Upgrading from Windows XP to Windows 7

We highly recommend that you print this tutorial. Your PC will restart during the Windows 7 installation process, so having a printed copy will help you follow the steps if you're unable to return to this webpage.

To upgrade your PC from Windows XP to Windows 7, you'll need to select the **Custom** option during Windows 7 installation. A custom installation doesn't preserve your programs, files, or settings. It's sometimes called a "clean" installation for that reason.

A custom installation is more complex, and it can sometimes take a couple of hours to complete. We created this five-step tutorial to help guide you through the entire process each step of the way.

What you need

- **An external hard disk.** You'll need to move your files off of your PC before you install Windows 7. To make this easier, we recommend a free download called Windows Easy Transfer, which will require an external hard disk. They're readily available at electronics and office supply stores, and they provide an easy way to add additional storage space to your computer.

- **The original installation discs or setup files for the programs that you want to use with Windows 7.** You'll need to reinstall your programs by hand after installing Windows 7. When you run Windows Easy Transfer you will get a report that lists the programs that you are currently using with Windows XP.

Overview of the process for upgrading from Windows XP to Windows 7

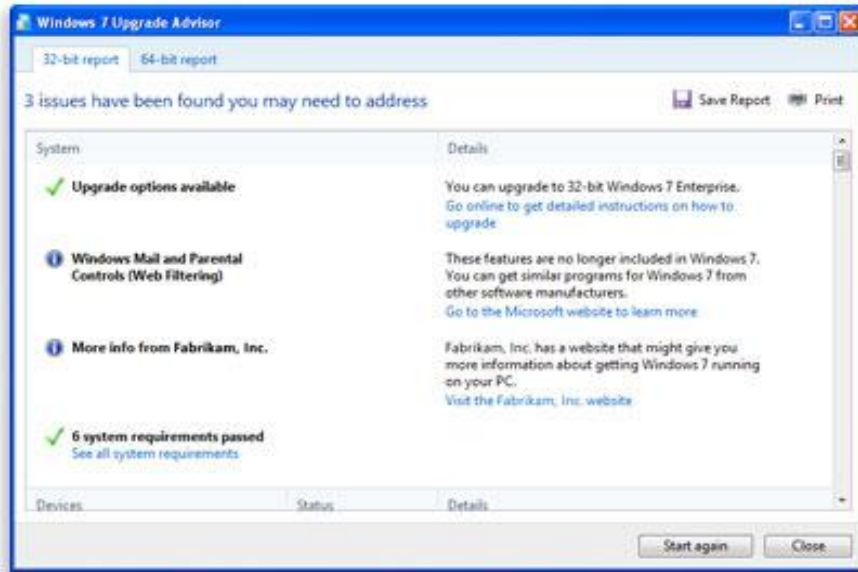## 32-bit or 64-bit: Which version of Windows 7 to install?

Both 32-bit and 64-bit installation discs are included in the Windows 7 package. 64-bit operating systems can handle large amounts of memory—typically 4 gigabytes (GB) of random access memory (RAM) or more—more efficiently than 32-bit operating systems. However, not all computers are 64-bit capable. For more information, see *32-bit and 64-bit Windows: frequently asked questions* (http://windows.microsoft.com/en-us/windows7/32-bit-and-64-bit-Windows-frequently-asked-questions).

You'll probably need the 32-bit version, but to make sure click **Start**, right-click **My Computer**, and then click **Properties**.

- If you don't see "x64 Edition" listed, then you're running the 32-bit version of Windows XP. Step 1 of this tutorial will show you how to run the Windows 7 Upgrade Advisor, which can let you know if your computer is capable of running the 64-bit version of Windows 7.

- If "x64 Edition" is listed under **System**, you're running the 64-bit version of Windows XP and can run the 64-bit version of Windows 7.

Step 1: Make sure that your programs and devices will work with Windows 7

To help find potential compatibility problems with your computer's hardware, devices, or programs that might affect installing Windows 7, download and run the free Windows 7 Upgrade Advisor. It provides a report listing any issues that it finds and gives recommendations on what to do before you upgrade to improve your PC's compatibility with Windows 7.

