Working with **Windows 95**

Let's get practical — Eleanor Turton-Hill helps you get to grips with the new operating system.

Following much hype and a great deal of media debate, people are finally getting to grips with the day-to-day practicalities of Windows 95.

Nevertheless, judging from some of the emails and phone calls I've been getting recently, there are still lots of users out there who could do with a beginner's overview of the new OS (operating system).

Here, I'll be explaining some of the technical terms which are used when talking about operating systems, as well as providing a quick, practical overview of how to get started.

Installation requirements

Microsoft states that to install Windows 95 you'll need at least a 386 processor with 4Mb of RAM (Random Access Memory)

and 35 to 45Mb of spare hard disk space.

In practice, such a machine chokes at the mere thought of Windows 95 and you can forget running any useful applications. I'd recommend a minimum spec of a DX2/66 processor with at least 8Mb of RAM and 50Mb of spare hard disk space — and by "spare" hard disk space, I mean enough free space to install the operating system.

If you intend to install Microsoft Office, or any other applications built specifically for Windows 95, you'll need a decent amount of spare space in addition to this if you're really going to benefit. Hard disks are pretty cheap these days so it's worth treating your aged PC to some extra breathing space in the form of a new 850Mb (or even a 1Gb) hard disk. The former costs just over £100.

Windows 95 and the 32-bit applications

which go with it are hungry for both hard disk space and memory, so when it comes to the RAM in your system the same rule applies; the more you can get your hands on the better.

Unlike hard disks, however, RAM is expensive, so you'll have to weigh up the pros and cons if your machine is in need of a significant upgrade. You can get hold of Windows 95 itself for as little as £60 but the money you pay out in hardware upgrades can easily run into hundreds of pounds.

Preparing your system for Windows 95

There are a few clean-up tasks which it will pay you to perform before you start the installation program:

1. First, defragment your hard disk (see last month's *Hands On Beginners*). This will rearrange all the free space on your hard disk into one, uninterrupted area giving the new OS a clean start.

2. Next, check your system for viruses. If there are any lurking around, now is the time to get rid of them.

If anything goes wrong with your Windows 95 installation, you want to be able to eliminate viruses from the list of possible causes. Lots of common viruses can be identified and cleared using MSAV (Microsoft Anti-Virus) which is included in DOS 6.

If you want to be really thorough, use a third party virus tool which has been updated on a regular basis.

3. Make yourself a boot disk so that you can start your PC from the floppy drive if necessary.

Do this by going to the File Manager in Windows 3.1. Insert a clean floppy into the A: drive and go to the Disk menu. Select Make System Disk from the menu and the essential system files will be copied to your floppy.

The installation program

Installing Windows 95 is a fairly self-explanatory process and you'll find that the documentation is quite clear, should you be unsure of anything.

● If you're upgrading from Windows 3.1, you should start the setup program from within Windows.

● Go to File, and then Run, from the Program Manager and type d:setup (if you're installing from CD-ROM).

The initial Welcome screen appears and examines your system for the required amount of hard disk space. If you don't have enough, the installation will let you know early on in the process.

● Unless you have vast amounts of spare

Is Windows 95 a better operating system?

On the whole, the improvements incorporated into Windows 95 make it a more usable, more stable and more fully-featured operating system (OS). Two things from which you will benefit right away are the improved stability of the system when multitasking, and better handling of system resources.

One of the fundamental weaknesses of Windows 3.1 is that all applications, as well as the operating system code, share a single address space called the system VM (Virtual Machine). The single address space model is bad news when it comes to system integrity, because applications are not protected from each other and key portions of the operating system remain exposed to buggy programs which can cause the entire OS to crash.

Ideally, each application should be run in its own independent session, or VM, where it is protected from other applications and does not jeopardise the OS itself: thus, when an application fails, the effect of the failure should be limited to the session in which it is running.

