

12.12.10 System Recovery Facts

System recovery procedures are necessary when you are unable to boot the computer or when other problems prevent it from working properly. Before using recovery tools, try other methods to resolve the problem including:

- Removing problematic hardware or software
- Updating drivers, applications, and operating system files
- Booting into Safe Mode to disable devices or roll back drivers

If these steps do not resolve the problem, use the following tools to recover the system:

Method	Description
System Restore	<p>The Windows 10 Advanced Startup options includes System Restore that enables you to restore your system to a previous state if System Protection is turned on. Windows 10 creates restore points automatically, and you can create additional restore points using the Recovery item in the Control Panel. When using a restore point:</p> <ul style="list-style-type: none"> ■ System changes made since the restore point was taken are undone. Any applications, device drivers, or patches installed since the restore point was taken will be removed when the system is reverted to that restore point. ■ User data is not affected; any files that have been changed since the restore point was taken will remain unchanged when the system is reverted to that restore point. ■ If you choose to restore, the process cannot be undone. You have the option of canceling, but you must do it from this initial screen; don't try to cancel after you start the restore process. <p>Start System Restore using one of the following methods:</p> <ol style="list-style-type: none"> 1. If the system can boot into Windows: <ol style="list-style-type: none"> a. Select Start. b. Select Windows System. c. Select Control Panel. d. In Control Panel, select System and Security. e. Select Security and Maintenance. f. Select Recovery. g. Select Configure System Restore. 2. If the system can't boot into Windows, boot the computer from the Windows installation disc and repair the installation and do the following steps: <ol style="list-style-type: none"> a. Select Troubleshoot. b. Select Advanced Options. c. Select System Restore.
Startup Repair	<p>If Windows won't boot, you can use the Startup Repair option to automatically fix problems. To get to Startup Repair, boot the system from the Windows installation disc and do the following to repair the installation:</p> <ol style="list-style-type: none"> 1. Select Troubleshoot. 2. Select Advanced Options. 3. Select Startup Repair. <p>The repair process does the following:</p> <ul style="list-style-type: none"> ■ Inspects and repairs the boot sector. ■ Verifies that Windows boot files exist and are correctly configured. ■ Compares the checksum for all Windows system files to make sure that they match what's on the installation disc.
Command Prompt	<p>The Windows Recovery Environment provides a Command Prompt option that you can use to manually diagnose and repair system problems. To open the Command Prompt, boot the system from the Windows installation disc and do the following to repair the installation:</p>

	<ol style="list-style-type: none"> 1. Select Troubleshoot 2. Select Advanced Options 3. Select Command Prompt <p>You can use the Command Prompt option in the Recovery Environment to:</p> <ul style="list-style-type: none"> ■ Read boot logs ■ Enable and disable services ■ Read and write data to the hard disk drive ■ Overwrite corrupt or incorrect files (such as repairing a corrupt registry or restoring corrupt operating system files) ■ Format and partition drives ■ Repair a corrupted master boot record <p>When using the Command Prompt to troubleshoot problems, you should first research your problem at the Microsoft Website and print the exact instructions for performing recovery procedures. The Command Prompt provides dozens of commands to display information and make changes. You can access a complete description of these commands and their syntax by typing help or help / [command] at the Command Prompt.</p>
System Image Recovery	<p>If you are unable to repair a system using a restore point, automatic repair, or from the Command Prompt, you can restore the system from a system image backup.</p> <ul style="list-style-type: none"> ■ The restore process reformats hard drives, destroying all existing data. ■ The restore process restores all of the volumes you selected during the system image backup, including all user data on those volumes. However, any changes made since the last time the system image was created will be lost. ■ You cannot restore individual files from a system image backup. <p>If the system is bootable you can restore from a system image backup:</p> <ol style="list-style-type: none"> 1. Select Start. 2. Select Settings. 3. Select Update & Security. 4. Select Recovery. 5. From Advanced startup, Select Restart now. 6. After reboot, Select System Image Recovery. <p>If the system is not bootable, boot the system from the Windows installation disc and repair the installation. You will be taken to the Choose an option window where you can follow the same steps to restore Windows 10 to a previous and hopefully healthy state.</p>
Refresh or Reset This PC	<p>Windows 10 provides advanced recovery options for malfunctioning systems. Reset This PC: Refreshing PC also reinstalls Windows, but your user files and settings are preserved. It also retains the apps that came with the PC as well as any apps you installed from the Windows Store. To use one of these options, boot the computer from the Windows installation disc and repair the installation. Select Troubleshoot and then the refresh or reset option you want to use.</p>
Recovery Disc/Partition	<p>If you purchased your system from a major PC manufacturer, it may include a recovery partition on the hard drive.</p> <ul style="list-style-type: none"> ■ Using the recovery disc/partition restores the system to the state it was in when shipped. ■ The recovery process typically restores a Windows image, which erases the hard drive. ■ Any applications and user data files added since the system was shipped will be lost. If possible, back up any data accessible on the hard disk before performing the recovery. ■ If the system has a recovery partition, the partition might not be visible from within the operating system. To use the recovery partition, edit the BIOS or boot using a special key combination as dictated by the manufacturer. <p>Because using the factory recovery option removes configuration settings and user data, it should be used only as a last resort and only in combination with a good backup.</p>

Use the following methods to recover lost data files:

Method	Description
Backup and Restore	<p>Use Backup and Restore to restore files from a backup set.</p> <ol style="list-style-type: none">1. Select Start.2. Select Windows System.3. Select Control Panel.4. In Control Panel, Select System and Security.5. Select Backup and Restore (Windows 7). <p>When you restore files from a backup, you restore the file as it existed when the backup was taken. You can restore individual files or complete folders from the backup.</p>
File History	<p>You can use File History from within Control Panel > System and Security to restore files or folders.</p> <ol style="list-style-type: none">1. Select Start.2. Select Windows System.3. Select Control Panel.4. In Control Panel, Select System and Security.5. Select File History. <p>When you restore files using File History, you restore the file as it existed when the snapshot was taken if File History is turned on.</p> <p>File History is turned off by default.</p>
Previous Versions	<p>Previous Versions (also called Shadow Copies) takes snapshots of files and folders and protects against accidental deletion or modification of user data files.</p> <ul style="list-style-type: none">■ Previous Versions is available in the Business, Ultimate, and Enterprise editions of Windows 7. It has been replaced by the File History feature in Windows 8 and Windows 10.■ It is turned on by default, and takes regular backups of files that have changed.■ Backups are saved on the same disk. Previous Versions does not protect against disk failure.■ Previous Versions works on entire folders as well as individual files.■ When you view a previous version of a file, it is opened in Read-only mode. You can browse through a previous version of a folder, navigating the directory structure.■ When you restore previous versions, you can copy the previous version to a new location, or restore it to the same location (overwriting the existing version).■ Previous Versions works only on NTFS partitions. <p>Previous Versions is included with Windows 10 for recovery of back-dated versions of a file or folder.</p>