

Knowledge Base

How to install and use the Recovery Console in Windows XP

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The information in this article applies to:

- Microsoft Windows XP Professional
 - Microsoft Windows XP Home Edition
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SUMMARY

To recover your operating system when your computer does not start correctly or does not start at all, you may want to install and use the Windows Recovery console. However, Microsoft recommends this method of system recovery for advanced users only. Also, learn about the Recovery Console command prompt, command actions, rules, how to remove the Recovery Console, and how to install it during an unattended installation.

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INTRODUCTION

Microsoft recommends that you use the Recovery Console only after Safe mode and other startup options do not work. The Recovery Console is recommended only if you are an advanced user who can use basic commands to identify and locate problem drivers and files. Additionally, you must be an administrator to use the Recovery Console.

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MORE INFORMATION**How to install the Recovery Console**

You can install the Recovery Console on your computer to make it available if you cannot restart Windows. You can then select the Recovery Console option from the list of available operating systems during startup. Install the Recovery Console on important servers and on the workstations of IT personnel. This article describes how to install the Recovery Console to your Microsoft Windows XP-based computer. To install the Recovery Console, you must be logged on as an administrator.

Although you can run the Recovery Console by starting directly from the Windows XP CD, it is generally more convenient to set it up as a startup option on your startup menu. To run the Recover Console directly from the CD, see the "[How to use the Recovery Console](#)" section.

To install the Recovery Console, follow these steps:

1. Insert the Windows XP CD into the CD-ROM drive.
2. Click **Start**, and then click **Run**.
3. In the **Open** box, type `d:\i386\winnt32.exe /cmdcons` where *d* is the drive letter for the CD-ROM drive.

4. A Windows Setup Dialog Box appears. The Windows Setup Dialog Box describes the Recovery Console option. To confirm the installation, click **Yes**.
5. Restart the computer. The next time that you start your computer, "Microsoft Windows Recovery Console" appears on the startup menu.

Note Alternatively, you can use a Universal Naming Convention (UNC)-established connection to install the Recovery Console from a network share point.

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How to use the Recovery Console

You can enable and disable services, format drives, read and write data on a local drive (including drives that are formatted to use the NTFS file system), and perform many other administrative tasks. The Recovery Console is particularly useful if you have to repair your computer by copying a file from a disk or CD-ROM to your hard disk, or if you have to reconfigure a service that is preventing your computer from starting correctly.

If you cannot start your computer, you can run the Recovery Console from the Microsoft Windows XP startup disks or the Windows XP CD-ROM. This article describes how to perform this task.

After Windows XP is installed on your computer, to start the computer and use the Recovery Console you require the Windows XP startup disks or the Windows XP CD-ROM.

For additional information about how to create Startup disks for Windows XP (they are not included with Windows XP), click the following article number to view the article in the Microsoft Knowledge Base:

[310994](#) Obtaining Windows XP Setup boot disks

Note To start the computer from the Windows XP CD-ROM, you must configure the basic input/output system (BIOS) of the computer to start from your CD-ROM drive.

To run the Recovery Console from the Windows XP startup disks or the Windows XP CD-ROM, follow these steps:

1. Insert the Windows XP startup disk into the floppy disk drive, or insert the Windows XP CD-ROM into the CD-ROM drive, and then restart the computer.

Click to select any options that are required to start the computer from the CD-ROM drive if you are prompted.

2. When the "Welcome to Setup" screen appears, press R to start the Recovery Console.
3. If you have a dual-boot or multiple-boot computer, select the installation that you must access from the Recovery Console.
4. When you are prompted, type the Administrator password. If the administrator password is blank, just press ENTER.
5. At the command prompt, type the appropriate commands to diagnose and repair your Windows XP installation.

For a list of commands that are available in Recovery Console, type `recovery console commands` or `help` at the command prompt, and then press ENTER.

For information about a specific command, type `help commandname` at the command prompt, and then press ENTER.

