

One of the sure things with computers is that if you use them long enough, you will lose data. Files can become corrupted, malicious software can destroy them, and users can accidentally delete their files. Each of these situations can be a major event if a backup isn't available.

Each Windows operating system supports backing up and restoring data, although there are significant differences among the versions of Windows. Windows Vista introduced a new program for backups, and this program was improved and enhanced in Windows 7.

Windows Vista and Windows 7 both support full image backups. A full image backup captures the entire hard drive contents, including the operating system, applications, and all the user's data. If the drive fails, the image backup can restore the system to its state when the image was captured.

Windows XP

Windows XP includes a backup program that you can use to back up and restore data on a computer. You can start the Back Up Or Restore Wizard with the following steps:

1. Click Start, All Programs, Accessories, System Tools, Backup.
2. Follow the directions in the wizard to back up or restore data.

This tool allows users to easily pick and choose what files they want to back up and restore. It includes the ability to back up everything on the computer to external devices and network locations.

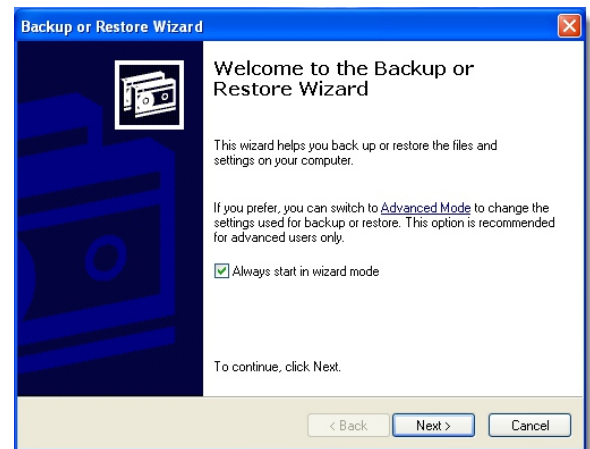


Figure 6-14 Windows XP Backup And Restore Center.

Windows Vista

Windows Vista introduced the Backup And Restore Center, which is significantly different from the backup program included with previous editions of Windows. It allows you to back up and restore files, configure automatic backups, and perform a complete PC backup of the entire system. You can open the Backup And Restore center with the following steps:

1. Click Start, Control Panel. If necessary, change the view to Classic View.
2. Double-click Backup And Restore Center. Your display will look similar to Figure 6-14.

This tool gives you multiple capabilities for backing up and restoring files. You can choose what file types to back up based on categories. For example, you can choose to back up document files and music files. It will then locate all of the files in the category and back them up. You can also back up the entire computer.

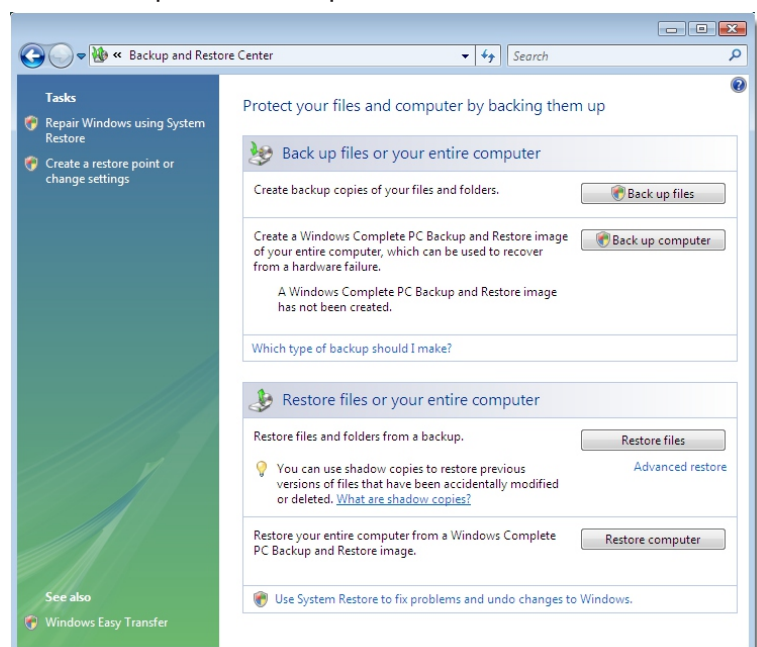


Figure 6-14 Windows Vista Backup And Restore Center on Vista Ultimate.

