Waiting for the off

Tim Nott turns his attention to a common complaint: what to do if Win95 fails to tell you when your PC is safe to turn off. Plus lots of hints and tips, with purrfectly good advice from a cat!

I've been devoting a separate section of my column recently to quick answers to readers' problems; but Andy Bedford's cannot be answered shortly. Since it's a common problem, I'll treat it in detail. He writes: *"My computer advises 'Please wait while your computer shuts down'. I've been waiting three hours now and I want to go home! Only joking. But my PC never gets to the 'It is now safe…' screen."*

There are a number of reasons why this can happen, and it's such a tedious business trying to eliminate them that I'm going to take it in two chunks. We'll start this month with the most likely suspects. Often it's because a program is not shutting down properly.

1. The first thing to do is check that no programs are running when you shut down. If it only happens when a certain program is running, then there's your culprit. Even if no windows are open, there may be something running in the background or on the System Tray. Press Ctrl+Alt+Del and End Task for everything running except Explorer. You may get a "This program is not responding…" message, in which case you've probably caught the troublemaker.

2. If not, but Windows then shuts down cleanly, you can eliminate suspects by End Tasking each in turn, then closing Windows.

3. If the culprit is a program you don't recognise, or haven't run, then Windows is probably loading it at startup. Check the StartUp folder, and the Load and Run lines in WIN.INI. (Hint: the best way to edit this, and other files mentioned here, is to run SYSEDIT.) Next, run REGEDIT and check

Fig 1 **All this for free; but you'll have to find it**

the entries in the Registry under

```
HKEY_LOCAL_MACHINE \SOFTWARE
\Microsoft \Windows \CurrentVersion
\Run
```

4. Next, check it's not sound-related. Go to Sounds in Control Panel and deselect the Exit Windows and Close Program events. If this cures it, then either one of the sound files is corrupt, or there is a hardware or sound driver problem.

5. Next, check the problem doesn't arise from a line in autoexec.bat or config.sys. Restart the computer, hit the F8 key when the Starting Windows 95 message appears, and choose "Step-by-step confirmation" from the menu. Answer Y to:
● Load Doublespace driver (if it appears).
● Process the system registry.
● DEVICE=C:\WINDOWS\HIMEM.SYS.
● DEVICE=C:\WINDOWS\IFSHLP.SYS.
● Load the Windows graphical user interface.

● Load all Windows drivers.
Answer N to everything else.

If that cures the problem, then it's being caused by a line in autoexec.bat or config.sys. So repeat the confirmation business, this time answering Y when asked to process config.sys and autoexec.bat, then by whatever tedious process of elimination you choose, isolate the culprit. When you've done this, edit config.sys or autoexec.bat accordingly, placing a REM at the beginning of the offending line — it will then be ignored on start-up. It's possible that this might be an old "real mode" driver, so if everything still works you have nothing to worry about.

If the problem still persists, it could be an old virtual device driver. Look in the [386Enh] section of SYSTEM.INI for lines starting "Device=" and ending "386". REM each one out in turn (hint: a semicolon here works just as well), to see if that fixes the problem. If you find the culprit here, then it's going to take independent detective work on your part to find its owner: right-click Properties, Version, is a good start.

For the love of bunny

Those with long memories might remember the first edition of the *Hands On Windows 95* column (July '95). In that, I mentioned full window dragging which was an option in early beta versions: as you moved a window around the screen, the contents remained visible instead of just the outline. Later beta versions removed the option, but it could be re-enabled by putting ILOVEBUNNY32=1 in WIN.INI. No, I am not kidding.

The final release removed the feature

Fig 2 **How did it get there?**
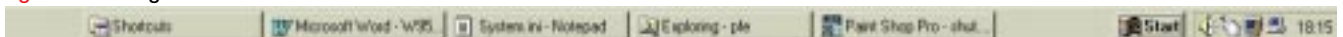
Tim'll fix it

Q Like many PC users, I am considering adding a second hard drive to my PC. Is there an easy way for me to keep my CD's drive letter as D: to avoid the problems with software installed from CD, including Microsoft Office and Windows 95 itself? If not, is there an easy way to persuade the software to accept the fact that my CD is now at F: rather than D: for installation of additional Windows components?

Steve O'Connor

Fig 3 PFE's Open defaults to All Files

A This problem is common, and the bad news is you can't keep the CD-ROM at D:. Formatting and partitioning the new hard disk will bump it down accordingly. Although this is too late to help, Steve, what you can do is to plan ahead, keeping plenty of space for new hard disks (or removable media backup drives), by setting your CD-ROM drive further down the alphabet.

Go to Control Panel, System, Device Manager. Find your CD-ROM drive and click Properties. Select the Settings tab, and in the Reserved drive letters section, set both the start and end letter to the one you want the CD drive to use. OK back out of all dialogs, and restart the PC.

The best time to do this is just after having installed Windows but before installing other software. However, this will cause a minor problem with Windows Setup. Should you want to add or remove components you'll get a "Can't find…" error message, followed by a dialog in which you can specify the new path.

If you want to avoid this minor annoyance there is a simple registry tweak. Using Regedit, go to **HKEY_LOCAL_MACHINE \SOFTWARE \Microsoft \Windows \CurrentVersion \Setup** and look for an entry in the right-hand pane entitled SourcePath. Double-click on this to change it from D:\WIN95 to the new value.

Q I often need to edit HTML files using Notepad. I have a shortcut on the desktop to Notepad and have changed its properties to open in the required folder. However, each time I select File/Open, I need to change "Files of Type" to "All Files" so that I can see the HTML files, and select the one I need. This is tedious. Can I change the default to "All Files"? Should I be going about this is a fundamentally different way?

Chris (*no surname given*)

A No *and* yes, in short. Notepad will remember "All files" for subsequent File/Opens in the same session but the only way to get this to be the default is to hack Notepad.exe with a Hex editor.

One solution is to use a better text editor. PFE (Programmers File Editor) is known and loved by many readers. It's wonderful for this sort of thing, opens multiple files and has many well thought-out features. And as Fig 3 shows, it solves Chris's problem. It's available in 3.1, 95 and NT versions, was written by Alan Phillips at the University of Lancaster and is completely free. Now there's a generous man.

The other solution is to use a different method. Instead of having a shortcut to Notepad on the Desktop, why not have a shortcut to the folder containing the HTML files? Then add a shortcut to Notepad in the Windows\SendTo folder, and you'll be able to right-click on any file and load it into Notepad with the Send To… command.

Q How can you tidy up the Add/Remove Programs folder which contains old program names

which have not been properly removed, or which have been deleted by other means?

Steve Lawson

A The difficult way is to open the Registry in REGEDIT.EXE , then go to the branch **HKEY_LOCAL_MACHINE \SOFTWARE \Microsoft \Windows \CurrentVersion \Uninstall** and remove the offending entry from the list. The easy way is to use the Add/Remove feature of Tweak UI. If you haven't got this, it is available free as part of the Microsoft Powertoys, from a multitude of web sites.

Q Is it safe to remove the *.chk files (e.g. File0001.chk, File0002.chk and so on) which I have in my root directory? They are taking up over 15Mb of space.

Robin Kenny

A These are "lost clusters", which are basically chunks of data that have been orphaned without a file name. They have probably arisen as the result of a crash or power cut. If you have lost recognisable data, e.g. text, you might just find it lurking in one of these. Otherwise, delete them.

responding…". Hit the End Task button.
5. Wait… a new instance of the Taskbar and Start button (i.e. the Explorer Windows shell) will load.

Catisfaction guaranteed
Reader Peter McGarvey has been suspiciously quiet for a while but, true to form, he's come up with a magnificently arcane tip this month, which he claims was discovered by his cat. Do you want the truly bizarre details? Of course you do.

Peter does things in DOS (well, someone has to). Without getting too sidetracked, there's a MODE command that you can use to change, among other things, the number of lines on the screen. There's also loads of stuff you can do with ANSI.SYS, such as assign strings of characters to a keystroke. Anyway, to cut a long story short, Peter had assigned a key using an ANSI escape sequence to return MODE CO80, which is DOS-speak for change the DOS display 80 characters per line.

Over to Peter: *"One day I shut down Windows and up popped my version of the power off message. At this point one of my cats, Oz Beast, jumped up to say hello, landing on my keyboard. After the obligatory assurances that she was, without a doubt, the cutest feline in the whole universe, I went to turn off my PC and noticed something very strange. The most excellently designed and mildly amusing screen, which I created specially to indicate that my computer was ready to be turned off, was missing. In its place was a command prompt. I thought about this and realised that Oz must have done something to cause this. After much trial and error, I discovered that it was the MODE CO80 hotkey which caused this. Furthermore, I discovered that actually typing MODE CO80 did it as well."*

Well, there you have it. I find it only works if you use an explicit WIN command to start Windows, either from a DOS prompt or in autoexec.bat. But since this is the first time a cat has contributed to this column, a tin of tuna fish is on its way to Oz Beast.
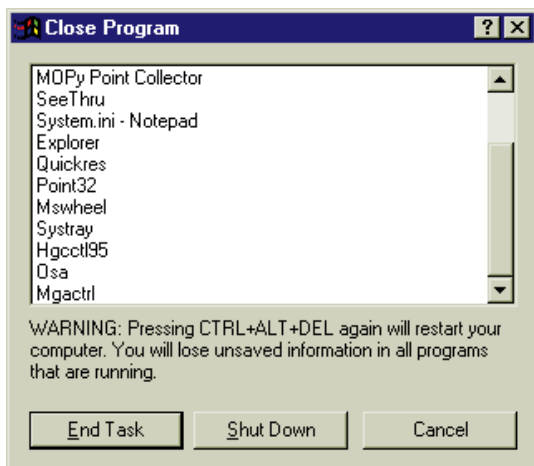
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entirely but you could get it as part of the Plus! Pack. An extra page in Display, Properties offered desktop icon changing, font smoothing, full window dragging and other options (Fig 1). I don't know how well Plus! is selling these days, but when I came across something called the Microsoft Font Smoother, it rang a bell. The file is named W95GRAY.EXE and I found it on the Microsoft (UK) web site. It seems to be freely available elsewhere but we haven't been able to put it on our *PCW* CD as the licence agreement precludes this.

Fig 4 Good grief: who started this lot?

The file is self-installing, and you're asked if you want to add font smoothing. However, it adds not just this, but the entire Plus! page to display properties. At least, the later version, weighing in at 174,120 bytes, does.

Department of incredibly obscure tips
■ Simon Smith has a Help hint. "*I find the help for DOS commands (e.g. DIR /?) a bit poor. I recommend copying the*

QBASIC.EXE, HELP.COM and HELP.HLP files from the Other\OldMS-DOS directory on the Win95 CD-ROM to your Windows\Command folder. You can then get concise help on DOS commands with decent examples given, by typing 'Help (command)' at the command prompt. It's DOS 6.22-specific but it's still helpful."

This next one's from Irfan Shabbir, in Karachi. Click on the Start button, then press Esc, which will close the menu but keep the button in focus. Hold down the Alt key and press the minus sign key. A little system menu will appear. Type M and you'll be able to use the arrow keys to move the Start button along the Taskbar (Fig 2). Hit Enter when it's where you want it.

Even more amusing is that the situation is now rather unstable: you may find the button suddenly shoots back to its old position. It may also disappear, in which case, Control + Esc will find the Start menu. As a variation, try C-for-close on the little system menu. The Start button will disappear and Control + Esc won't work either, but everything else will be normal.

I suppose I really ought to tell you how to get the button back. This can be quite a seriously useful technique if Explorer, the Windows "shell", goes belly up. What you need to do is load a new instance of the shell, as follows (see also Fig 4):
1. Ctrl+Alt+Del to get the Close Program dialog.
2. Select Explorer, then click End Task.
3. Click No in Shut Down Windows dialog.
4. Wait… a box titled Explorer will appear stating that "This program is not

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Joining the **association**

Tim Nott has the answer to installation routines which poach your file associations when you load image processing software — here's an easy way to restore the status quo.