A report lists any actions needed to prepare your computer for Windows 7.

Download and install Windows 7 Upgrade Advisor

Follow the steps below to download the Windows 7 Upgrade Advisor.

1. Go to the *Windows 7 Upgrade Advisor* (http://go.microsoft.com/fwlink/?LinkId=160680) webpage.

2. Click **Download the Windows 7 Upgrade Advisor**.

3. Click **Download**, and then save the installation file to your PC.

4. Double-click the installation file saved to your PC.

   If you're asked to install .NET 2.0
   Windows 7 Upgrade Advisor requires .NET Framework 2.0. If your computer doesn't have it installed, follow these steps. If you're not asked to install .NET 2.0, you can skip this and proceed to step 5.

   1. Click **Yes**.

   2. Click **Next**.

   3. If you agree to the license terms, click **Install**.

4. Click **Finish**.

5. If you agree to the license terms, click **Install**.

6. Click **Close**.

    If you see a pre-selected check box, clicking **Close** will run Windows 7 Upgrade Advisor.

Run Windows 7 Upgrade Advisor

1. If Windows 7 Upgrade Advisor isn't already running, double-click the **Windows 7 Upgrade Advisor** shortcut on your PC's desktop.

2. In the security warning dialog box, click **Yes**.

3. Click **Start check**. The Windows 7 Upgrade Advisor will scan your PC's hardware, devices, and installed software. This might take a few minutes. When finished, it will provide you with a compatibility report that you can print or save for your reference.

4. Read the report carefully, and make note of any issues that the Upgrade Advisor finds and what the recommended steps are to fix these issues.

5. If you want to save the report and print or refer to it later, click **Save Report**, type a name in the **File Name** box, and then click **Save**.

6. Click **Close**.

You can scan your PC more than once. We recommend running the Windows 7 Upgrade Advisor again after taking any of the recommended steps or making any changes to your PC's hardware, devices, or installed software before upgrading to Windows 7. Be sure to save your updated report.

Step 2: Moving files and settings, and gathering your program discs

We recommend using Windows Easy Transfer, a free download, to help you move your files and settings to another location before you install Windows 7. Then, you can use Windows Easy Transfer again to move your files and settings back to your PC after Windows installation is completed.

If you don't use Windows Easy Transfer, you'll need to copy your files manually to an external location, such as CDs, DVDs, an external hard disk, or a USB flash drive before installing Windows 7, and then move them back after Windows installation is completed.

Windows Easy Transfer helps simplify moving your files and settings.

Windows Easy Transfer creates a single file containing your files and settings. The file could be quite large depending on the amount of data you have, which is why we recommend using an external hard disk.

As you prepare to move your files off of your computer to an external storage device, remember the following:

- Windows Easy Transfer doesn't move your programs, only your files and settings. You'll need to reinstall your programs by hand after Windows 7 installation is complete. Windows Easy Transfer will provide you with a list of programs that you are currently using with Windows XP.

- Don't use the File and Settings Transfer Wizard in Windows XP to move your files. It isn't compatible with Windows 7, and if you use it, you won't be able to restore your files in Windows 7. Use Windows Easy Transfer instead.

- Windows Easy Transfer can't transfer files from a 64-bit version of Windows to a 32-bit version of Windows. If you're running a 64-bit version of Windows XP, but you plan to install a 32-bit version of Windows 7, you'll need to copy your files manually to an external location before installing Windows 7, and then move them back after Windows installation is completed.

- Windows Easy Transfer moves your music and video files, but doesn't migrate the licenses for content protected by digital rights management (DRM). This means that you'll need to re-obtain rights to DRM-protected files from the online store that provided them after you finish installing Windows 7 and restoring these files to your computer. For more information, see **Step 4: Moving your files and settings back to your computer.**

Warning

- Some online stores don't restore rights to their DRM-protected files. For details about store policies, refer to your store's customer support or Help information. If your music or video was obtained from a store that's no longer in business, you won't be able to restore your rights to that content.