The Backup And Restore Center allows you to back up data to multiple locations, including the following:

- Internal hard drives. You can't back up data to the same hard drive, but if your system has additional hard drives installed, you can back up data to one of these other drives.
- External hard drives. USB hard drives are relatively inexpensive and easy to plug into a system. When they are plugged in, the Backup And Restore program recognizes them and can be configured to back up to these drives.
- Writable CDs or DVDs. If your computer includes a CD or DVD burner, you can back up data to writable CDs or DVDs. It might take several CDs or DVDs to complete a backup, and you can't use automatic backups with these discs.
- Network locations. Windows Vista Home Premium, Business, and Ultimate editions support backing up to shared folders on network locations. Full image backups cannot be backed up to a network location.

The Windows Complete PC Backup And Restore tool creates an image of your computer. If users do this when they first set up their computer, they can recover the entire computer even if a catastrophic failure prevents the computer from starting. Users can also update the Windows Complete PC Backup image periodically.

Windows 7

The backup program introduced in Windows Vista was enhanced and improved in Windows 7, making it easier to use and configure. It supports both file backups and image backups, just as Windows Vista does. However, a significant difference is that you can choose what files and folders you want to back up in Windows 7. In Windows Vista, you can choose only the file types to back up based on categories.

You can start the Backup And Restore tool with the following steps:

1. Click Start, Control Panel. If necessary, change the view to Large icons.
2. Double-click Backup And Restore.

You can back up data to multiple locations just as you can with Windows Vista. This includes internal hard drives, external hard drives, writable CDs and DVDs, and network locations.

There are two important differences between the capabilities of Windows Vista and Windows 7 backups. On Windows 7, you can create image backups to a network location, but this isn't possible in Windows Vista.

Additionally, you can back up data to USB flash drives as long as they are at least 1 GB in size.

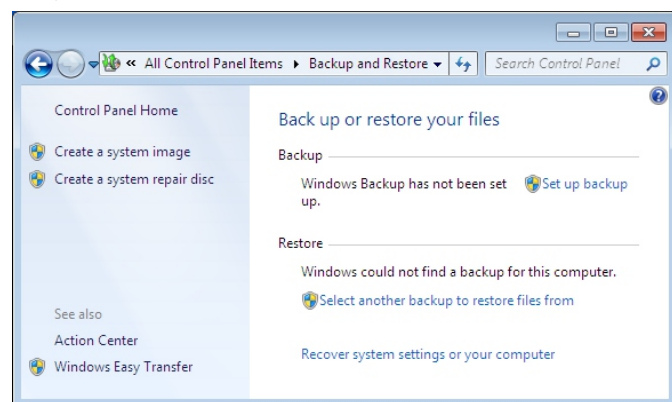


Figure 6-14 Windows 7 Backup And Restore Center on Win 7 Ultimate.

Modifying Documents Location

User data is often stored in the Documents folder, which is part of a user's profile. In some cases, you might need to move the location of the Documents folder but still keep it as part of the user's profile.

For example, if a user has stored a significant amount of data in this folder, the C drive can become low on free space. You can move the data to another drive to free up space on the C drive. The following steps show how this is done on different operating systems:

- On Windows XP, click Start, right-click My Computer, and select Explore to start Windows Explorer. Right-click My Documents, and select Properties. Click Move and browse to the new location. Click Select Folder and click OK. Click Yes to confirm the move.
- On Windows Vista, click Start, Computer to start Windows Explorer. In the Folders area, expand your user profile (your user name). Right-click Documents and select Properties. Click the Location tab. Click Move and browse to the new location. Click Select Folder and click OK. Click Yes to confirm the move. Click OK.
- On Windows 7, click Start, Computer to start Windows Explorer. Expand the Documents folder within Libraries. Right-click My Documents and select Properties. Click Move and browse to the new location. Click Select Folder and click OK.