O ne of my pet hates is installation routines that lay waste to your carefully associated file types. Image processing software is the worst, as there are many common file formats.

I like to have all the non-proprietary formats, such as GIF, TIFF and JPG open with PaintShop Pro as it's quick to load and simple to use, but often, installing other bitmap applications overwrites the association. Corel PhotoPaint used to be the worst, as it would poach the associations each time it was run, so the labour of putting it all back was wasted. Well, that particular poacher has turned gamekeeper: when you install the latest PhotoPaint it asks you which, if any, file associations you'd like it to create. Let's hope the other developers aren't too proud to copy this admirable feature.

But putting it all back is difficult. Go to View/Options/File Types, scroll down to Paint Shop Pro "Image", and in the File Type Details panel you'll see a list of extensions associated with the file type.

If you click in this list you can scroll through it horizontally (assuming there are more entries than space) but you can't edit it. You have to create a new file type and then create a new Action. Of course, if the extension is already "owned" by another file type, it won't let you. And you can't remove an extension from an existing file type, because you can't edit the list. Which is where we came in. So, you have to delete the file type of the usurper first, then create two new file types, and so on… It really doesn't bear thinking about.

The expert's way around this is to edit the associations between extensions and file types in the Registry, under
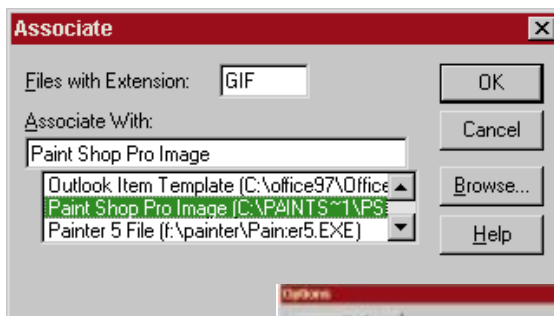
Change the association (left) in File Manager and see the results in Explorer (below)

On the phone again
In June, I dealt with Philip Dodd's problem of silencing an audio CD when the phone rings by creating a shortcut to C:\WINDOWS \SNDVOL32.EXE /t, assigning a keystroke combination, then hitting the latter followed by M to mute the sound.

In August's column, Peter McGarvey showed us how to do this with a single keystroke combination, by using the FlexiCD applet that comes with PowerToys: "*A shortcut with the target C:\WINDOWS\ FLEXICD.EXE /resume and the shortcut key CTRL + ALT + P. This also corresponds to Alt Gr + P, which I can hit with my right hand as I move it towards the phone.*"

Now it's the turn of Stephen Muirhead, who wrote from the Isle of Arran: "*If you use the CD player that comes with Windows, instead of FlexiCD, you will notice that all you need do to pause the CD is hit the space bar.*" Nice and simple, Stephen, but you're still a few bytes short of a book token. This only works if the CD player has the focus. Fine if you're just using the PC to play music, but if you're doing something else on the PC, you'll need to scrabble around on the desktop or taskbar, or Alt + Tab your way back to the CD player. Of course, you could always create a keyboard

HKEY_CLASSES _ROOT, but there's a much easier way to put things back as they were. Open File Manager — yes, the old Windows 3-style precursor to Explorer that lurks under the name of WINFILE.EXE. Go to File/ Associate… and type the required extension in the box provided.

Choose an application from the list. Hit OK, close File Manager and restart Windows. You'll find that all the fiddling about has been done for you and that the extension reappears in the file type.

What actually happens is that File Manager creates the association in WIN.INI. When Windows restarts, it processes WIN.INI and transfers any new entries to the Registry. Incidentally, this can also be the cause of phantom file types that return mysteriously after you have removed the application and the file type. You can cure this in a similar way from File Manager by associating the extension with "None".

shortcut to CD Player but that resets play to track one, as well as being pretty well where we started in terms of keystrokes.

Department of incredibly obscure tips
Jason Ozin has solved a mystery that has been lying around since August 1996, when I published Garan Jenkin's wonderful tip for getting different hard drive icons in Explorer or My Computer. As it's short, I'll recap.

First, create a text file in the root of a drive named AUTORUN.INF. This should contain two lines as follows:
```
[autorun]
icon=path\filename,number
```
where the second line points to an icon in a file.
```
C:\WINDOWS\SYSTEM\PIFMGR.DLL,4
```
for example, will extract the fifth icon (the numbering starts at zero) from that file — an apple. You can look at the icons in a file from the Properties box of any shortcut; hit the Change Icon button, then Browse. If the file has just one icon (for instance, an ICO file) omit the number. Once you've saved the file you'll see the new, customised icon replacing the boring disk symbol in folders and elsewhere. I remarked at the time that I couldn't get this trick to work with floppies; and therein lies the mystery.

Over to Jason with a Registry hack, so the usual warnings apply about backing up and not blaming me (or Jason) should it all end in tears. Start Regedit and go to
```
HKEY_CURRENT_USER\Software\
Microsoft\Windows\CurrentVersion\
Policies\
Explorer - NoDriveTypeAutoRun
```
This has a default value of 95 00 00 00, and according to Jason, the last three bytes do nothing. Double-click on the key and change the first byte of the value data to 91. OK the change and close Regedit. Windows will look for Autorun.inf files on floppies, too, and support the same icon trick. You'll have to wake it up by pressing F5 when you change disks, and it means that loading a floppy takes

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Custom icons for floppies, too. Jason Ozin tells us how (see "Department of incredibly obscure tips", this page)

a little longer. But obstacles such as these never deter a true obscure-tip enthusiast.

Password, what password?
A few months ago, up at the posh end of the magazine, I told the (true, I swear) story of the person who actually believed a password was ***** because that's what they'd seen when the boss logged in. I'd go mad if I had to type in a password each time I connected to the internet, for instance, so like many others I tick the Save Password box. Windows caches all my passwords in an encrypted file and furnishes them as and when I need them. This is fine until I need to *know* the password, to log in from another PC, say. Of course, I haven't a clue what it is. So I'm left staring at a row of asterisks.

Most online services have a way around this where you call customer support, give them sufficient information to identify yourself and get a new password issued. But you're going to feel a total wally should you have to do this, so use Snadboy's Revelation to save the phone call and the embarrassment.

Run Revelation, drag the cross over to the box of asterisks, and the real password will be disclosed in the Revelation window. Incidentally, even if you type your password, it's a good way of making sure you've done so correctly. It seems Microsoft is peeved about this, for a variety of reasons. The bad reason is that some two-bit outfit has cracked its encryption and, might I add, in an elegant way. Also, it compromises security.

If Burglar Bill has a copy of Revelation on a floppy, he can lift all your passwords without you knowing, then hack your ISP account at his leisure. He can take the computer, and any money, credit cards and valuables you

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Five quick keystrokes

1. Minimise the window with Alt + Space, N.
2. Maximise it with Alt + Space, X.
3. F5 re-reads the contents of an open folder.
4. Tab moves between controls in a dialog box — useful if you're entering information.
5. The key sequence for minimising all windows without a Windows 95 keyboard, that I forgot in September's column, is Ctrl + Esc, Esc, Alt + M. Thank you, Alex Helfet.

Tim'll fix it

Q How do I get a key combination back after deleting a shortcut key? Windows won't let me assign the key combination to a new shortcut, even though I've deleted the old shortcut and the program to which it pointed. Also, I get an error message when I press the old shortcut key combination.
Donna Freeman

A Somewhere on the Desktop, in the Start menu or in sub-folders of the latter, lurks another shortcut with the same keystrokes assigned to it. This could happen if, say, you deleted a shortcut, created a new one with the same keystrokes and then undeleted the first. However, there is a bug in Windows which lets you duplicate key combinations directly. If you just type a letter or number into the box, Windows automatically adds the Ctrl + Alt keys. If that keystroke combination is already assigned, then it still passes. If you hold down the Ctrl and Alt keys explicitly, Windows won't let you duplicate an existing combination.

Q I know it's possible to open a folder in two-paned Explorer view by right-clicking and then Explore, but I'd like to make this the default so it happens with a double left-click instead of the single pane view. But I fear this will need a Registry hack.
George Cayla

A Go to View/Options in any folder or Explorer Window and select the File Types tab. Scroll down to Folder (not File Folder) and hit the Edit button. A dialog opens, with a list of actions. The default action, Open, will be shown in bold type. Select Explore and click Set Default.

Q Windows appears to have changed the wording in the taskbar buttons, from My Documents to C:\WINDOWS\DESKTOP\My Documents, thereby reducing the usefulness of the taskbar button, and everyone becomes C:\WIN. Anyway, I can't remember it being like this before!
Bob Butler

A This can easily be cured. Go to any folder View/Options/View box and turn off "Display the full MS-DOS path…"

Q I can't remember the command to type into the Run box to display the make-up of my computer (i.e. BIOS, CPU and so on). Can you help?
Lynn Robson

A Nor could I, when I received Lynn's email, but what I think she means is the MSD.EXE application. This can be found in the OTHER\MSD folder on the original Win95 CD. It's a DOS program and doesn't get installed with Windows. It will warn that the information might not be accurate when run under Windows. A better way is to go to Control Panel/System, select the Device Manager tab, and Print. You have a choice between a system summary, which takes around two pages, or a blow-by-blow account of all system devices, which takes longer.

Q Do I need to run RegClean regularly to maintain my Registry? What exactly does it do?
LS Caton

A RegClean is a utility which originally shipped with Visual Basic but is also available free as a standalone utility. Its purpose is to clean up after applications

that are no longer installed but may have left Registry entries behind which could potentially cause problems with OLE automation. I tried it once and was not impressed; it was very user-unfriendly and didn't appear to do what it claimed. The version is available from the Microsoft web site; it's RegCln41.EXE. You should not use previous versions if you have Office 97 as it can cause problems with VBA's OLE automation. Personally, I'd give it a miss.

Q I am having a problem getting the Autorun function to work on my computer, because I think someone has erased the executable file. Can I re-install Autorun without having to re-install Windows, as copying the .exe file from the Win95 CD doesn't work?
Peter Symons

A Hang on, I think you may have the wrong end of the stick here. The AUTORUN.EXE *file* is what should run when you put the CD in, and will obviously vary from disc to disc. To enable/disable the Autorun *feature*, go to Control Panel/System/Device Manager. From the list, find your CD-ROM drive and click on Properties. On the Settings tab, make sure "Auto insert notification" is ticked.

If it still doesn't work, maybe you have Real Mode drivers loaded for the CD. Check AUTOEXEC.BAT for a line referring to MSCDEX.EXE. This will refer to a driver (a .SYS file) loading in CONFIG.SYS. Disable both by putting a REM statement at the beginning of the line and reboot the computer. With IDE CD drives, Windows should find these: you'll see the icon appear in My Computer. Failing this, try Control Panel, Add New Hardware.

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might have lying about. In matters of security, common sense is more important than cryptography, so if your PC is not in a secure environment, it's foolish to cache your passwords anyway. Even without Revelation, it makes it possible for a visitor to access what should be private. In a company, cacheing passwords is dumb.

How can you stop users doing this? If you use System Policies, run Poledit and open the Local Computer icon. Under Local Computer Properties, click Network, Passwords, tick Disable

Password Cacheing. Or, run Regedit and go to

```
HKEY_LOCAL_MACHINE\SOFTWARE\
Microsoft\Windows\CurrentVersion
\Policies\Network
```

Add the new key DisablePwdCaching as a DWORD and give it a value of 1.

Over to you

■ David Bachtold would like to add the Show/Hide system file command in the Explorer View/Options/View to the right-button pop-up menu.

■ Anthony Atkinson would like to add

dividers to the Start menu, like the one that separates Shut Down from the rest.

I said the first can't be done without writing a shell extension program, and the latter can't be done at all: creating a folder that uses a series of underlines in its name, is cheating. Anyone care to prove me wrong?