You'll also need Windows XP Service Pack 2 or higher. If you're not sure of what you have, click **Start**, right-click **My Computer**, and then click **Properties**. Under **System**, if you see "Service Pack 2" or "Service Pack 3," you can use Windows Easy Transfer. If you're not running Service Pack 2 or 3, go to the *Windows XP service pack* (http://go.microsoft.com/fwlink/?LinkId=160880) page on the Microsoft website to update your PC.

Download and install Windows Easy Transfer

1. Download *Windows Easy Transfer* (http://go.microsoft.com/fwlink/?LinkId=160881) from the Windows website. If you're running a 32-bit version of Windows XP, under **For Windows XP**, click **Download 32-bit**. If you're running a 64-bit version of Windows XP, click **Download 64-bit**.

2. On the **Microsoft Download Center** webpage, click **Download**, and then click **Run**.

3. In the **Security Warning** dialog box, click **Run**.

4. In the **Software Update Installation Wizard**, click **Next**.

5. If you agree to the license terms, select **I Agree**, and then click **Next**.

6. After installation is complete, click **Finish**.

Open and run Windows Easy Transfer to save your files and settings

1. Make sure your external hard disk or other storage device is connected to your computer.

2. Click **Start**, click **All Programs**, and then click **Windows Easy Transfer for Windows 7**.

3. Click **Next**.

4. Select **An external hard disk or USB flash drive**.

5. Click **This is my old computer**, and then wait while Windows Easy Transfer scans the computer.

6. Clear the check boxes next to any user accounts that you don't want to transfer data from, and then click **Next**.

7. Enter and retype a password, and then write it down and keep it in a safe place; or leave the boxes blank, and then click **Save**.

8. Browse to the external hard disk or other storage device where you want to save your Easy Transfer file, and then click **Save**.

Warning

- You must save the Easy Transfer file to your external hard disk or other storage device, and not to the default location **My Computer**. If you don't save the Easy Transfer file to your external hard disk, the file you just created will be deleted during the custom installation of Windows 7.

9. Windows Easy Transfer will begin saving your files and settings. Do not use your computer during this time.

10. When you see the message **These files and settings have been saved for your transfer**, click **Next**.

    Windows Easy Transfer displays the file name and location of the Easy Transfer file you just created. Write down the file name and location so you can easily find it when you're ready to transfer files to Windows 7.

11. Click **Next**, and then click **Close**.

12. Ensure that the file is saved to your external hard disk or storage device, and then disconnect the device from your computer.
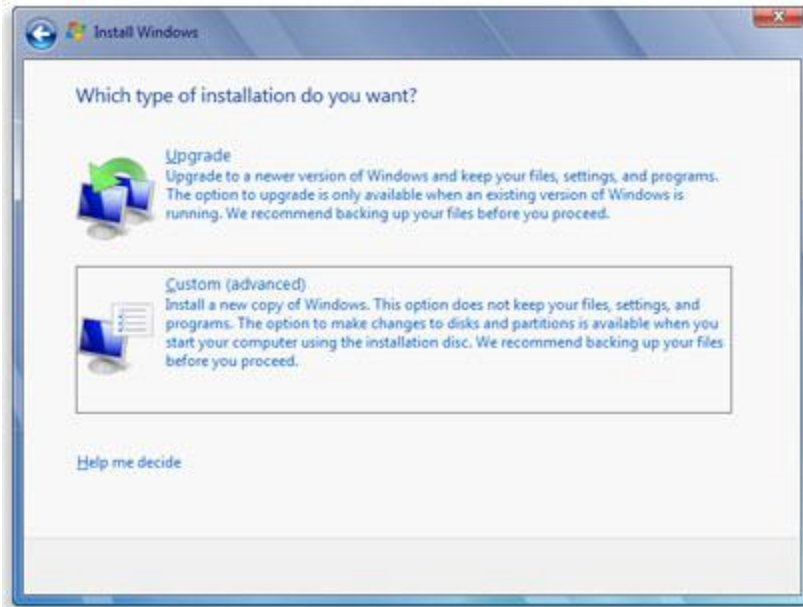
Gather your program discs and setup files

It's important to remember that the Custom installation option doesn't preserve any of your programs, so you'll need to reinstall the programs that you want to use in Windows 7.