6. To exit the Recovery Console and restart the computer, type `exit` at the command prompt, and then press ENTER.

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How to use the Recovery Console command prompt

When you use the Recovery Console, you are working at a special command prompt instead of the ordinary Windows command prompt. The Recovery Console has its own command interpreter. To enter this command interpreter, you are prompted by Recovery Console to type the local Administrator password.

When the Recovery Console starts, you can press F6 to install a third-party SCSI or RAID driver, in case you need such a driver to access the hard disk. This prompt works the same as it does during installation of the operating system.

The Recovery Console takes several seconds to start. When the Recovery Console menu appears, a numbered list of the Windows installations on the computer appears. (Generally, only c:\Windows exists.) Press a number before you press ENTER, even when only one entry appears. If you press ENTER without selecting a number, the computer restarts and begins the process again.

When you see the prompt for %SystemRoot% (generally C:\Windows), you can start using the available commands for

the Recovery Console.

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Command actions

The following list describes the available commands for the Recovery Console:

- **Attrib** changes attributes on one file or subdirectory.
- **Batch** executes commands that you specify in the text file, Inputfile. Outputfile holds the output of the commands. If you omit the Outputfile parameter, output appears on the screen.
- **Bootcfg** modifies the Boot.ini file for boot configuration and recovery.
- **CD (Chdir)** operates only in the system directories of the current Windows installation, removable media, the root directory of any hard disk partition, or the local installation sources.
- **Chkdsk** The **/p** switch runs Chkdsk even if the drive is not flagged as dirty. The **/r** switch locates bad sectors and recovers readable information. This switch implies **/p**. Chkdsk requires Autochk. Chkdsk automatically looks for Autochk.exe in the startup folder. If Chkdsk cannot find the file in the startup folder, it looks for the Windows 2000 Setup CD-ROM. If Chkdsk cannot find the installation CD-ROM, Chkdsk prompts the user for the location of Autochk.exe.
- **Cls** clears the screen.
- **Copy** copies one file to a target location. By default, the target cannot be removable media, and you cannot use wildcard characters. Copying a compressed file from the Windows 2000 Setup CD-ROM automatically decompresses the file.
- **Del (Delete)** deletes one file. Operates within the system directories of the current Windows installation, removable media, the root directory of any hard disk partition, or the local installation sources. By default, you cannot use wildcard characters.
- **Dir** displays a list of all files, including hidden and system files.
- **Disable** disables a Windows system service or driver. The variable *service_or_driver* is the name of the service or driver that you want to disable. When you use this command to disable a service, the command displays the service's original startup type before it changes the type to SERVICE_DISABLED. Note the original startup type so that you can use the **enable** command to restart the service.
- **Diskpart** manages partitions on hard disk volumes. The **/add** option creates a new partition. The **/delete** option deletes an existing partition. The variable device is the device name for a new partition (such as \device\harddisk0). The variable drive is the drive letter for a partition that you are deleting (for example, D). Partition is the partition-based name for a partition that you are deleting, (for example: \device\harddisk0\partition1) and can be used instead of the drive variable. The variable size is the size, in megabytes, of a new partition.
- **Enable** enables a Windows system service or driver. The variable *service_or_driver* is the name of the service or driver that you want to enable, and *start_type* is the startup type for an enabled service. The startup type uses one of the following formats:
 - SERVICE_BOOT_START
 - SERVICE_SYSTEM_START
 - SERVICE_AUTO_START
 - SERVICE_DEMAND_START
- **Exit** quits the Recovery Console, and then restarts the computer.
- **Expand** expands a compressed file. The variable source is the file that you want to expand. By default, you cannot use wildcard characters. The variable destination is the directory for the new file. By default, the destination cannot be removable media and cannot be read-only. You can use the **attrib** command to remove the read-only attribute from the destination directory. The option **/f:filespec** is required if the source contains more than one file. This option permits wildcard characters. The **/y** switch disables the overwrite confirmation prompt. The **/d** switch specifies that the files will not be expanded and displays a directory of the files in the source.
- **Fixboot** writes a new startup sector on the system partition.
- **Fixmbr** repairs the startup partition's master boot code. The variable device is an optional name that specifies the device that requires a new Master Boot Record. Omit this variable when the target is the startup device.
- **Format** formats a disk. The **/q** switch performs a quick format. The **/fs** switch specifies the file system.
- **Help** If you do not use the command variable to specify a command, **help** lists all the commands that the Recovery Console supports.
- **Listsvc** displays all available services and drivers on the computer.
- **Logon** displays detected installations of Windows and requests the local Administrator password for those installations. Use this command to move to another installation or subdirectory.