Program Compatibility

You might run across an application that works in a previous version of Windows but does not work in the version you're using now. You can use the Application Compatibility tool to configure the application to run by using specific settings from a previous operating system.

You can configure the settings manually by right-clicking the application file, selecting Properties, and clicking the Compatibility tab. You'll see something similar to Figure 6-15.

You often need to experiment with different settings. For example, if you're having trouble running an application in Windows 7, you can try to run it using a compatibility mode for Windows XP SP3. If this doesn't work, you can try other settings.

An alternative is the Compatibility Wizard. It checks with a Microsoft site to determine whether there is a known setting that works for the application and, if so, will configure the settings. There are different methods of starting this wizard, including the following:

- On Windows XP, click Start, All Programs, Accessories, and select Program Compatibility Wizard.
- On Windows Vista, click Start, Control Panel. Use the Category View by clicking Control Panel Home. Select Programs and select Use An Older Program With This Version Of Windows.
- On Windows 7, Click Start Control Panel. Change the view to Category view if necessary and select Programs. Select Run Programs Made For Previous Versions Of Windows.

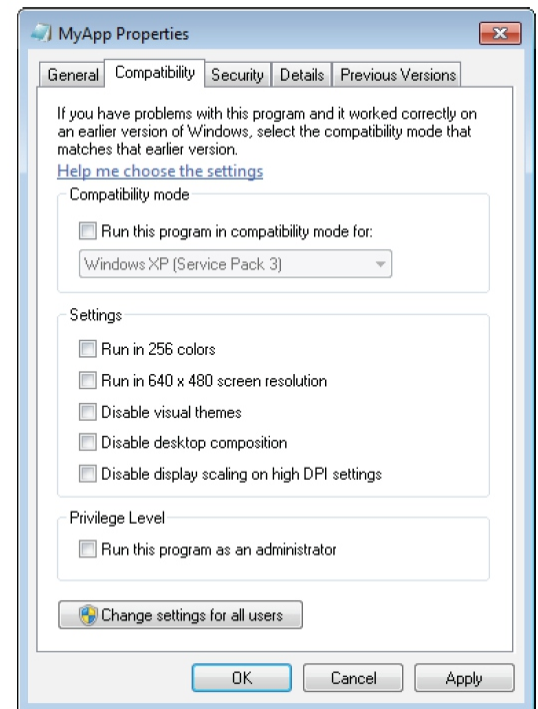


Figure 6-15 Manually configuring program compatibility.

After starting the wizard, select the program and follow the wizard's steps.

ReadyBoost

ReadyBoost is a feature available in Windows Vista and Windows 7 that can speed up a computer by using storage space on a USB flash drive. Your system can use this extra memory to cache disk content. There are a few basic requirements for this to work:

- Must be USB 2.0 or higher.
- It must have a minimum of 1 GB free space. For best performance, use a flash drive with twice as much RAM as your system has.
- ReadyBoost must be enabled on the drive.

You will usually be prompted if you want to use ReadyBoost when you plug a USB device into your system. You can also enable it manually with the following steps:

1. Start Windows Explorer by clicking Start, Computer.
2. Right-click the USB drive and select Properties.
3. Click the ReadyBoost tab.
4. Select Dedicate this device to ReadyBoost, and adjust the amount of space you want to use for ReadyBoost. Your display will look similar to the following graphic. Click OK.

If you want to see a video and read more about ReadyBoost, check out this link: <http://windows.microsoft.com/en-us/windows7/Turn-ReadyBoost-on-or-off-for-a-storage-device>