- Make sure you have the installation discs for the programs you want to keep using in Windows 7.

- You might have downloaded some programs from the Internet. If you still have the installation files on your computer (often called setup.exe, install.exe, or similar), copy those setup files to your external hard disk as well. If you don't have the installation files, you'll need to download them again after Windows 7 installation is complete.

- If you're running a 64-bit version of Windows and plan to install a 32-bit version of Windows 7, programs that were designed to run only on a 64-bit operating system might not work. Check the software manufacturer's website for more information, or go to the *Windows 7 Compatibility Center* (http://go.microsoft.com/fwlink/?LinkId=160679) website. You can search the Compatibility Center for product names or browse many different categories of hardware and software tested to be compatible with both 32-bit and 64-bit versions of Windows 7.

Step 3: Installing Windows 7

When you choose the Custom option during installation, you install a new copy of Windows on your PC.

The options for Windows 7 installation

Note

- Formatting your hard disk during Windows 7 installation isn't necessary. If you want to format your hard disk, and you're using an upgrade version of Windows 7, don't use a program from another software manufacturer to reformat your hard disk prior to installing Windows 7. Instead, start your PC using the Windows 7 upgrade installation disc or a USB flash drive, click **Custom (advanced)**, and then click **Drive options (advanced)**.

Before you begin

- Connect your PC to the Internet so you can get installation updates during the installation process. (If you don't have an Internet connection, you can still install Windows 7.)

- Update your antivirus program, run it, and then turn it off. After you install Windows 7, remember to turn the antivirus program back on, or install new antivirus software that works with Windows 7.

- If you have a Windows 7 installation package, choose either the 32-bit or 64-bit Windows 7 installation disc, depending on whether you want to install the 32-bit or 64-bit version of Windows 7.

- If you want to install a 64-bit version of Windows 7 on a PC running a 32-bit version of Windows XP, follow the instructions in "To install a 64-bit version of Windows 7 on a computer running a 32-bit version of Windows XP" at the bottom of the page. For more information, see *32-bit and 64-bit Windows: frequently asked questions* (http://windows.microsoft.com/en-us/windows7/32-bit-and-64-bit-Windows-frequently-asked-questions).

- Find your 25-character Windows product key. You can find it on the installation disc holder inside the Windows package—or in a confirmation e-mail if you purchased and downloaded Windows 7 online.

Perform a Custom installation of Windows 7

1. With your computer on and Windows XP running, do one of the following:
   - If you've downloaded Windows 7, browse to the installation file you downloaded, and then double-click it (often identified as an **Application** file under the **Type** column).
   - If you have a Windows 7 installation disc, insert the disc into your computer. Setup should start automatically. If it doesn't, click **Start**, click **My Computer**, open the Windows 7 installation disc on your DVD drive, and then double-click **setup.exe**.
   - If you've downloaded Windows 7 installation files onto a USB flash drive, insert the drive into your computer. Setup should start automatically. If it doesn't, click the **Start** button, click **Computer**, double-click the drive, and then double-click **setup.exe**.

2. On the **Install Windows** page, click **Install now**.

3. On the **Get important updates for installation** page, we recommend getting the latest updates to help ensure a successful installation, and to help protect your computer against security threats. Your computer will need to be connected to the Internet during Windows 7 installation to get these updates.

4. On the **Please read the license terms** page, if you accept the license terms, click **I accept the license terms**, and then click **Next**.

5. On the **Which type of installation do you want?** page, click **Custom**.

6. Choose the partition containing Windows XP (this is often the computer's **C:** drive), and then click **Next**. (Do not select your external USB hard drive.)