The upper hand

Don't be a slave to convention: Tim Nott saves you hours of work with an unusually stress-free way to migrate your Win95 installation to a new hard drive — show it who's master.

Remember that new hard drive you bought a short while ago? Remember how roomy it felt when you first installed Windows 95? Remember that feeling of alarm one month later, when your Windows folder and its contents effortlessly topped 200Mb? Is that 1.2Gb drive starting to feel a little cramped?

Fortunately, hard disks aren't that expensive. My first disk upgrade (to 65Mb in 1990) cost under £200, as did its 200Mb replacement, the 500Mb job I bought to replace that, and the current 1.7Gb incumbent. I'm now wistfully looking at the ads for 4Gb drives at a similar price.

The hair-tearing problem is how to add the drive. Modern motherboards can usually take two IDE devices on each of two channels, with each channel having a master and a slave device. Usually the new driver is faster, so you want it as master; in other words, as C, not D. So how do you migrate your carefully acquired Windows installation to the new disk without hours of tedious reinstalling and reconfiguring all your settings? Here's how to do it. Please note I haven't tried this myself, but I'm assured by the writer that he's done many of these.

1. First, back up anything irreplaceable, then create a Windows 95 floppy boot disk and make sure FDISK.EXE is copied onto it.
2. Set the old and new drives as master and slave respectively, using their jumpers.
3. Start up in MSDOS mode, then Fdisk and Format the new drive. Use the /s switch with the format command to make it a system (bootable) disk.
4. Load Windows, then disable virtual memory from Control Panel/System/ Performance/Virtual Memory. (You have to choose "Let me specify…" to wake up the "Disable" check box.)

Fig 1 Transform your icon titles with Mike Strong's See Thru

5. Steel yourself for a severe bollocking from a message box and close down the system.
6. Restart Windows. Open Explorer and check that "show all files" is enabled from "Options/View". Use Ctrl + A to select everything in drive C: then right-click and copy. Right-click on D: and paste.
7. When it has finished, shut down Windows and turn off the PC. Swap the jumper settings so the new drive is the master.
8. Boot from the floppy, run Fdisk and make C: the active partition. Reboot, restart Windows, go back to Control Panel to turn virtual memory back on, and the job's done.

Keeping paint off the wallpaper

Over the past two years I've had lots of enquiries about how to make the background of text labels transparent so that only the letters themselves are displayed and the wallpaper appears between them. My stock answer is that firstly, you can't do this, and secondly, it's a

bad idea anyway as you cannot be certain that the lettering will contrast sufficiently well with the background to be legible.

But, as ever, I'm always delighted to be proved wrong, so hats off to Mike Strong whose See Thru utility not only does this very thing but also lets you choose any colour your system supports, for the text itself. My only criticism is that it is yet another addition to the Task Bar System Tray. I suppose that's better than giving it a whole button to itself but I'd rather see it integrated into Control Panel. Anyway, it works, and I like the effect: see the little snippet of my Desktop (Fig 1). I have set the text colour to a subtly pale grey.

See Thru is on our CD-ROM as STUP102V.ZIP, including the runtime Visual Basic files required. If you already have MSVBVM50.DLL and COMDLG32.OCX, then the file you want is STUP102.ZIP. Members of CIX can also download it from the Windows/ Files_32 topic.

Hide and seek

Darren "loyal subscriber"(*sic*) — unusual surname, that — emailed me with the following: "As you know, there is a way of hiding selected system files in Win95, such as real or virtual device drivers, DLLs, SYS files and hidden files. I would like to know if there is a way of changing these file endings to include others or exclude the current file

Tim'll fix it

Q How can I get rid of all the .TMP files that clog up my hard disk? They seem to get everywhere, not just the Windows\Temp folder.

Carol Dickinson

A Choose "Find -Files or Folders…" from the Start menu. Select the drive you want to search and type *.TMP into the "Named" box. Make sure "Include subfolders" is ticked. When it's finished, you can delete all the files that weren't created since you last started the PC. (Hint: click on the "Modified" column header to arrange these by date.)

Now for the clever bit. From the Options menu, make sure Save Results is not ticked. Now Save Search from the File menu. You'll get an icon on your Desktop (which you can move elsewhere) that will open a new search dialog with the details already filled in. You can use this for other file types you might want to weed out regularly, such as .BAK.

Q My wife is cross-stitch crazy and searches the net looking for designs. Is it possible to convert a scanned image into a pattern suitable for cross-stitching by using Windows' ability to display individual pixels for, say, a 100 x 100 grid in 16 colours?

Graeme Elliott, Sri Lanka

Fig 4 Stitch it up in Windows Paint

A No worries, Graeme. Open the image in Windows Paint (Fig 4), it must be a BMP, then look under Image/Attributes with the Pels button ticked. This will tell you the size of the image in pixels. Now use the Image/Stretch and Skew command to reduce this to the number of squares you want: you'll have to work out the percentage and repeat the process for the vertical and horizontal axes. Now "Save As…" a 16-colour bitmap.

Go back to Attributes and note the size, with inches or centimetres selected. Using the Stretch command again, increase this to the printed size you want. If you want to stretch by more than 500 percent you'll have to do it in two stages. The image will enlarge, but will display and print as enlarged square pixels.

It's easier if you've got PaintShop Pro and you can use more formats: just resize the picture to the required pixels, reduce to the number of colours required, then tick the Use Full Page option in Page Setup before printing.

Q Help! How can I recover deleted data from a floppy disk? It does not go to the Recycle Bin.

Chris Wicks

A First, check that you have UNDELETE.EXE in the C:\WINDOWS\ COMMAND folder. If not, you should copy it from the OTHER\OLDMSDOS folder on the Windows 95 installation CD.

Restart the PC in MSDOS mode and at the command prompt type

```
LOCK A:
UNDELETE A:
```

If nothing has written to the disk since the deletion, then for each deleted file you will receive a message that shows the deleted file name with a question mark replacing the first letter and asking if you want to undelete it. Answer "Y", and you will be prompted to supply the first letter. When you have finished undeleting, type:
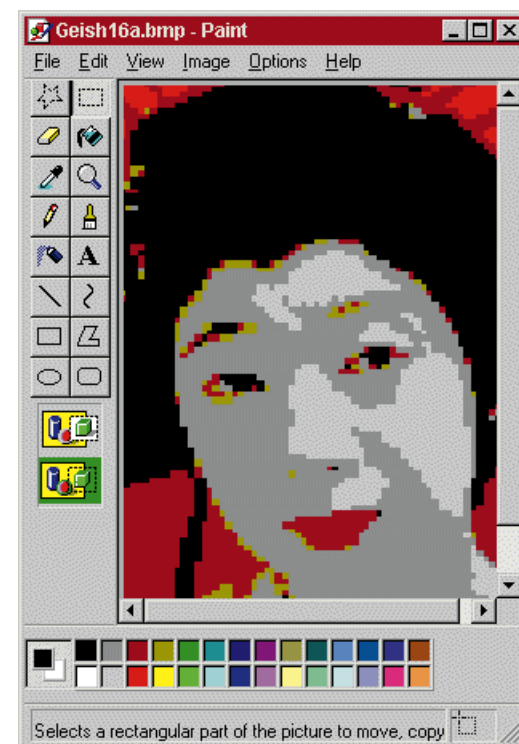
Tim'll fix it (*contd*)

UNLOCK A:

Remove the disc from the drive and restart the PC. Explorer should then show the file returned from the dead, although it will no longer possess a long file name.

Q How can I get Notepad to save files to a custom default folder? I know that I can open the folder and right-click "New" then "Text Document", but it's a rather long-winded process.

Jill Gordon

A This one is easy: create a shortcut to Notepad wherever you like, and then right-click and select Properties. Go to the Shortcut tab and type the path to your chosen folder in the Start In box.

Q How can I get Notepad to start up with wordwrap "on"?

Cameron Smith

A Sorry, you can't. It is a "feature" that has always been part of Notepad. To add insult to injury, if you open a file, turn on wordwrap and subsequently close the file without altering it, you will be informed that the file has changed and asked whether you want to save the changes — even though it hasn't altered.

Q Can anybody tell me how to draw my own icons using Paint or any other software, apart from Microangelo which I think is quite useless for this purpose?

Stephen Muirhead

A Well, I would not describe Microangelo as useless, but Windows Paint does have the tremendous advantage of being free and simple.

Start it up, set the "Image/Attributes" to 32 x 32 pels, and paint away. If you "View/Zoom/Custom/800%" and then turn on the Thumbnail display and the Grid from the same menu, you will find it much easier to work.

Save the file as a normal bitmap but give it the .ICO extension. You will then see it in folders as an icon and be able to assign it to shortcuts, via the shortcut properties, Change Icon, Browse. ∎

types? For example, just hide all the files with the 'hidden' attribute enabled so that I can still see the DLLs, and VXDs etc."

The fact that these are shown in a scrolling list (see View/Options/View from any folder) looks promising (Fig 2). So how do you edit this list? Well, after a long search through the MS knowledge base and a rampage through the Registry, I have to admit it's not possible. Of course, if some clever-clogs out there knows otherwise, then I'd love to be let in on the secret.

Department of incredibly obscure tips

In the August column we had "*how to change the Internet Explorer toolbar background image*". Now, thanks to Stuart Taylor, we have the answer to one of life's Big Questions: how do you change the spinning globe-e thingy up in the corner?

First, catch your bitmap. This must be 60 pixels wide by an integer multiple of 60 high. In fact, the existing logo is less than this but 60 x 60 x 10 worked for me, using IE3.02 and having all the Toolbar options checked. Each 60-pixel square acts as one frame of the animation, starting from the top, so I'll leave the artistic bit to you (Fig 3). Save the result as a 256-colour .BMP.

Now it's time for a dive into the Registry. Go to

`HKEY_CURRENT_USER\Software`
`\Microsoft\InternetExplorer\Toolbar`

and (if it isn't there already) create a new string value called BrandBitmap, with a value that is the path to your .BMP file. Next time you start Explorer, you should see your new custom animation whizzing away. Stuart adds that there is also a SmBrandBitmap setting, which presumably can point to a smaller version used with text-less buttons, but neither of us has tried this yet.

Over to you

Now here's a weird tip, strictly for advanced dabblers. I'm withholding this reader's name, for reasons that will become apparent. But he is adamant: the following Registry setting changes the default font of Notepad from "that awful system font (fixedsys)" to 9pt Courier:

`[HKEY_CURRENT_USER\Software\`
`Microsoft\Notepad]`
`"iPointSize"=dword:0000005a`
`"lfFaceName"="Courier New"`

It doesn't work for me, yet the chap insists that it works for him, using Windows OSR2 release. I don't have this, so if anyone wants to try it we'll be able to

Fig 2 Hiding files: It's all or nothing

Fig 3 Trivia galore: Your own animation in IE3

determine whether this is a fabulously useful tip deserving of a book token, or a shameless attempt to take the mickey.

September's "Over to you" concerned Richard Hall's challenge to pass a number to the Windows Phone Dialer. To the rescue comes Jason Ozin, who writes: "The way applications launch Dialer.exe and pass it a number to ring is via API calls using the TAPI library. So there is no command line way of passing it a number.

"However, I have just written a small freeware program called Dial-Now that will take a command line argument and pass it to Phone Dialer. Having played with it, I actually found it quite useful. It saves having to dig your way into Schedule or Outlook to find a number and ring it. You just place shortcuts to your common numbers in a folder, or on your desktop."

It's clever and simple, especially if you rename each shortcut with the name of the person you're calling. The program itself is only 10Kb, but the installation and VB run-time libraries take this up to 1.4Mb. Run SETUPDN.EXE from this month's CD.

PCW Contact

Email **Tim Nott** at win95@pcw.co.uk or write to him c/o the usual *PCW* postal address (on p12).