Effectively, what VMs do is to protect the system against crashes by ensuring that applications do not write to each other's address spaces. But Windows 95 goes some way towards sorting this out by providing private address spaces for Win32 executables. Unfortunately, Win16 programs still execute as a single process within a shared address space which means that one faulty 16-bit app can still bring down the whole system. Despite this, however, the new OS is generally a good deal more stable than previously.
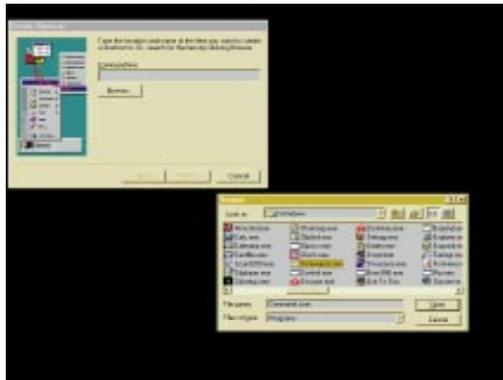

Setting up your desktop

Windows 3.1 users like myself will be used to Alt-Tabbing back to the Program Manager to open new applications. Here, I've set up a folder full of shortcuts to all my most commonly-used applications. This can be left open all the time so that you can switch back to it

Here, you can see that the files and folders showing in the Start Menu folder in the Windows directory are mirrored on the menu itself; so you can edit the menu directly from Explorer

To create a shortcut to the DOS prompt, create a path to command.com

it is automatically added to the menu list.

The desktop is less cluttered in Windows 95 than it was in previous versions. The interface design is based on thousands of hours of usability testing and careful analysis of the type of tasks which all kinds of users perform.

When you minimise applications, they sit on the Taskbar at the bottom of the screen so you always know exactly which applications you are running at any time.

Tips to help you find your way

The combination of the Start button and the Taskbar gives quick access to most common operations. Here are a few tips to help you find your way around:

● Press F1 at any time to go into the Windows 95 Help system. This will display information which is relevant to your location on the desktop. You can also search the help system index for a subject area if you want an explanation or a step by step list of instructions.

● Right-click on everything. The right mouse button is used extensively all around the desktop of Windows 95.

If you're not sure what something does, right-click on it and you should find out by way of a menu or information box. Look out for the Properties option on menus as this allows you to change the appearance of objects on the desktop.

● Experiment with your desktop. The Taskbar can be dragged and dropped to any side of the screen, and you can force it to hide by clicking the Auto-hide check box. Go into the Display option in the Control Panel to control the colours, screen savers and wallpaper.

● Edit the Start menu but don't bother with the Taskbar settings dialogue box. Instead, open up Explorer and take a look in the Start Menu folder in the Windows directory. All files and folders listed here are mirrored on the actual Start Menu. You can add new program icons to the menu simply by dragging and dropping.

● Make use of shortcuts. They provide a way of accessing an application, document or drive from the desktop without having to manually root around for it. All you need to do is drag and drop the executable file on to the desktop, or right-click on the desktop and select New, ShortCut, and then Browse to find the file.

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hard disk space, it's a good idea to install Windows 95 directly over your previous Windows installation. That way, your existing applications will be set up and ready to use from Windows 95 when you've completed the installation.

If you install Windows 95 in a separate directory, you will have to reinstall all your applications before you can get started.

● During the installation you will be asked if you want to save your existing system files. I would strongly recommend that you answer "yes" to this as it allows the whole installation process to be reversible.

Your old system files will take up about 6Mb of valuable space on your hard disk and although this may seem extravagant, it is worth doing. If Windows 95 fails to install correctly, you can get your Windows 3.1 system back. If it installs okay, then

you can delete the 6Mb of system files.

Interface enhancements

The Windows 95 interface takes some getting used to and feels quite awkward at first. The Program Manager no longer exists and the File Manager has been replaced by the "Windows Explorer".

When you Alt+Tab to move between applications, a box appears in the middle of the screen showing icons for all the applications you have open. But you can't move back to the Program Manager to start up a new program because it's not there anymore.

In Windows 95 everything hinges on the "Start" button on the Taskbar. This gives you access to all the applications and utilities on your system via a series of menus. When you install a new application