7. In the **Windows.old** dialog box, click **OK**.

8. Follow the instructions to finish installing Windows 7, which include naming your computer and setting up an initial user account. You can use the same names that you used in Windows XP, or choose new ones.

To install a 64-bit version of Windows 7 on a computer running a 32-bit version of Windows XP

1. Insert the Windows 7 installation disc or USB flash drive, and then turn off your computer.

2. Restart your computer.

3. Press any key when prompted, and then follow the instructions that appear.

4. On the **Install** Windows page, enter your language and other preferences, and then click **Next**.

   If the **Install** Windows page doesn't appear, and you're not asked to press any key, you might need to change some system settings. To learn how to do this, see *Start your computer from a*

Windows 7 installation disc or USB flash drive (http://prev.windows.microsoft.com/en-us/windows7/Start-your-computer-from-a-Windows-7-installation-disc-or-USB-flash-drive).
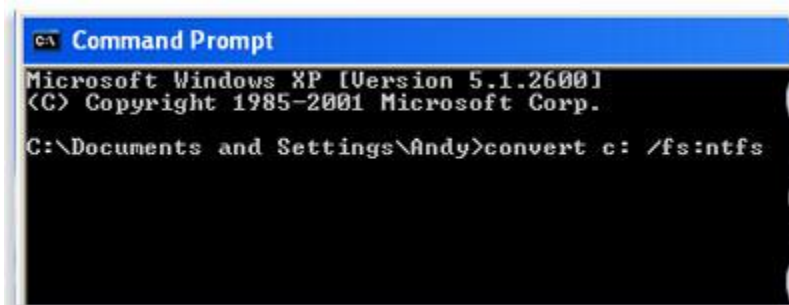
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7. Choose the partition containing Windows XP (this is often the computer's **C:** drive), and then click **Next**. (Do not select your external USB hard drive.)

8. In the **Windows.old** dialog box, click **OK**.

9. Follow the instructions to finish installing Windows 7, which include naming your computer and setting up an initial user account. You can use the same names that you used in Windows XP, or choose new ones.

Troubleshooting installation problems

If an error message states that Windows can't be installed to the partition you chose, and **Show details** reveals a dialog box that says "Windows must be installed to a partition formatted as NTFS," then your computer's hard disk is likely formatted using the older FAT32 file system.

To convert your hard disk to the latest version of NTFS

1. Cancel the Windows 7 installation, and remove the installation disc or USB flash drive.

2. Click **Start**, point to **All Programs**, point to **Accessories**, right-click **Command Prompt**, and then click **Run as…**.

3. Select **The following user**, choose a user with administrator permissions, type the password, and then click **OK**.

4. At the command prompt, carefully type **convert** *<drive>***: /fs:ntfs** where *<drive>* is the letter associated with your Windows XP installation. For example, if Windows XP is on your C: drive, type **convert c: /fs:ntfs** (When you type, be sure to include a space immediately before **/fs:ntfs**)
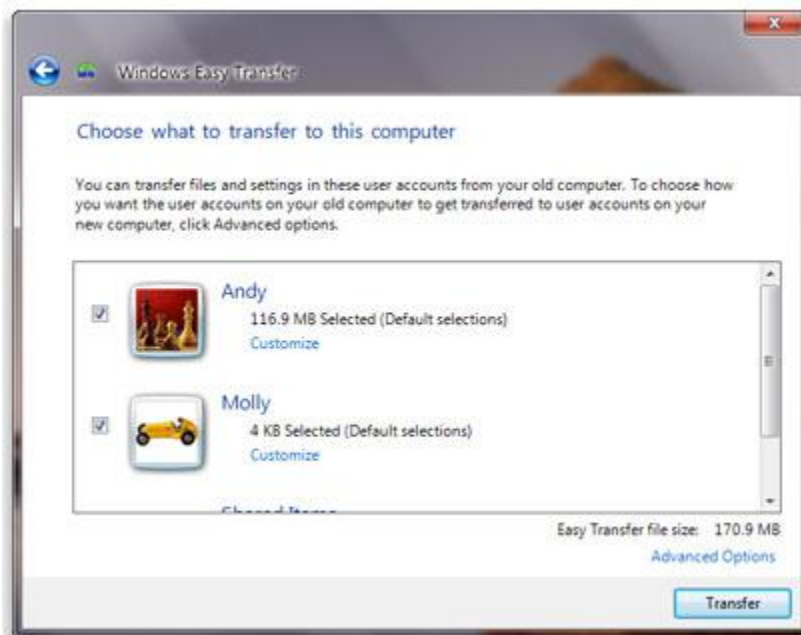