- **Map** displays currently active device mappings. Include the **arc** option to specify the use of Advanced RISC Computing (ARC) paths (the format for Boot.ini) instead of Windows device paths.
- **MD (Mkdir)** operates only within the system directories of the current Windows installation, removable media, the root directory of any hard disk partition, or the local installation sources.
- **More/Type** displays the specified text file on screen.
- **Net Use** connects to a remote share for the Windows XP Recovery Console. The following text describes the syntax for this command:

```
NET USE [devicename | *] [\\computername\sharename[\volume] [password | *]]
        [/USER:[domainname\]username]
        [/USER:[dotted domain name\]username]
        [/USER:[username@dotted domain name]
        [/SMARTCARD]
        [/SAVECRED]
        [[/DELETE] | [/PERSISTENT:{YES | NO}]]

NET USE {devicename | *} [password | *] /HOME

NET USE [/PERSISTENT:{YES | NO}]
```

- **Rd (Rmdir)** operates only within the system directories of the current Windows installation, removable media, the root directory of any hard disk partition, or the local installation sources.
- **Ren (Rename)** operates only within the system directories of the current Windows installation, removable media, the root directory of any hard disk partition, or the local installation sources. You cannot specify a new drive or path as the target.
- **Set** displays and sets the Recovery Console environment variables.
- **Systemroot** sets the current directory to %SystemRoot%.

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Recovery Console rules

Several environment rules are in effect while you are working in the Recovery Console. Type `set` to see the current environment. By default, these are the rules:

- **AllowAllPaths = FALSE** prevents access to directories and subdirectories outside the system installation that you selected when you entered the Recovery Console.
- **AllowRemovableMedia = FALSE** prevents access to removable media as a target for copied files.
- **AllowWildCards = FALSE** prevents wildcard support for commands such as **copy** and **del**.
- **NoCopyPrompt = FALSE** means that you are prompted by the Recovery Console for confirmation when overwriting an existing file.

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How to delete the Recovery Console

To delete the Recovery Console:

1. Restart your computer, click **Start**, click **My Computer**, and then double-click the hard disk where you installed the Recovery Console.
2. On the **Tools** menu, click **Folder Options**, and then click the **View** tab.
3. Click **Show hidden files and folders**, click to clear the **Hide protected operating system files** check box, and then click **OK**.
4. At the root folder, delete the **Cmdcons** folder and the **Cmlldr** file.
5. At the root folder, right-click the **Boot.ini** file, and then click **Properties**.
6. Click to clear the **Read-only** check box, and then click **OK**.

Warning: Modifying the Boot.ini file incorrectly may prevent your computer from restarting. Make sure that you delete only the entry for the Recovery Console. Also, change the attribute for the Boot.ini file back to a read-only state after you finish this procedure. Open the Boot.ini file in Microsoft Windows Notepad, and remove the entry for the Recovery Console. It looks similar to this:

```
C:\cmdcons\bootsect.dat="Microsoft Windows Recovery Console" /cmdcons
```

7. Save the file and close it.

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How to install Recovery Console during an unattended installation

To install the Recovery Console during the unattended installation of Windows, you must use the [GuiRunOnce] section of the unattend.txt file.

```
Command1="path\winnt32 /cmdcons /unattend"
```

For more information about how to use the Unattend.txt file, see the *Deployment Planning Guide* of the Windows 2000 Server Resource Kit.

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REFERENCES

You can use Group Policy to change the rules and expand the power that you have in the Recovery Console.

For additional information about how to do this, click the following article number to view the article in the Microsoft Knowledge Base:

[310497](#) How to use Group Policies to add more power to the Recovery Console

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