

Knowledge Base

Differences Between Manual and Fast Repair in Windows

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The information in this article applies to:

- Microsoft Windows 2000 Server
 - Microsoft Windows 2000 Advanced Server
 - Microsoft Windows 2000 Professional
 - Microsoft Windows 2000 Datacenter Server
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SUMMARY

Windows includes two repair choices: Manual Repair or Fast Repair.

To see these choices, boot from the Windows installation media, press R to repair, and then press R to use the Emergency Repair process. When you do this, you see the following options:

- Manual Repair: To choose from a list of repair options, press M.
- Fast Repair: To perform all repair options, press F.

The two repair choices cause the Repair process to perform different tasks.

MORE INFORMATION

IMPORTANT: Please do not perform a manual or fast repair on a domain controller without specific knowledge of how to back up the Active directory database. If you do these options on a Windows 2000 Server domain controller you run the risk of overwriting the Active directory database at \WINNT\NTDS\ntds.dit.

The Ntds.dit file contains your Active Directory, including user accounts.

Manual Repair

The Manual Repair option provides the following choices:

```
[X] Inspect startup environment
[X] Verify Windows system files
[X] Inspect Boot Sector
Continue <perform selected tasks>
```

Inspect Startup Environment

This option checks the ARC path in the boot.ini file for a path to the Windows boot partition and %SystemRoot% folder. It does this by using the Setup.log file on the Emergency Repair disk by reading the following values:

```
[Paths]
TargetDirectory = "\\WINNT"
TargetDevice = "\\Device\Harddisk1\Partition1"
SystemPartitionDirectory = "\"
SystemPartition = "\\Device\Harddisk1\Partition1"
```

If the Boot.ini file is missing, a new one is created with a valid ARC path. If the Boot.ini file is present, the ARC path is checked and updated if needed.

Verify Windows System Files

This selection verifies that each file in the Windows system/boot partition is good and matches the files that were originally installed. This includes the Ntldr, Ntdetect.com, Arcsetup.exe, and Arcldr.exe files that are used for booting various computers. The optional Ntbootdd.sys file is never checked. Repair performs this check by using the Setup.log file to compare cyclical redundancy check (CRC) values for each file. If files are missing or corrupted, you are prompted to replace or skip the file. If you choose to replace the file, you need the Windows installation CD-ROM or an OEM driver disk that contains the correct file(s).

Inspect Boot Sector

This option repairs the active system partition boot sector and reinstalls the boot loader functionality. If the partition uses the FAT or FAT32 file system and contains a non-Windows boot sector, this repair option also creates a new Bootsect.dos file to be used to dual-boot MS-DOS, Microsoft Windows 95, or Microsoft Windows 98 if these operating systems were previously available to be booted. If you also select the **Inspect Startup Environment** option and a new Bootsect.dos file is created, Repair adds the following entry to the Boot.ini file:

```
C:\ = "Microsoft Windows"
```

Note that the Manual Repair option does not give you a choice to repair the Windows registry files.

Fast Repair

The Fast Repair option performs all the repairs as the Manual Repair option, but you are not prompted for choices. Additionally the Fast Repair option tries to load each Windows registry file (SAM, SECURITY, SYSTEM, and SOFTWARE). If a registry file is damaged or cannot be loaded, Repair copies the missing or corrupted registry file from the *SystemRoot\Repair* folder to the *SystemRoot\System32\Config* folder.

Because the Fast Repair option can replace registry files with those from the *SystemRoot\Repair* folder, it may revert parts of your operating system configuration back to the time when Windows was first installed. If this occurs, you need to restore your last "system state" backup or manually copy a more recent version of the registry files from the *SystemRoot\Repair\Regback* folder to the *SystemRoot\System32\Config* folder by using Recovery Console. The files that are located in the Regback folder are from the last time you created an Emergency Repair Disk and choose the option to also back up the registry files to the repair folder.

General Information

Both the Manual Repair and Fast Repair options start by performing a system/boot partition file system check. If file system problems are detected and corrected during this portion of the Repair process, you may need to restart your computer and start another Repair process before the actual repair operations take place.

Neither of the repair options replaces the *SystemRoot\System32\Config*.nt or *Autoexec*.nt files. Although these files are located on the Emergency Repair Disk, they are not checked or replaced during any Repair operations.

For computers without a local CD-ROM drive attached (for example, if Windows was installed by using Remote Installation Service, or RIS), it is possible to repair system files by using one of the methods described in the following Microsoft Knowledge Base articles:

[164471](#) Replacing System Files Using a Modified Emergency Repair Disk

[229716](#) Description of the Windows 2000 Recovery Console

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