5. Press Enter.

6. When asked if you would you like to force a dismount on this volume, type **Y**, and then press Enter.

7. When asked if you want to schedule the drive to be converted the next time the system restarts, type **Y**, and then press Enter.

8. Close the Command Prompt window.

9. Click **Start**, click **Turn Off Computer**, and then click **Turn Off.** (You need to shut down the computer completely rather than simply clicking **Restart**.)

10. Turn on your computer. Windows will proceed to convert the hard disk to NTFS and then restart your computer. Do not use your computer during this time.

11. When Windows XP starts again, return to step 2 under **Perform a Custom installation of Windows 7**.

Step 4: Moving your files and settings back to your computer

After you've installed Windows 7, now you're ready to run Windows Easy Transfer again and move your files and settings back to your computer.

Be sure you run Windows Easy Transfer before you reinstall your programs. That's because Windows Easy Transfer moves your files back to where your old programs will expect them to be when you reinstall them.

User accounts from Windows XP are moved to Windows 7.

Move files and settings back using Windows Easy Transfer

1. Make sure your external hard disk or other storage device that contains your Windows Easy Transfer migration file is connected to your computer.

2. Click the **Start** button, click **Computer**, and under **Hard Disk Drives,** double-click your storage device.

3. Browse to the location where you saved the Easy Transfer file, called **Windows Easy Transfer – Items from old computer**, and double click the file.

   If you gave the file a different name when you originally created it, browse to that file and double-click it.

4. If you entered a password when creating the Easy Transfer file, type the password, and then click **Next**.

Note

- If you receive an error that you don't have enough free disk space to migrate your files back to your computer using Windows Easy Transfer, you can use Disk Cleanup to delete temporary files left over from your Windows 7 installation and free up additional disk space. To learn how to do this, read the "Post-install clean up (optional)" section at the end of **Step 5: Reinstall your programs and update drivers**.

5. On the **Choose what to transfer to this computer** page, you can decide how the user accounts from Windows XP are transferred to Windows 7.

   - To accept the current account mapping, click **Transfer**.

   - To change how the Windows XP accounts are mapped in Windows 7, click **Advanced Options**.

6. On the **Your transfer is complete** page, click **See what was transferred** to view a list of the user accounts and files that were moved from Windows XP to Windows 7. Click **See a list of programs you might want to install on your new computer** to view what was previously installed on Windows XP.

7. Click **Close**. If you are prompted to restart your computer, click **Restart now**.

If you transferred more than one user account, you might be prompted to change the password the next time you log on. If you're prompted to do so, click **OK**, and in the dialog box that appears, do one of the following:

- If you want to give the user account a password (recommended), type a new password, retype it, and then press Enter. There's no need to type the old password from Windows XP.

- If you don't want to give the user account a password, leave the boxes empty, and then press Enter.

Moving DRM-protected content

Windows Easy Transfer moves your music and video files, including files protected by digital rights management (DRM), but it doesn't move the licenses for these types of files. To re-obtain rights to the files, you'll need to contact the provider of the files. Some online stores offer this and might refer to it in different ways, such as *computer activation, computer authorization, library restoration,* or *license synchronization.*

The procedure for restoring your rights varies from store to store. The store might limit the number of times that you can restore your rights, or limit the number of computers on which you can use the songs or videos that you've obtained from them. Some stores don't permit you to restore rights to DRM-protected files at all. For details about store policies, refer to your store's customer support or Help information. If your music or video was obtained from a store that's no longer in business, you won't be able to restore your rights to that content.

