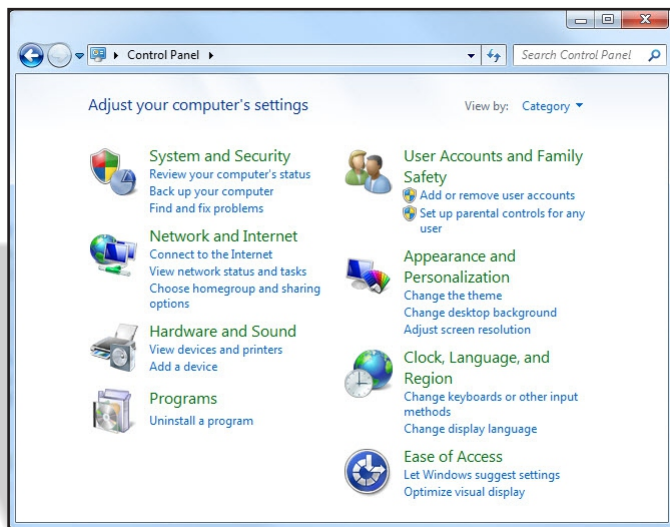
Tools

The Tools tab provides a launching pad for many tools that are available on your system. These tools are covered in different areas of this book, but as an exercise, it's worth your time to open them. Select any of the tools and click Launch to start it.

CONFIGURING WINDOWS

Laboratory Activities

6.01 Performing a Backup and Restoration
6.02 Upgrading to Windows Vista SP2 and Configuring Automatic Updates
6.03 Installing Device Drivers in Windows

Chapter Analysis and Written Test

Lab Activity 6.01 Performing a Backup and Restoration

Windows offers simple backup/restoration utilities that you can use to back up system data and program data and files, and an advanced recovery feature, in case the system becomes so unstable that it won't even boot. Windows XP introduced the Automated System Recovery (ASR) routine, and Windows Vista/7 uses the Backup and Restore Center (though Windows 7 drops the "Center" part). The ASR creates nonbootable disks with tools to restore a system (along with a backup of the system and boot partitions), whereas Vista/7's Backup and Restore Center will make a full (or partial) backup of your entire system that is restored using the System Recovery Options.

This lab introduces you to the ASR process in Windows XP Professional and the Backup and Restore Center in Windows Vista/7.

Learning Objectives

Performing backups of any kind is a critical responsibility of a PC technician. The Windows XP Professional Automated System Recovery and the Vista/7 Backup and Restore Center are excellent representations of the steps required to back up and restore an OS.

At the end of this lab, you'll be able to

- prepare a backup
- perform a restoration

Lab Materials and Setup

The materials you need for this lab are
- a working PC with Windows XP Professional, Windows Vista, or Windows 7 installed
- some form of backup media/device (CD/DVD drive, tape drive, network drive, separate partition)
- a blank, formatted floppy disk (XP only)
- the Windows XP Professional or Windows Vista/7 installation media

Let's Get the Lab Started

The time to prepare a backup is while the system and data are in a state of complete integrity. It's when they crash or get corrupted that you'll need the backup! The following steps create an ASR set and then use that ASR set to restore a Windows XP system to working condition. T he steps for the Windows Vista/7 Backup and Recovery Center will follow.

AUTOMATED SYSTEM RECOVERY PREPARATION

Step 1 Launch the Windows Backup or Restore Wizard by clicking Start | Run and typing ntbackup.exe in the dialog box. Alternatively, you can click Start | All Programs |Accessories | System Tools | Backup. Click the Advanced Mode text link to bring up the screen shown in Figure 6-1.

Step 2 Launch the Automated System Recovery Wizard and perform the following steps:

a. Click Next, and in the Backup media or file name dialog box, type or browse for the location in which you want the backup to be placed. This backup includes your entire system and boot volumes, which, in most cases, is your C: drive. Your backup media (second hard drive or optical disc) will need to be big enough to hold the contents of that drive.
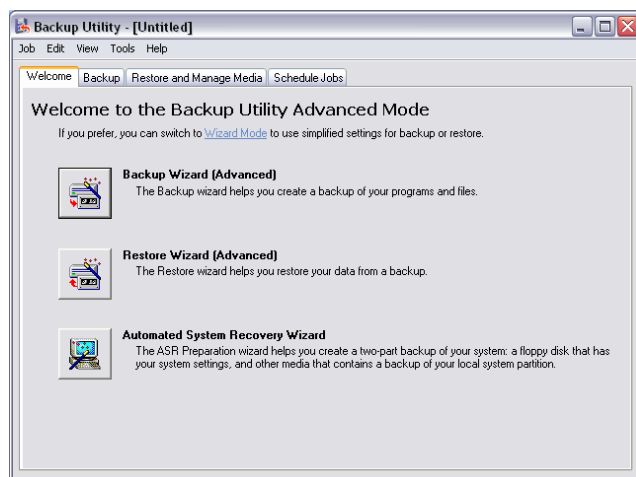
FIGURE 6-1 Windows XP Backup Utility's Advanced Mode screen

b. Name the backup file, being careful to preserve the .BKF file extension. If you are using a second hard drive, for example, you might enter D:\MyASRBK.BKF to create the file on the D: drive.

c. Click Next and then click Finish to start the backup of your system files.

d. When the backup completes, the ASR Preparation Wizard instructs you to insert a formatted 1.44-MB floppy disk. Click OK. ASR copies the required files onto the floppy disk.

e. When instructed, remove and label the floppy disk and then click OK. You have completed the preparation for an Automated System Recovery.

AUTOMATED SYSTEM RECOVERY RESTORE

When you run the ASR restoration, you will format the C: drive. Make sure you've backed up everything you want to keep!

Step 1 Boot the system using the Windows XP Professional installation CD-ROM.

Step 2 When prompted with Press F2 to run Automated System Recovery (ASR), press the F2 key.

Step 3 Insert the ASR floppy disk and press any key when ready.

Step 4 The Windows XP Installer will copy files to a temporary folder, format the partition where XP will be installed, and prompt you to remove the installation CD-ROM and reboot.

Step 5 After rebooting, the Windows XP installation continues.

a. During the installation, you'll be prompted for the location of the ASR backup file.

b. Enter the file location or use the Browse button to enter the location and name of the ASR backup file.

c. Click OK.

d. T he installation now completes. All of the Windows XP configuration settings and preferences should be as they were on the original system.

BACKUP AND RESTORE CENTER

Step 1 Open Control Panel. Switch to Classic View (if you haven't already) and double-click Backup and Restore Center (Vista) or Backup and Restore (Windows 7).

Step 2 To set up the backup, decide first whether to back up certain files or the whole computer. (In Windows 7, use the Create a system image option to create a complete backup of your system.) The Back Up Files wizard will open. Select where to save the backup and click Next. If you chose only a partial backup, select the file types you wish to back up from the list provided. Click Next. For partial backups, Windows also asks how often you want the backup to be updated. Click Save settings and start backup.

Step 3 To restore files, choose whether to restore only certain files or to restore a Windows Complete Backup and Restore image (referred to as a System Image in Windows 7). If you are performing a partial restoration, click Restore files. Select whether to restore the latest backup or an older one. Click Next. Then select where to restore the backup files to and click Start Restore. If you are overwriting any files, a window will pop up asking how to resolve the conflict.

To do a complete restoration, you must reboot your system and open the System Recovery Options from the installation media.