Painless extraction

When Powertoys from our CD-ROM failed to install, Tim Nott diagnosed a file compression problem. Some of your "problems", however, are driving him to distraction — or worse.

Dick Stuart-Grenville had a problem installing Powertoys from our June CD-ROM. *"Clicking on Powertoy.exe only results in an MS-DOS prompt window with message 'PKSFX: Can't create: APLAYEXT.DLL'. PCW's CD helpline was flummoxed, but suggested I delete DirectX if I had loaded it. Well, I did, because I had. Even restarted Windows. Same message. Don't you just love it, when this happens?"*

He must have caught the CD helpline on an off day, because the answer is quite simple and nothing whatever to do with DirectX. Most software supplied on cover disks or via the internet comes in compressed form — not just to save space, but to keep a whole bunch of files wrapped up in a single container file. There are various file formats, but the most common in the PC world is .ZIP — you need the shareware PKunzip or WinZip to extract the contents. With self-extracting files, you have an executable (.EXE) that has its extraction software built in. However, there are several flavours. The more recent varieties, created with WinZip, pop up a dialog asking where you'd like the files extracted to. The older type is actually a DOS program, and extracts the files to its own folder unless you specify another in the command prompt, e.g.

```
POWERTOY C:\WINDOWS\TEMP\
```

Note that the final backslash is mandatory: I've just discovered this the hard way. Omit it, and you end up with a load of files in the Windows folder called

TEMPAPLA.DLL, TEMPAPLA.INF instead of APLAYEXT.DLL and APLAYXT.INF. Obviously, double-clicking on the .EXE won't pass it a path, so it will try and extract the files to its own folder. But it can't, of course, write to a standard CD-ROM. And if it's on a floppy, it will probably bomb out after a few files when the disk is full. Hence the error message. So if you get this, either supply a path via a DOS box (or the Run command) or copy the .EXE to your hard disk first.

While we're on the subject of extraction, last December I mentioned that you could view the contents of .CAB files with the DOS program EXTRACT.EXE, but that the contents scrolled off the screen and the MORE pipe didn't work. Thanks to Alan Bennett, who pointed out that you can get round this by opening a DOS prompt in the Win95 folder on the CD-ROM and typing:

```
extract win95_02.cab /a /d
>c:\windows\desktop\cabstuff.txt
```

This will send the contents of all the

Really dumb tip of the month

Sometimes I come across a tip that is just mind-bogglingly stupid. Here's one that takes the prize for ingenious idiocy. You doubtless all remember the tip that makes Control Panel a cascading menu off the start menu. You don't? Well, it does come on the "Tips.txt" file that is copied to the Windows folder on a standard installation; but if you don't have, or can't be bothered to look for this, the trick is to open the Start Menu. Right-click Open on the start button or use last month's tip of having a shortcut to

```
EXPLORER.EXE
/e,/root,C:\Windows\Start Menu
```

In the top level of the Start menu, or any other folder if you wish, create a new folder and rename it

```
Control Panel.{21EC2020-3AEA-1069-A2DD-08002B30309D}
```

See the screenshot for the results — and please don't write in to ask me why my Quick Finder is showing QuickTime's icon and QuickTime is showing PaintShop Pro's. I don't know. They get it right in the "real" control panel. Anyway, you can do a similar trick with printers and dial-up networking connections, but that's old hat. What's new hat — and a very silly hat, too — is doing it with your Internet History folder. Just create a folder in the Start Mmenu called

```
Internet History.{FF393560-C2A7-11CF-BFF4
444553540000}
```
and watch your entire screen fill when you summon it.
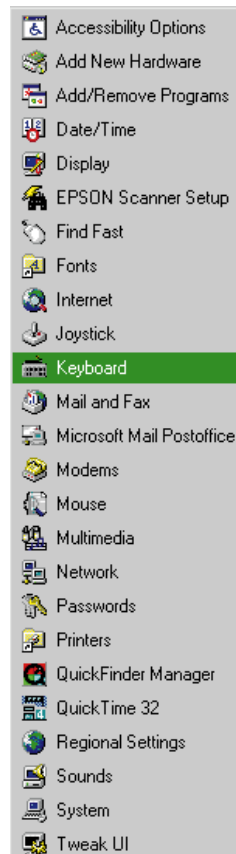
Control Panel on the Start menu

Quick ones

■ If you want to copy a filename to the clipboard, click on the file, click again to open the title for renaming, then press Control + C, Esc.

■ You can open a free-range Explorer window from any "File/Open" dialog, by right-clicking on a folder icon and choosing "Explore" rather than "Open". You can also open a file in its associated application, by right-clicking and choosing Open. Which is handy, but it will come as no surprise that this doesn't work in Microsoft Office, which resolutely tries to open everything in the current application. You can, however, use the "Send to…" command from the right-mouse menu, and another trick is to QuickView the file, then click the "Open" button.

■ To speed up Help searches, click on the "Find" tab, then the "Options" button. Select "Immediately after each keystroke" and uncheck "Wait for a pause…". Thanks to Andrew Daniels for that one.

.CAB files to a file, which you can search at your leisure.

What the font...?

Back to Dick Stuart-Grenville, who had a rather more serious problem with fonts. He uses DTP software and a font management utility, and, if I understand correctly, wanted to keep a load of fonts elsewhere than his Windows\Fonts folder. If you open the latter in Explorer, you'll notice that you have different column headings and menu commands. Thinking it would be useful to have the "List fonts by similarity" command available for his reserve fonts, he copied the entire folder from C:\Windows to D:\.

"*However, when I emptied this folder, prior to moving other fonts in, I was appalled to find I had simultaneously cleaned out the fonts folder on drive C:! Absolute panic… But thank the gods for the Recycle Bin's Restore command.*"

Surely some mistake I thought, so always a sucker for the "Do not touch this switch" syndrome, I tried the same thing myself. I only deleted a few fonts, as I may be daft, but I have it under control. But he's right you know: they disappeared from the original fonts folder as well. Stranger still, the Recycle Bin showed they had been deleted from C:, not D:. This rang a vague bell about a similar thing happening on networks, so I fired up the Microsoft Technet CD but couldn't find anything relevant. I did a little more experimenting.

For an idea of what's really on your hard disk, the old Windows File Manager (WINFILE.EXE) has a lot to recommend it, even though it won't show long file names. What it showed here was that all the font files I'd deleted from D:\Fonts had, in fact, vanished from C:\Windows\Fonts. But they were still present in D:\Fonts, even though Explorer couldn't see them. At around this time, I started getting messages popping up saying that Windows had found an error in the Registry, and would I kindly shut down and kiss my work goodbye.

Looking at the folder in File Manager (or DOS) also reveals another file, DESKTOP.INI, that isn't visible in Explorer. And it's this that gives the fonts folder its special powers; other folders such as the Recycled one on each drive and the Internet Explorer History and Temporary File folders also have a file of the same name, but different contents. In the case of the Fonts folder, DESKTOP.INI points at a Registry key that in turn points at FONTEXT.DLL which contains the special features. What you see "in" the Fonts folder has nothing to do with the files therein. Although some fonts appear with the shortcut icon if the .TTF hasn't been copied to the Fonts folder, there isn't a .LNK file as with a normal shortcut. The visible content of the folder actually corresponds to a list kept in the Registry at

```
HKEY_LOCAL_MACHINE\SOFTWARE\
Microsoft\Windows\CurrentVersion\
Fonts
```

Naturally, it's going to get rather confused with two special Fonts folders , and this, I assume, was the cause of the error messages.

Another peculiarity of the Fonts folder is that because it has the System attribute set, its contents are invisible to the Find File command: a search for *.TTF won't find anything unless you keep some fonts elsewhere. Anyway, the moral of the story is that you can't have the benefit of "View by similarity" without the rest of the special attributes. And this is going to cause the weird problems described above. So, if you want to copy fonts to another drive, move the contents of the Fonts folder into a new folder. Don't move the folder itself.

It's that man again!

Did you know you can concatenate help files? Nor did I; but thanks to the irrepressible talent of Peter McGarvey, who joins Jason Ozin in the exalted ranks of second book token winners, I do now. What I mean by this is that you can open one help file from another. Some of this is already set up in Windows: if you go to Help on the Start menu, then click through Find, Options, Files, you'll see that this apparently seamless help is actually composed of several files and can be updated when you install, for example, the Intellimouse software.

You, too, can do this at home. The secret is in editing the contents (.CNT) file of the "host". If you open the Windows\Help folder, you'll see as well as the .HLPs, a bunch of .CNTs. These contain the list you see when you open the Contents tab of a help file as well as the links to other files. For the purpose of this exercise, we'll add the Windows Resource Kit help file to the standard Windows Help. So start by copying WIN95RK.HLP and WIN95RK.CNT from the Windows 95 CD — you'll find them in the \ADMIN\RESKIT\HELPFILE folder — to your hard disk in C:\WINDOWS\HELP.

Next, load WINDOWS.CNT into Notepad or your chosen text editor, and add to the end of the file the line:

```
:include win95rk.cnt
```

followed by a (vital) return. Save the file. This will add the Windows Resource Kit help contents to that of Windows Help. The
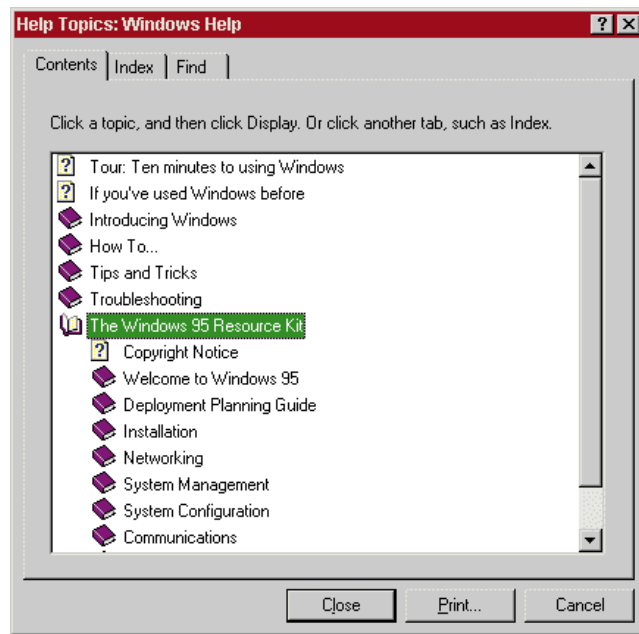
Fig 1: Editing WIN95RK.CNT

```
:base win95rk.hlp>View
:title Microsoft Windows 95 Resource Kit
:index Windows 95 Resource Kit = win95rk.hlp
1 Copyright Notice = CP_O_
2 Welcome to Windows 95
2 Introduction = RKO_WEL_1_
```

Fig 2: The new start of the file

```
:base win95rk.hlp>View
:title Microsoft Windows 95 Resource Kit
:index Windows 95 Resource Kit = win95rk.hlp
1 The Windows 95 Resource Kit
2 Copyright Notice = CP_O_
3 Welcome to Windows 95
```

Fig 3 What it should look like - the final result.

only snag is that the entire top level of the WRK appears with the rest of the Windows contents: it would look better if it expanded down from a single book. This entails some rather heavier editing of WIN95RK.CNT. You can't use Notepad to edit this as it's too big; WordPad or any word processor will do, but remember to save as plain text. The first few lines are shown in Fig 1.

What you need to do is replace every number at the start of a line with the next higher number , e.g.

```
2 Copyright Notice = CP_O_
3 Welcome to Windows 95
3 Introduction = RKO_WEL_1_
```

This kicks everything down a level. If you've got a decent editor you can do this with a few search-and-replaces. Bear in mind, though, that you want to search for <return> number, not just the number on its own, as you don't want to change any numbers that don't start a line. Secondly, start at the highest number (4) and work down: I leave the reason as an exercise for the reader. Finally, add a title on line four, with number 1 in front.