To restore rights to files in Windows Media Player:

If you're using Windows Media Player, you can add online stores and try to re-obtain rights to your music by doing the following:

1. Click the **Start** button, click **All Programs,** and then click **Windows Media Player**.

2. In the Player Library, click the arrow to the right of **Media Guide** at the bottom of the navigation pane, and then click **Browse all online stores**.

3. Click your store, install the store software, and then click a customer service or account management link on the store's webpage.

   Note

   - If you've recorded DRM-protected TV content using Windows Media Center, you won't be able to restore your rights to that content after installing Windows 7.

To restore rights to files in Zune:

If you purchased DRM-protected content from the Zune Marketplace, and used Windows Easy Transfer to move your content to Windows 7, you'll be able to access the content once you reinstall the Zune software and log in. If you didn't move over your content, you can use the restore feature in the Zune software to re-obtain the content and the rights to that content. After you've reinstalled the Zune software, do the following:

1. In the Zune software, click **Sign In**, type your Windows Live ID and your password, and then click **Sign In** again.

2. Do one of the following:

   - For purchased content, click **Settings**, click **account**, and then click **Purchase History**. To locate the content that you want to restore, click **Songs, Movies, TV, Videos, or Music Videos**, and then browse to the content.

   - For Rental or Zune Pass subscription content, click **Settings**, click **account**, and then click **Rental History** or **Subscription History**. Then, locate the content that you want to restore rights to.

3. Next to the content, click **Download**. Or, click **Restore All** to download all the missing subscription content.
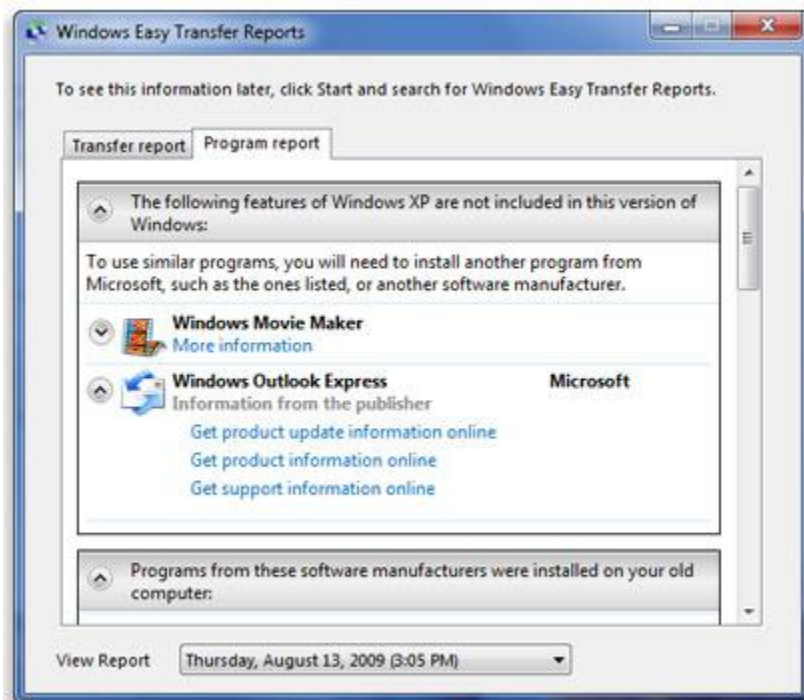
   Note

   - If you try to restore non-DRM-protected content, you will receive an error message.

4. View your media collection to confirm that the content has been successfully restored. Some content might still be downloading and not immediately available.

Step 5: Reinstall your programs and update drivers

After you've run Windows Easy Transfer and your files and settings are back on your computer, you can reinstall your programs and check for new or updated drivers.

Windows Easy Transfer provides a report detailing the programs you used in Windows XP that you might want to reinstall. To reinstall your programs, you'll need to use the installation discs or setup files that you gathered earlier.

A report lists programs that you might want to reinstall.

