▣ **Optimising Windows**

The index lists help topics available. Use the scroll bar to see entries not currently visible in the Help window.

For further information on using help, press F1 or choose Using Help from the Help menu.

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Optimising 386 Enhanced Mode

386 enhanced mode should be your operating mode of choice unless you are running Windows on a 286 or you have software which requires standard mode. The 386 enhanced operating mode gives you access to virtual memory and multitasking of DOS sessions, although it will run slightly more slowly than standard mode. You also require enhanced mode operation in order to share resources under Windows for Workgroups.

Windows' performance in enhanced mode can be optimised in three different ways:

▶ **Optimising your swap file**
If you have over 12Mbyte of RAM, then you may be able to achieve a significant speed increase by turning off your swap file. This will give you considerably faster program operation at the expense of reduced memory capacity. However, a swap file is mandatory for anyone running enhanced mode with less memory. Use the following rules:

▶ If you have more than one physical hard disk, create the swap file on the fastest.
▶ Always defragment your hard disk before creating a new swap file.
▶ Use 32-bit access if your system will allow it.
▶ Alter the scheduling timeslices for DOS applications via the Control Panel.

▶ **Optimising your system files**
The operation of enhanced mode will also depend upon the settings in your startup files.

CONFIG.SYS
▶ Use FILES=40 and BUFFERS=10 if you are using SmartDrive.
▶ Unless you have very little memory, always load device drivers into upper memory.
▶ Always load DOS high.
▶ Use a RAM disk for temporary files if you have enough memory (upwards of 8Mbyte).

AUTOEXEC.BAT
▶ Use SmartDrive unless you have a very fast cacheing hard disk controller.
▶ Unless you have very little memory, always load TSRs into upper memory.

WIN.INI
▶ Pare down your WIN.INI as much as possible, pruning it to remove unused sections left over from deleted programs.
▶ Loading too many programs or fonts on starting Windows will slow it down.

SYSTEM.INI
▶ Using Adobe Type Manager or a third party font-scaling utility will slow down Windows' startup.
▶ Periodically check to see if there are any unused device drivers which may be removed.
▶ Set **FileSysChange=No** in the **[386Enh]** section to avoid slowing down the File Manager with DOS programs which create and delete files.
▶ Set **NoEMMDriver=Yes** in the **[386Enh]** section if your Windows programs do not need expanded memory.

▶ **General optimisation**
The performance of your system can always be increased by adding more memory. If you have a memory expansion board, then configure it as extended memory unless it is very slow - if so it is better used as a RAM disk.

See also:

![W] Optimising Standard Mode

Standard mode should be used if there is no alternative (you have a 286 or standard mode specific software) or if you need the small increase in speed it gives you over enhanced mode. If the latter case is true, think very carefully before choosing standard mode since the disadvantages may well outweigh the benefits.

Standard mode can be optimised in three different ways:

▶ **Optimising your swap disk**
Use the following rules:

▶ If you have more than one physical hard disk, set the application swap disk to the fastest one by setting its location in SYSTEM.INI's **SwapDisk=** line.
▶ Delete unnecessary BAK and TMP files.

▶ **Optimising your system files**
The operation of standard mode will also depend upon your system files:

CONFIG.SYS
▶ Use FILES=40 and BUFFERS=10 if you are using SmartDrive.
▶ Always load DOS high.
▶ Use a RAM disk for temporary files if you have enough memory (upwards of 8Mbyte).

AUTOEXEC.BAT
▶ Use SmartDrive unless you have a very fast cacheing hard disk controller.

WIN.INI
▶ Pare down your WIN.INI as much as possible, pruning it to remove unused sections left over from deleted programs.
▶ Loading too many programs or fonts on starting Windows will slow it down.

SYSTEM.INI
▶ Using Adobe Type Manager or a third party font-scaling utility will slow down Windows' startup.

▶ **General optimisation**
The performance of your system can always be increased by adding more memory. If you have a memory expansion board, then configure it as extended memory unless it is very slow - if so it is better used as a RAM disk.

See also:
Optimising Memory
Optimising the Display
Optimising the Hard Disk
Optimising Windows Performance

Optimising Memory

▶   Configure all your memory as extended, **not** expanded.
▶   If you need expanded memory outside of Windows, then use a third-party memory manager such as QEMM which can provide both expanded and extended memory on demand.
▶   Use a RAM disk for temporary files if you have enough memory (upwards of 8Mbyte).
▶   If your system has a static RAM cache then make sure that it is configured to cache the whole of the memory space.
▶   If you have a 386 or 486, then use a memory manager to load TSRs and device drivers into upper memory blocks (UMBs).

Optimising the Display

▶ Use a low resolution such as 640 by 480 for extra speed.

▶ Use a 16-colour driver for speed.

▶ If operating at 800 x 600 Super VGA resolution, then try using the Microsoft supplied Generic Super VGA driver - it is often faster than the older manufacturer-supplied ones.

▶ Do not use wallpaper or patterns on your desktop. Use a neutral colour (grey, for example) instead.

▶ Make sure you have the latest drivers for your display adaptor.

Optimising the Hard Disk

▶   Defragment your hard disk regularly with a utility such as Norton's Speed Disk.
▶   If you have an old-style MFM or RLL drive, then make sure that the interleave is set to the optimum value, as recommended by the manufacturer.
▶   Run **CHKDSK** frequently from the DOS prompt to find lost clusters. Use **CHKDSK /F** to fix any problems. (Warning: do NOT attempt this from a DOS session under Windows).
▶   Delete .TMP files when Windows is not running.
▶   Use SmartDrive with its default settings unless you have a very fast cacheing hard disk controller.

Optimising Windows Performance

- ▶ Do not run DOS programs in the background unless absolutely necessary.
- ▶ Prune unnecessary entries from your WIN.INI file.
- ▶ Remove unnecessary fonts from your system via the Control Panel.
- ▶ Use one, and only one, font-scaling utility. Do not use a third party utility in conjunction with TrueType - it will slow the system down.

Optimising Printing

▶   Use the Fast Printing Direct to Port option available via Control Panel's printer applet.
▶   Set your TEMP variable to point to a RAM disk if you have enough memory (Upwards of 8Mbyte) or a fast hard disk.
▶   Use one, and only one, font-scaling utility. Do not use a third party utility in conjunction with TrueType - it will slow the system down.
▶   Make sure you have the latest driver for your printer.

Optimising Networks

▶ If running Windows for Workgroups, tune your system via the Networks section of Control Panel.

▶ If you are not running Windows for Workgroups, load as many of your drivers as possible into upper memory using EMM386 or a third-party memory manager.

Getting the best from your system

▶   Read Windows User each month for the latest hints and tips on getting the best from Windows.

About Windows User

Windows User, from Reed Business Publishing, was the first newsstand magazine solely devoted to all things Windows. Each month, Windows User analyses all the news from the world of Windows, reviews major new hardware and software products and provides a wealth of background information for Windows users everywhere.

Windows User is well known for the quality of its in-depth reviews and for its coverage of Windows hardware. A thriving question-and-answer section and the innovative Points and Clicks pages serve to make Windows computing easy and fun for all our readers.

Windows User also runs a conference on the CIX on-line service - at the prompt type **join windows_user**. This is an open conference where readers and the Windows User team can discuss issues arising from the magazine, swap ideas and explore some of the cultural issues surrounding Windows. In addition we try to deal with readers' technical problems, and shareware programs, macros and hints and tips are regularly uploaded to the file area.

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