Fig 2 shows how the start of the file should now read, and the Windows Help contents should then look like Fig 3.

The Riot Act

This column wouldn't exist without your feedback, but it can sometimes be too much of a good thing. So perhaps it's about time to read the periodical riot act.

Please bear in mind that my job is to write a column, not to provide free, round-the-clock technical support. Although I do try to respond to each and every email or letter, there aren't always enough hours in the day. For the best chance of a reply, please observe the following.

■ If it's a problem, please make some effort first. If you can't be bothered to find something that's conspicuously covered in Windows Help, then I can't be bothered to tell you.

■ Don't ask me questions that would be better directed elsewhere. This is the Hands On Windows 95 column, not the Networking column, nor the DOS column, nor the Unix column. Nor can I help with specific hardware problems: if your Acme printer won't work with your Zygon computer, ask the supplier's technical support. Don't ask me to supply device drivers or other files. I don't keep stocks of such things.

■ I live in a foreign country. They do things differently there, so please don't send SAEs or stamps. Unless they are French ones. I can usually run to the price of a stamp, so don't feel guilty about this.

■ Don't send any email attachments without prior agreement. That means you, and that means any. One of the other things they do differently here is charge me a lot of money to pick up my email. If it isn't text, stick it on a floppy and snail-mail it (sorry, but I can't guarantee a return). There are some Very Strange People out there, including the person who shall remain nameless (unless they do it again) who sent me copies of their USER.DAT and SYSTEM.DAT files. Just what I was supposed to do with them I don't know, but at a total of nearly three megabytes, I was not amused.

■ Above all, do keep writing. I do enjoy getting your mail, and I don't bite. Really.

PCW Contact

Email **Tim Nott** at Win95@pcw.co.uk or write to him c/o the usual *PCW* postal address.

What does **this** switch do?

…and well may you ask. Tim Nott explains the command lines behind switches and gives instances of their use to modify program behaviour. And, how to get the ideal folder window.

Back in April, I mentioned the trick of using command line switches to prevent Explorer expanding the contents of the C:\ drive. I mentioned it again in June and several readers have emailed to ask, not unreasonably, what does all this "/n,/e, /select" guff actually mean? There's a file titled Tips.txt which should end up in your Windows folder after a standard installation, and this explains all. But not in anything you could describe as English, so let's see if I can do any better.

Some programs support "switches" when launched from a shortcut or the "Run" command. Switches modify the behaviour of a program. For instance, if you run the Media Player with the play switch, by typing Mplayer.exe /play into the Run command line, it will go straight to the file/open dialog. When you pick a file, it immediately begins playing in a slimline version of the interface and shuts down when finished.

Explorer has four switches and two path parameters which can be used in various combinations. Each is preceded by a forward slash and separated by commas.
1. The /e switch forces a two-paned view, as when you "Explore" rather than "Open" a folder, but only when a folder is specified. Explorer.exe on its own opens two panes, with the C:\ drive expanded. The command Explorer.exe /e, C:\ does exactly the same, although you can change the drive letter to expand other drives. Leave out the /e, and you'll get a single-pane view.
2. The /n switch opens a new window, even if the folder is already open — you don't need to include this if you use the /e switch as that always opens a new window anyway. Yes, I know I did so in April, and again in June… I was wrong.
3. The /root switch governs where you want

to start from: use it with the /e switch to define the top level of where you want to explore; you can't go up beyond this ceiling.

It's useful, for instance, when comparing the contents of drives or moving files between them. If you set the drive letter as the root, e.g. Explorer.exe /e, /root,C:\ then you have a view that's as near as damn it to the old File Manager sub-windows.

You can specify a folder to expand by adding a comma, then the folder name. Explorer.exe /e,/root,C:\,windows will expand the Windows branch in the left pane and show the contents of C:\windows in the right. Note that if you leave out the comma, the Windows folder will be the root; you won't see anything higher or be able to navigate to other folders in C:\.
4. Finally, there's the /select switch. This selects whatever follows it without opening

the branch, so Explorer.exe /e,/ root,C:\,/select,windows will show the contents of C:\ in both panes with the Windows folder highlighted on the right. Which, repeating myself for the third time this year, should explain why Explorer.exe /e,/select,C:\ opens a two-paned Explorer with C:\ selected, but not expanded.

Somewhere on the desk…
Having read through all that, those who haven't dozed off might be wondering what they can do with this new-found knowledge. OK, in the past we've looked at various ways of Getting At The Desktop. It's a good metaphor, because like my real-world desk, it gets cluttered. I know, for example, that there's a pen near at hand, yet somehow it's buried deep beneath piles of books, readers' letters, bills, magazines, old sandwiches and so on.

Similarly, the shortcut I want is buried under two word processors, Paintshop, my off-line mail reader, three instances of Windows Explorer, one of Internet Explorer, a French-English dictionary, Regedit, and a game of Freecell that I started in the middle of a long download and then forgot about.

There are two schools of thought here. My preferred method is to clear the Desktop: the equivalent of sweeping
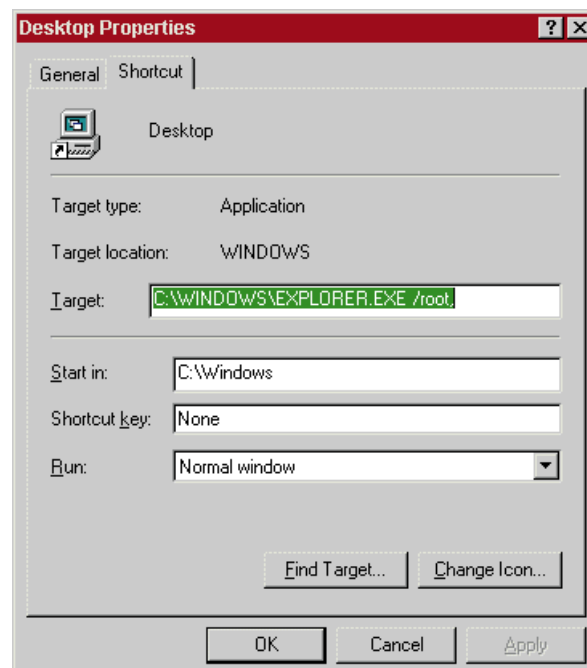
Fig 1 **Will the real desktop please stand up?**

everything off the desk and onto the floor. I've got a Windows 95 keyboard, so I can do this with the Window key + M to minimise everything. Adding shift puts it all back. If you haven't got a Windows 95 keyboard there is some incredibly tedious key sequence, which I forget. You can also do it by right-clicking on a spare bit of taskbar… if you can find a spare bit of taskbar, that is (hint: try the clock).

The other school of thought is to have a utility that lives in the system tray and pops up a list, menu-style, of the contents of the Desktop. I've tried a couple of these: one had a bug and it would only list one column.

A third approach is the DIY method, which several readers have suggested. Just create a shortcut to C:\Windows\Desktop and stick it on the start menu. Click this and up pops a folder with the contents of the Desktop. The only trouble with this is that you won't see the system icons such as My Computer, Recycle Bin and so on. And if you create shortcuts in the folder to redress this, you'll get these appearing on the actual Desktop as well, duplicating their targets and looking stupidly redundant.

However, I've now found a way to do this properly. Create a shortcut, anywhere, to point at EXPLORER.EXE /root, – the final comma is important, as is the space before the slash (Fig 1). It opens Explorer with the default root, the Desktop. But as we've used the /root switch without the /e switch, it opens in single-pane view. Call it something imaginative, like "Desktop". Right-drag this onto the Start button and choose "Move": one click on the menu item will open a folder showing all the contents of the Desktop, system stuff included.

Starter's orders
OK, here's another one. Have you ever hit the Start button and seen, either in the top menu or perhaps buried deep in the labyrinth of sub-menus, an entry you really should have got rid of, or put elsewhere?

My Start menu doesn't seem to stay tidy for long but by the time I'm in a branch or two I can never be bothered to close it all and right-click the button to get the "Explore" or "Open" options. What I'd like to see is a right-button menu at each level that lets you do the usual file stuff with folders and shortcuts.

But the Start menu is one of the few bits of Windows which doesn't respond to right-clicking. So here's a way to bring exploration a little closer. Create a shortcut
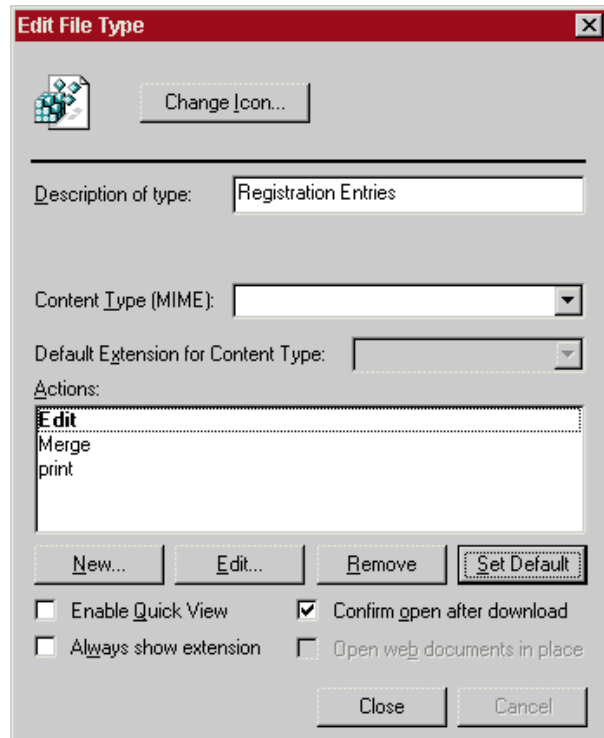

(on the Desktop will do fine) and point it at EXPLORER.EXE /e,/root,C:\Windows\Start Menu. If you don't keep Windows in C:\Windows, amend it accordingly. Rename it to "Edit menu" or whatever you like and drag it onto the Start button. You'll then have an "Edit menu" command in the top section of the Start menu to Explore the latter. The /root switch means you get a nice uncluttered left-hand pane just as if you'd right-clicked on an empty bit of Taskbar, selected "Properties", picked the "Start Menu Programs" tab and clicked the "Advanced" button.

Crapola revisited
Apologies to the many readers who wrote in asking for details of how, exactly, you add a logo to the System Properties box (July's column). It seems, in a spate of over-zealous self-editing, I omitted to state that the bitmap should be saved in the Windows\System folder as OEMLOGO .BMP.

Thank you, Mat Philips, who wrote: "*Normally there is little in PCW of which to disapprove but I do protest at the contents of your July column where you encourage users to remove the existing OEM information from their computers. OEMs spend much time and effort creating the pre-installation files needed to install Windows on their computers as quickly as possible, but once done the only thing distinguishing one installation of Windows from another is the details in the control*

Fig 2 How to stop double-click accidents with .REG files

panel. I am certain the PC manufacturers (not to mention Microsoft) would be unhappy to learn that their customers had removed their logo." He gives me a further rollicking concerning my derogatory comments about Escom and asks me to "*please vet your articles for suitability in future*". It's comforting to know such brand loyalty exists. I bet he's still got the sticky label across one corner of the screen, too.

Folder settings
How do I get Windows to remember my folder settings? This is a question that has baffled philosophers for years. There is the Platonic Ideal of a folder window which has everything the way you want it: the toolbar, the icon, list or details display, the status bar and so on. But real Windows folders never seem to stay like that and the situation is further confounded by the fact that you do not necessarily want all folders the same.

I like to see most folders in details view, with the toolbar and status bar on, but in My Computer and Control Panel I prefer large icons. I thought I almost had it once, but gave up – most of us give up. However, I think Richard Lewin has cracked it: assuming you have multiple folder windows enabled, open My Computer and get everything the way you want the default to be. Hold down Control and double-click on the C:\ drive. This should appear in the same window with the same settings. Close it with the X-button. Re-open My Computer (it should still have the "ideal" settings) and repeat the process for the other drives. Finally, open My Computer, set it to large icons, turn off the toolbar and close it.