If your computer came with several programs pre-installed, you might see programs listed in the report that you've never used before or rarely used. When you begin reinstalling programs, start with the ones that you know and use regularly, especially new antivirus software for your computer. If you don't have new antivirus software for your PC running Windows 7, you can look for new programs at the *Windows 7 Compatibility Center* (http://go.microsoft.com/fwlink/?LinkId=160679).

If you have a program that you used in Windows XP that isn't compatible with Windows 7, try using the Program Compatibility troubleshooter. For more information, see *Open the Program Compatibility troubleshooter* (http://windows.microsoft.com/en-us/windows7/Open-the-Program-Compatibility-troubleshooter).

If the troubleshooter can't fix the problem, you might be able to run the program using Windows XP Mode. For more information, see *Install and use Windows XP Mode in Windows 7* (http://windows.microsoft.com/en-us/windows7/install-and-use-windows-xp-mode-in-windows-7).

Note

- Some programs such as Windows Mail and Outlook Express are no longer included in Windows 7. If you used Windows Mail or Outlook Express as your e-mail program, you'll need to install a new e-mail program to read your messages or to send and receive e-mail. For more information about Windows Live Mail and instructions for importing your e-mail, contacts, and calendar, see *Importing your e-mail, messages, contacts, and calendar into Windows Live Mail* (http://windows.microsoft.com/en-us/windows7/importing-your-e-mail-contacts-and-calendar-into-windows-live-mail).

Update drivers

A driver is software that allows your computer to communicate with hardware or devices. Without drivers, the hardware you connect to your computer—for example, a video card or a printer—won't work properly.

In most cases, drivers come with Windows, or you can find them by using Windows Update and checking for updates. To do so, click the **Start** button, click **All Programs**, and then click **Windows Update**.

If Windows Update doesn't have the driver you need, check out the *Windows 7 Compatibility Center* (http://go.microsoft.com/fwlink/?LinkId=160679), which has direct links to driver downloads and manufacturer support pages. For more information, see *Update a driver for hardware that isn't working properly* (http://windows.microsoft.com/en-us/windows7/Update-a-driver-for-hardware-that-isnt-working-properly).

Netbooks and drivers

Some netbooks and laptops that were running Windows XP might not have specific Windows 7 drivers for features such as function buttons. If Windows Update doesn't find a driver, visit your computer manufacturer's website and search for a download or support page where you can search for drivers for your PC.

You can try to install a driver made for Windows XP onto your PC running Windows 7. If the Windows XP driver won't install, you can run the Program Compatibility troubleshooter to try and fix the problem.

1. Download or copy the driver installation file to your computer.

2. Right-click the file, and then click **Troubleshoot compatibility**.

3. Follow the steps in the Program Compatibility troubleshooter to change the compatibility settings for the driver.

Post-install clean-up (optional)

During Windows 7 installation, if you don't format the partition, files that were used in Windows XP are stored in the Windows.old folder. The type of files in this folder depends on your computer.

After you've used Windows 7 for a while, for example one or two weeks, and you're confident that your files and settings are back to where you want them to be, you can safely reclaim disk space and use Disk Cleanup to delete the Windows.old folder.

You can also delete the Windows.old folder if you receive an error during **Step 4: Moving your files and setting back to your computer** of this tutorial that indicates that you don't have enough free disk space to transfer your files and settings back to your computer.

Warning

- Before you use Disk Cleanup, make sure that all of your files and settings moved correctly to Windows 7 where you expected them to be. Deleting the Windows.old folder can't be undone.

1. Click the **Start** button, and in the search box, type *Disk Cleanup*. In the list of results, click **Disk Cleanup**.

    If you're prompted to choose a drive, choose the drive you just installed Windows 7 on, and then click **OK**.

2. Click **Clean up system files**. If you're prompted for an administrator password or confirmation, type the password or provide confirmation.

    If you're prompted again to choose a drive, choose the drive you just installed Windows 7 on, and then click **OK**.

3. Select **Previous Windows installation(s)** and any other categories of files you want to delete.

4. Click **OK**, and then click **Delete Files**.