Having tried this on a freshly installed Windows, it seems to have worked. The only thing that won't stick is the size of the folder window: the height seems to be related to the amount of contents and the width related to the height, which latter is pretty dumb in details view but that's Windows for you. Have a record token, Richard.

Quick fixes
■ Ray Daniels wrote to say that in Windows 3.1 File Manager "*there was a feature I liked under 'View' called 'By File Type'. I know this caused a lot of problems to inexperienced users who left it set to something rare and then couldn't see anything any more, but I found it quite useful. Is there some deeply buried switch in Windows 95 that puts it back on or is it lost forever?*"

Well, you can still dig out File Manager (hint: run WINFILE.EXE) and use it in the traditional way. Change the file type from the default *.* to, say, *.TXT and you'll see only text files. Any valid character and wildcard combination works. You don't get the option in Explorer, but what you can do is use the Find tool. Right-click on a folder and select "Find". When the Find window appears, enter

Fig 3 Multiple find patterns – not a lot of people know that

the file type you want to see in the "Named" box (e.g. *.TXT). Alternatively, you can choose a file type from the "Advanced" tab, but this way is quicker and has the additional little-known bonus that you can use more than one search pattern. Just leave a space between each. Untick the "Include Sub-folders" option if you just want to see files in the current folder (Fig 3).

■ Paul Morgan wants to know how to change the spacing of icons: "*In Windows 3.1 this was in Control Panel, Desktop, but in Win95 there doesn't seem to be a way of doing this.*" Oh yes there is: Control Panel, Display, Appearance tab, open the "Item" list and there are options for both horizontal and vertical spacing.

■ John Richardson writes: "*After you've delved deeply (four or five sub-folders deep) and found what you were looking for, can you close all the open windows with a simple keyboard combination command?*" Yes, Alt + Shift + F4 (or Shift + click the X-button) closes the current folder and all its ancestors.

■ Finally, Peter McGarvey fans (see April and August columns) will be delighted to know that he relented on his decision not to upgrade his cookie program for Windows 95. Version 2.0a is now freely available to all under the terms of the GNU public licence and you will find it on this month's *PCW* CD-ROM. You can run COOKIE.EXE from the CD to install the program on your PC. The source code is also included on Cookie_2p0a.src.zip. Peter adds: "*Yes, I've updated it. However, I made damn sure that all the added features were essentially 100 percent useless. If you want documentation, then by all means feel free to write it yourself.*"
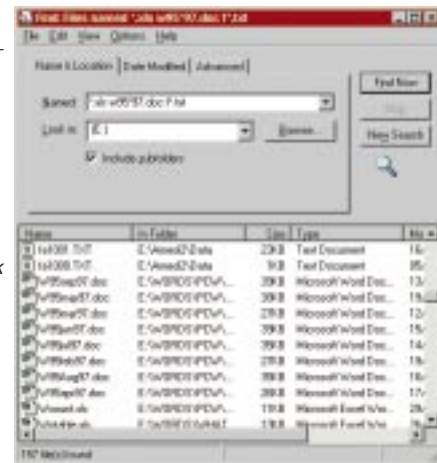
The urge to merge
If you are a compulsive Registry meddler, then you probably know you can export bits of it as text files with the .REG extension. Also, you can merge .REG files into the Registry with a right-click "Merge". As this is the default action, a left double-click will also achieve this, which is fine and dandy until the time you do it by accident.

I conscientiously exported the Registry branch containing the original Microsoft "Tips of the Day" before replacing these with less suitable but much funnier ones. Some months later I found the backup .REG file and absent-mindedly double-clicked it. My collection of wit and wisdom, which I had spent considerable time and effort stealing, promptly disappeared without so much as an "Are you sure?"

Not too much of a disaster, but merging an unknown set of Registry settings could be an excellent way of really screwing up a PC. I mean, I've had people send me .REG files as email attachments (by the way, *please don't*).

So, if you want to protect yourself from this, leap to the "View/ Options/ File Types" box from the nearest folder window, scroll down to the "Registration Entries" file type and hit the "Edit" button. Three actions are listed: "Edit", "Merge" and "Print" (Fig 2). The default action, Merge, appears in bold type. Selecting Edit, then hitting the button labelled Default will change this, and in future a double-click will load the branch into Notepad for viewing and editing.

Here's a challenge for you
Richard Hall wants to know whether it is possible to invoke the Windows phone dialler and pass it the number you want to dial. I've drawn a blank on this, so over to you. Please let me know if you come up with a solution.

PCW Contact
Email **Tim Nott** at **Win95@pcw.co.uk** or write to him c/o the usual *PCW* postal address.

Dangerous liaisons

Beware of those following you on the internet and don't get too friendly with strange emails, says Tim Nott. Plus, how to speed up Paint and replace the squiggle on the Explorer toolbar.

Last month I warned that clearing the contents of your Internet Explorer History and Temporary Internet Files folders doesn't cover your tracks. If you examine the folders with good old File Manager (Start/ Run Winfile.exe) you'll still find a load of .DAT files remaining. Load these into a text editor and you'll find they contain details of sites you've visited and searches you've made.

Microsoft has now come clean on this. In an article entitled "Ten Ways to Configure Internet Explorer for the Enterprise User" in the May edition of *Microsoft Technet*, Bryan Pfaffenberger says: "It isn't much fun to think about, but somebody snooping around on your system could learn a great deal about what you've been up to. Suppose, for example, you've gone off to lunch, left your door open and your PC running. Anyone who walks in could learn a lot about where you've been online, just by looking in the folder where Internet Explorer caches the pages you've downloaded.

"Users can delete these files, but that's not a bullet-proof solution. Unbeknown to most Internet Explorer users, the program keeps an exact byte-by-byte record of where they've been online. This record is stored in .DAT files located in the Temporary Internet Files folder. Amazingly, these files also include an exact byte transcription of everything you've uploaded and everything you've downloaded, right back to the time you installed the program.

"Here's the rub. Unlike files stored in Internet Explorer's cache, you can't delete these .DAT files. Try it — you'll be denied access. By copying these files and inspecting them with a binary decoder, a knowledgeable intruder could reconstruct your user's every move going back months, even years. If you're worried about snooping, the best defence is to install a bullet-proof, password-based authentication program on your computers." This shows commendable candour on Microsoft's part but perhaps a poor grasp of reality.

The following are my own observations. Firstly, you can't see these files in Explorer, even with the Show All Files option enabled. Secondly, you don't need a binary decoder — you can see the URLs and search criteria in WordPad, for example. And thirdly, the sentence "Amazingly enough… back to the time you installed the program" would appear to be utter nonsense unless Microsoft has discovered a new, infinitely recursive compression algorithm.

Fourthly, you can delete these files. And here's how. First start Internet Explorer, clear the History folder (View/ Options/ Navigation/ Clear History) and the Temporary Internet Files (View/ Options/ Advanced/ Settings /Empty Folder). Close Internet Explorer and run File Manager. Expand the Windows folder, making sure that under View/By file type… you have Name set to *.* and everything else ticked. You'll see two .DAT files in each of the following six folders: Cookies, History, and Tempor~1\Cache1 to Cache4. And, true enough, you won't be able to delete them at this stage or load them into WordPad. You should, however, be able to drag copies onto the desktop and load them from there, if you're curious.

Restart Windows, restart File Manager and you'll find you will be able to delete all the .DAT files and all the information hidden in them. Since you're doing this from File Manager, they will bypass the Recycle Bin. If you're really, really, paranoid, note that it is still possible for someone to recover this
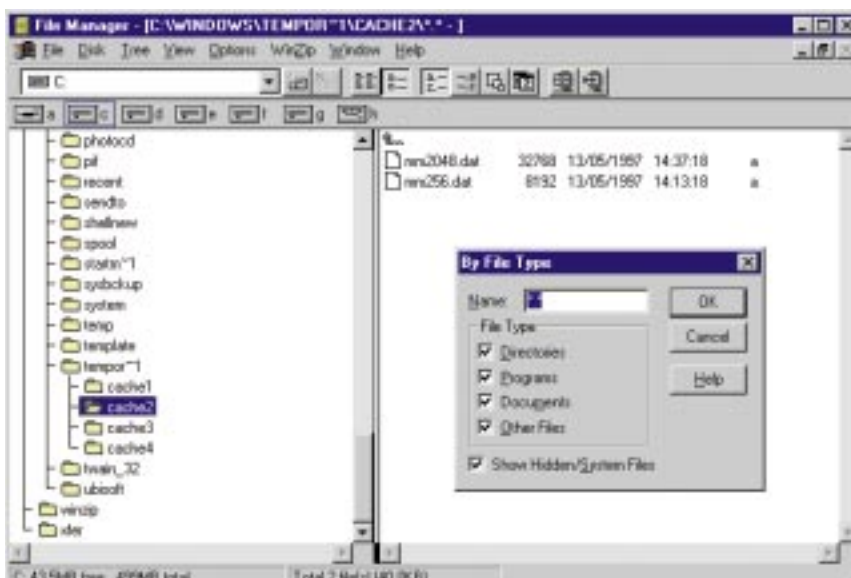
It may be old, but it tells the truth…

data from your hard disk using the DOS undelete utility or a disk sector editor until it is overwritten by new data.

Health warning
If you use email, you've doubtless received one of those "public service" messages that go something like: "If you receive an email named 'Penpal Greetings' DELETE IT WITHOUT READING IT. It contains a dangerous Trojan Horse virus which will infect the boot sector of your hard drive and will destroy all data. It is a self-replicating virus which, once read, automatically forwards itself to all of the addresses in your mailbox! DON'T READ IT!"

Variations on the warning mention "Good Times" and "Make Money Fast" in the message title, and they are all untrue. You can no more catch a virus from an email text message than you can get pregnant — especially if you are male! So, if you receive (as I did) the following email, you can safely ignore it: "The CIA issued the following warning this morning. There is a computer virus that is being sent across the internet. If you receive an email message with the subject line 'Free Money', DO NOT read the message. DELETE it immediately, UNPLUG your computer, then BURN IT to ASHES in a government-approved toxic waste disposal INCINERATOR.

"Once a computer is infected, it will be TOO LATE. Your computer will begin to emit a vile ODOR. Then it will secrete a foul, milky DISCHARGE. Verily, it shall SCREECH with the tortured, monitor-shattering SCREAM of 1,000 hell-scorched souls, drawing unwanted attention to your cubicle from co-workers and supervisors alike. After violently ripping itself from the wall, your computer will punch through your office window as it STREAKS into the night, HOWLING like a BANSHEE. Once free, it will spend the rest of its days TORTURING household PETS and MOCKING the POPE. Some filthy, disgusting miscreant…some no-good, low-down, good-for-nothing DIRTY SNAKE, in twisted pursuit of their own sadistic dreams, is sending this virus across the net via an email entitled 'Free Money'. What is so terrifying about this virus is that you do not even have to open the email for it to activate. In fact, you do not even need to RECEIVE the email. You do not even need to OWN a COMPUTER. 'Free Money' can infect even minor HOUSEHOLD APPLIANCES. How it does this with straight ASCII code is, frankly, a

matter of some debate…but BELIEVE YOU US, if this weren't a SERIOUS situation, we wouldn't be discussing it in ALL CAPS."

Beware of geeks bearing gifs
All right, quieten down now. There is a serious side to this, too. Although reading a plain text message can't harm your computer, running (or in some cases, loading) an attached file can. At the simplest level, a DOS batch file (*.BAT) can contain a variety of simple but effective methods of trashing your hard disk.

Data files, like Microsoft Word and Lotus WordPro documents, can contain macros that wreak similar havoc. You'd be mad to run an EXE file of doubtful provenance and I'm sure there are others. If you use something like WinZip, you can see the contents of a ZIP file before unzipping it (although the contents may be harmful) and as far as I know graphics files are harmless.

Think carefully before opening any kind of attachment. Some kind, anonymous donor sends you a free screensaver? Don't touch it with a barge pole. Why? Well, try this: copy (say) Freecell.exe to the desktop, rename it Penguin.scr. Double-click on it. It still runs Freecell, right? So any executable could be masquerading as a screensaver (SCR) file, including those that really make your PC SCREECH with the tortured, monitor-shattering SCREAM of hell-scorched souls etc. For this and other reasons, can I ask readers to please not send me encoded mail attachments of any kind, without prior arrangement.

Watching Paint dry
Nigel Wilson had a problem with the Windows Paint accessory. "*For some reason, the program takes an entire minute and 45 seconds to load up, and a mind-numbing two minutes and 15 seconds to exit. I've defragged my hard drive, and approached Paint from three directions — the Desktop, the Start Menu and through the 'My Computer' route — all to no effect.*"

He didn't mention, but I suspect also found, that Paint runs like a tortoise on tranquillisers in between starting and shutdown. Almost certainly the problem is one of default image size. Paint manages memory like, well, I forget what, but it is very bad at it. Start Paint, go to the Image/Attributes dialog and change the height and width to something fairly low (I use 150 x 150 pixels). Close Paint and you will find this setting is saved as the

How to slow your PC right down… Knock a zero off to speed it up again

default new image size.

Paint will load and exit more speedily.

Temp trouble
It takes all sorts, including a reader who shall remain nameless. His problem was: "*My Temp folder keeps filling up with files. Most of them seem to start with a tilde (~) and have the extension .TMP. It won't let me delete the most recent ones, and if I leave it for a few days I end up with hundreds of the things.*"

Yes, well. I'm sure we've all asked even dafter questions. I certainly have. So here's a straight answer. This is what your Temp folder is for. Many applications create temporary files — for printing, autosaving, undoing and so on. Usually these files will be deleted when the application is closed and, understandably, Windows won't let you delete them while they are in use. If the application, or Windows, crashes, then it can leave them behind. The same thing can happen if you switch off the computer without first shutting down as, I suspect, my correspondent had been doing. In any case, it doesn't hurt to have an occasional look in the Temp folder and delete anything whose date and time is prior to the last booting of the PC.

Department of incredibly obscure tips
■ You know that rather pointless squiggle on the toolbar of Internet Explorer? Well, the former editor of a well-known technology magazine wanted to know how to replace it with a bitmap of his own choosing. The tricky bit was finding out how and where in the registry the information was stored. The key HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Toolbar looked promising but made no mention of the background bitmap. I then had the bright idea of turning off the background bitmap from Internet Explorer's View/Options. And there it was in the registry; a new string value, BackBitmap = "". Stick a path and file name of a .BMP between the quotes, and there you are. The bitmap will be tiled or

cropped to fit the space available.

■ Did you know that you can drag files into DOS windows? If you have EDIT.COM installed in your Windows\Command folder, try opening a DOS session, typing Edit (with the space) and dragging a text file from any folder, or the desktop. You'll see the file name and path appear on the command line: press enter and the file itself will appear in the DOS text editor. It saves a lot of typing when using things like the FC command to compare the contents of two files. Something I do a lot when footling about trying to track registry changes with "before" and "after" exported versions.

It also works with folders: try DIR and drag. You can perform similar tricks with the Run command on the start menu dragging files and folders into the Open box. If you want to use resident DOS commands, such as DIR, you need to type COMMAND /K before the command itself.

Gilding the lily
It's gratifying to come up with a tip and have readers improve on it. At least it means they are reading my column! Daren Chandisingh read the hint about selectively deleting file types from the Documents menu [*PCW July*] and made the following observation that you don't need to enclose the file names in double quotes.

DEL C:\WINDOWS \RECENT*.GIF.LNK will delete all the shortcuts to GIF files in the Start Menu Documents folder. He points out that although you can't run this command from Autoexec.bat, you can create a file called Winstart.bat and put it there: it will be run automatically when Windows starts. You are right on both counts, Daren. Thanks.

Peter McGarvey, who starred in April's column, has a different way of muting the PC sound when the phone rings. He writes: "*I have three computers, three keyboards,

three mice, two monitors, two printers, a set of speakers, many CDs and sod-all space. I have a piece of wood which I place on the arms of my chair. On top of this goes the keyboard of the computer I'm currently using, and the mouse. To get out of my chair I stand, turn 180 degrees and place the board back on the arms of the chair. I turn around again and step over the mountains of kipple that have accumulated since I sat down, avoid the odd cat and wander off.

"*My computer's speakers are the best in the house so I use them to listen to music while I lounge on the bed to read the latest issue of PCW. If the phone rings I have to stop my computer from making so much noise. Getting to the volume control is a bit of a problem when I'm heading for the phone so I used to try to hit mute with my mouse. This is actually a very difficult thing to do when your monitor is situated about a foot behind you, under your right armpit — try using your mouse after turning it 180 degrees and you'll see what I mean.*

"*When I thought about it, it wasn't the computer's sound that was the problem, it was the CD. So I worked out how to pause the CD from a hotkey. A shortcut with the target C:\WINDOWS\FLEXICD.EXE /resume and the shortcut key CTRL + ALT + P (which also corresponds to Alt Gr + P). I can hit it with my right hand as I move it towards the phone. When I've finished on the phone I hit it again and my music continues.*"

You need FlexiCD from the MS Power Toys to do this. As far as I'm aware there is no equivalent method using the standard Windows CD player. If you don't want to download or install the whole Power Toys caboodle, I've included FlexiCD on this month's PCW CD-ROM. It's a neat little improvement on the Audio CD player that sits in the system tray, and it's freeware.

PCW Contact

Email **Tim Nott** at Win95@pcw.co.uk or write to him c/o the usual *PCW* postal address.

FAT chance

Well actually, yes, there is a very big chance of clawing back some disk space using FAT16 and 32, or the Drivespace utility. Tim Nott shows you how it's done. And, Crapola, anyone?

L ast month we solved the mystery of the apparent disparity between disk size, total file size and free space. To recap, it's all down to cluster size: the minimum chunk of hard-disk space that can be allocated to a file.

The original release of Windows 95, like Windows 3 and DOS, uses a 16-bit File Allocation Table (FAT16, for short). The FAT is a list of every file, or part of a file, that exists on the disk, together with its physical location on the disk.

Although Explorer shows files and folders laid out in a logical structure, the underlying arrangement of physical data isn't. Files are created wherever there is room, and a single file may be split over several locations. The FAT acts as an address book: the Aardvarks might be listed next to the Aaronsons in the book, but it's unlikely they will be neighbours. The 16 bits refers to the space available to record each location, and this is where the limitation arises.

16 bits equals two bytes, which can only address 65,536 (256 x 256) locations. *Ergo*, on a disk of 256Mb or less, each location, or cluster, has to be 256 x 1,024 x 1,024 / 65,536, or 4Kb in size. Each time

you double the disk size, you double the cluster size, so a disk containing between 1Gb and 2Gb (1,024 - 2,048Mb) uses 32Kb clusters.

All this dates back to the time when a 20Mb hard disk was regarded as unthinkably vast. No-one was ever going to need more than 640Kb of memory, and the year 2000 was never going to arrive.

It's further complicated by absolute limits. FAT16 can't deal with more than 2Gb or, on older hardware, 512Mb. But to get back to the question we left hanging last month: what can be done to claw back some of the wasted disk space?

Use DIR /V from DOS to compare file size and disk space allocated

A fatter FAT
The Windows 95 OEM Service Release 2 (OSR2) which came out late last year, uses FAT32 which is, as you may already have guessed, a 32-bit File Allocation Table. In theory, and if I've got my arithmetic right, this is capable of addressing 4,294,967,296 (256 x 256 x 256 x 256) locations, which would give a cluster size of 512 bytes on a 2Gb disk. The minimum physical cluster possible on a hard disk is also 512 bytes. In practice, this would mean a FAT bigger than the data itself, so the minimum cluster size is set at 4Kb on disks up to 8Gb in size.

Although this is far more efficient in terms of storing small files such as shortcuts, there are drawbacks. First, there's the effect on performance. As we saw earlier, a file larger than one cluster can be physically split between different disk locations. This increases the time taken to read or write the file to disk, as the heads scoot about the surface looking for the next bit. The larger the file, the greater the hit on performance, and with very large files (hundreds of megabytes) even Microsoft concurs that FAT16 is faster.

The other drawback is that FAT32 isn't compatible with DOS 6.22, Windows 3.x and Windows NT. So you can't dual-boot, for example, between Windows 95 running FAT32 and Windows 3.x. For this reason, OSR2 isn't available as an upgrade: you have to buy a new PC, hence the OEM

Bugwatch

If, like me, you subscribe to CIX and use the Ameol2 offline reader, beware. If you've configured this to be your default mail application, click on a "Mail to…" link on a web page or in any application that supports mail links, then Ameol2 will be launched with a new message window open and the address filled in. All fine and dandy, unless you already have Ameol2 running, in which case a second instance is launched. With two (or more) Ameols working on the same database of messages, things will become rapidly confused. David Nicol found that "*…at about this point, I got a message from Ameol to the effect that it was having trouble opening a folder and offering to delete it: I let Ameol go ahead and delete the folder and… oh dear, all my emails vanished.*" Luckily, David had a backup. I had a similar experience but fortunately noticed that there were two Ameol2 buttons on the taskbar, so declined the kind offer to delete any folders before closing the second instance.
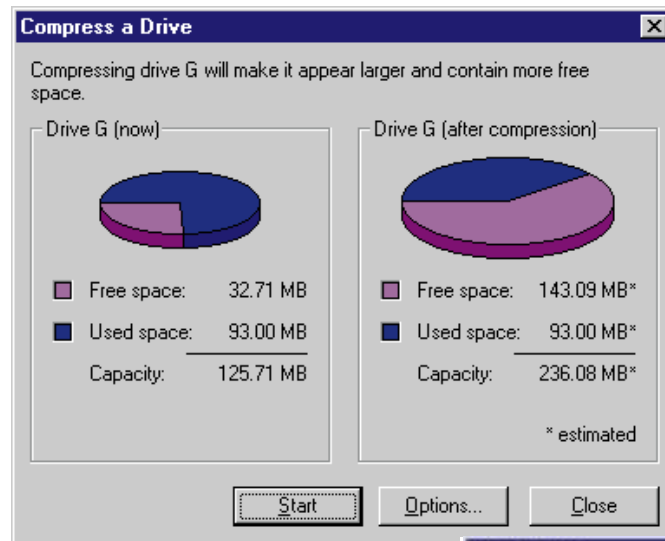
Left Drivespace — disk space for free?

Below Customise your 'System/General' information

Bottom The indispensable TweakUI to the rescue again

(Original Equipment Manufacturer) tag.

The next way to save cluster space is by partitioning. I've been using the word "drive" rather loosely, but there's a difference between a physical drive and a logical drive. For example, I've got two hard disks in my PC: I can open the box, then see and touch them if I've really got nothing better to do. However, Explorer shows I've got drives C, D, E, F and G, in addition to the floppy A and the CD-ROM H. Of these, C, E, F and G are all partitions of the same 1.7Gb disk. DOS and Windows treat these as separate drives; hence, as each is under 512Mb, I get away with 8Kb clusters.

The standard way of achieving this is by using the DOS utility, FDISK, to create primary and secondary partitions. It is quite simple to use (you follow a series of prompts) but the problem is that it destroys all data on the hard disk. So unless you're starting from scratch with a new hard disk, it means backing up all your data and applications.

In practice you'll probably have to reinstall all the applications from scratch, as they will no longer fit onto (logical) drive C, and all shortcuts, registry entries and so on will no longer be correct. This is a dreary prospect, and if you reckon it's worth £50 or so not to have do this, there's an application called Partition Magic which will create or resize partitions, including those for OS/2 and Windows NTFS, without

destroying data. I haven't actually tried it but I have heard good reports. (See "PCW Contacts", p**???**.)

Spaced out
Yet another way is to use the Drivespace utility that comes with Windows 95. This has the tremendous advantage of being free, and easy to set up. Go to "Accessories/ System Tools" from the start menu, and you should find it. If not, launch C:\WINDOWS\DRVSPACE from the Start Button "Run" command. You'll see a list of all your floppy and hard drives (or partitions).

It works rather like ZIP, in that it creates a single file on the partition that serves as a container for all files and folders. By compressing and decompressing the files as they are read from, and written to, the disk, it claims to save around 50 percent of disk real-estate. The program warns you that it could take several hours to compress the drive and you should back up data first.

Having created a compressed partition, it's completely transparent; it just appears as another drive. You can hide the "host" drive if you want to and adjust the compression level. Astute readers will notice that even without any compression, there's still a substantial saving, as the One Big File is never going to leave more than one unfilled cluster.

The real worry is security: if the One Big File gets corrupted, you're in One Big Heap of trouble. In mitigation, however, I would say that although I'm in the rare state of having enough hard disk space at present, I've used various brands of disk compression over seven years, and only once had a major disaster, which was probably my fault. In further mitigation, I'd say that you don't have to compress everything. You can keep irreplaceable data on an uncompressed partition.

Whose computer is this anyhow?
In the May edition of this column, we discussed how to change the user name and company of your PC, either by editing the registry or by using the "real man" method of a disk sector editor. That takes care of the "Help/About" box, but there's more, as Rick Mason kindly pointed out.

If you've bought a PC with Windows 95 pre-installed, you might well have more information in Control Panel System Properties. Typically, there will be a logo, the make and model of the PC and a helpful-looking button titled "Support Information". If you don't have this, but would like to or, like Rick, you bought your PC from the late, unlamented Escom and would rather forget about this, here's what to do. First, forget the Registry, as this is all in an old-fashioned .INI file. Then, find, or create with Notepad, a file in Windows\System, called OEMINFO.INI. Use your imagination and good taste to edit it accordingly — anything to the right of the equals sign is up to you:

```
[general]
Manufacturer=Crapola Corporation
Model=The Cheapest
[Support Information]
Line1=At that price you have to
be joking
Line2=Figure it out for yourself
Line3=You can have up to ten lines
of this
```

And now for the classy logo. Create a .BMP file in Paint or the bitmappy application of your choice. According to
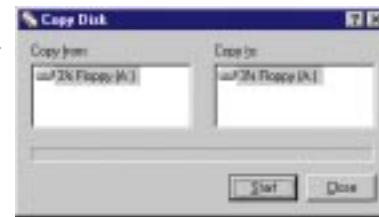
Cool tips

Copying an entire floppy disk

■ If you want to open Internet Explorer without connecting to the internet — to browse HTML files on your hard disk, or change the settings, say — and don't want the bother of cancelling the "Connect to…" dialog, create a shortcut to any HTML file on your PC. The BLANK.HTM file in the Windows folder does just fine.
■ You can create a shortcut not just to a document, but to any point in it. Highlight, for instance, a word or phrase in a WP document, then right-drag it out of the application window and on to a folder or the Desktop. Release and choose "Create document shortcut here". After you've saved and closed the document, double-clicking on the shortcut will re-open it at the chosen phrase — a great way of saving your place in a long document.
■ Floppy copy? Right click on the floppy drive in My Computer or Explorer, and lo, a "Copy Disk" option presents itself. Follow the prompt to change disks, but beware — you don't get warned that this will destroy all the data on the destination disk.

If you want to copy one or more files between floppies, without erasing the contents of the destination disk, then you might think the smart way is to right-click, "Copy", change disks, hit F5 to refresh the folder window, then right-click "Paste". But, no, it doesn't work with removable media, as the "Copy" command only stores the path and file name, not the contents. So when you change disks, it can't find the file. Instead, right-drag "Copy" to the Desktop (or any handy folder), change disks, then right-drag "Move" from the Desktop (the files should still be highlighted) to the destination disk.

Rick: "*The maximum size is 180 (w) x 114 (h) pixels. BMPs do not have built-in transparency, like GIFs, but in this case transparency seems to be set by the colour of the second pixel from the left on the bottom row of the image.*" If you don't want to make your own, Rick continues: "*Take a look at* www.geocities.com/TelevisionCity/3981/crap_pcs.htm *to see the logo I use: it's a fictional company from BBC2's Red Dwarf, as should be obvious from the rest of the site.*"

Thank you, Rick. I am now the proud possessor of a Crapola and only have to right-click "My Computer" and choose "Properties" to be reminded of this.

Tiresome tildas…
In May's column we also considered a way of changing the default DOS short filename, so it truncated non-ambiguous filenames rather than using the ~n ending.

Alex Nicholls warns: "*I did this a long time ago and also (manually) changed the short name of the 'Program Files' folder from 'PROGRA~1' to 'PROGRAMF'. It turns out that a lot of installation programs from Microsoft (notably Internet Explorer) insist not only on installing into Program Files, but work with the short form, in the PROGRA~1 version. So does the link from NotePad to call WordPad to edit a large file (although this can be adjusted in the registry). So the change can cause trouble and I find myself wishing I hadn't done it.*"

Iconoclasm
Alex Slack's icons have gone all funny… no, don't laugh, commiserate. "*I was fiddling with virtual desktops when I found all my icons had been turned duller,*" writes Alex. "*For example, white had turned to light grey and dark grey had turned to dark red, but it didn't affect any other Windows graphics. So far I've tried changing resolutions and colour depths, reinstalling the drivers which came with the card and the Windows default drivers, fiddling with colour spines and gamma correction, but the problem remains. Even stranger is that icons that were put in after the problem, are fine.*"

There is a simple cure for this. You certainly shouldn't have to reinstall any drivers or fiddle with colour spines (whatever they may be). If you've got TweakUI installed in Control Panel, then there's a "Repair" tab with a button to mend it. If you haven't got TweakUI (and you really should — it's part of the Powertoys collection and features regularly on our cover-mounted CD), open the Windows folder and delete the file named Shelliconcache. This file keeps all the icons used in one place to speed performance, and Windows will rebuild it in the fullness of time.

PCW Contacts

Email **Tim Nott** at Win95@pcw.co.uk
Partition Magic from POW! Distribution
01202 716726

A luvverly bunch

…of bananas, pretzels, clusters, unfeasibly large fonts, loud music and phones. Tim Nott has something useful to say about the lot of 'em, fixing and tipping all over the place.

Philip Dodd has asked, *"Can you suggest a way of instantly muting the audio, via the keyboard? The problem with clicking the loudspeaker symbol on the taskbar to get the volume control displayed, and then clicking the mute box, is that it takes a few seconds to accomplish, by which time the phone could have stopped ringing."*

You must have some rather impatient callers, Philip, but this problem has never occurred to me before as I have my sound card plugged into a tuner/amplifier because sometimes I like to listen to the radio. The phones sit on top of this so I've perfected the technique of turning down the volume knob and picking up the phone in one fluid movement! But this is a challenge, so I've squandered some time researching the undocumented command line switches for the volume control.

The first thing is to know what you are looking for. In this case, the filename of the volume control: it's SNDVOL32.EXE and lives in the WINDOWS folder (Fig 1). There isn't, as far as I can tell, any direct way of getting this to mute the sound on launch, but running this with the /s switch produces a compact form of the multi-slider window. The /t switch produces the same minimal single-slider and mute box as a single click on the speaker icon in the system tray.

So, create a shortcut on the desktop, with the target

```
C:\WINDOWS\SNDVOL32.EXE /t
```

and a suitable shortcut key — I've used Control + F12. To mute the sound, hit the shortcut key followed by M (another M will toggle it back on again). Although the
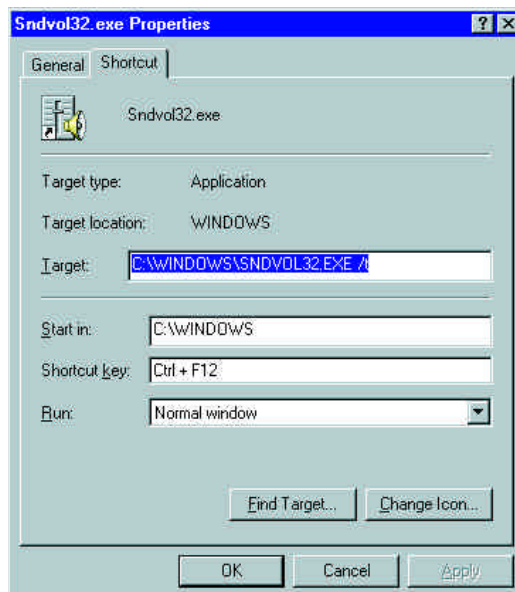

Fig 1 Shortcut for the tiny volume control

minimal volume control doesn't have a close button, clicking anywhere off it, or pressing Alt + F4, closes it.

The great Explorer

Further to the tip on getting Explorer to start without any drives expanded by using

```
C:\WINDOWS\EXPLORER.EXE /n,/e,/
select,C:\
```

as the shortcut command *(PCW April)*, Ray Daniels and Mike Davis complained that they can't find a way to make this work when opening Explorer by right-clicking on the Start button, so is there a way around this? Sorry guys, no. The whole idea of the "Explore" and "Open" menu options on the Start button is to jump straight to the "Start Menu" folder so that you can organise the shortcuts therein and the folders below. It isn't intended to be a general-purpose launcher for Explorer. But as you've got it

open, you can create a shortcut to Explorer, as shown earlier, in the top Start Menu level. And that's still only two clicks away.

One-stop restart

In January we did the tip on how to close down Windows without the "Shut Down Windows" confirmation dialog. For those of you who missed it, the trick is to create a shortcut to

```
C:\WINDOWS\RUNDLL32.EXE user.
exe,ExitWindows
```

This bypasses the confirmation, but will still prompt you to save any open files.

Since then, several of you have asked whether it's possible to restart in a similar manner. Well, it's not *really* similar, but Ralph (*no surname*) offers this tip. Create a batch file with the single line:

```
@EXIT
```

Save it as, say, RESTART.BAT, anywhere you like. Create a shortcut to it on the Desktop or anywhere else that's easily accessible. Right-click the shortcut, choose "Properties" and go to the "Program" tab. Tick the "Close on Exit" option, click on the "Advanced" button and tick the "MS-DOS mode" box. Untick the "Warn before" box. And that's it.

It took me a little while to figure it out, but what it does is the same as the "Restart in MS-DOS mode" option from the "Shut Down" menu; as normal, you still get prompted to save any open files. As soon as it has done this, it runs the DOS "EXIT" command which in turn restarts Windows. Very ingenious, but I would warn you that when I tried this, with Exchange running, my PC ground to a halt and I could only restart by turning it off. So, you might say, nothing

new there. When I tried it again, it was OK. So, I'd advise treating this with caution: make sure you have nothing unsaved until you've tried this out a few times, especially with any messaging services open.

Icons, folders and unfeasibly large fonts
"How," asks Michael Lucas, *"can I change the icons of folders on my desktop? With Windows 3.1 I had a thing called Icon Do-It, which let me change the Program Manager group icons. I'd like to do a similar trick to make my desktop folders more distinctive."*

Well, you can change the default icon with an icon-management tool like Microangelo (or by rummaging in the registry) but it's still "one size fits all"; you won't get distinctive icons for each folder. The only way to achieve this is to move all the folders elsewhere, then create shortcuts to each one on the desktop. Then you'll be able to change the icons individually from the properties sheets of each shortcut.

If you don't see what you want in SHELL32.DLL, the default choice, use the browse button to get to either a standalone .ICO file or another collection. There are some good ones in PIFMGR.DLL.

Andrew Romer was messing about, as one does, with display settings. Running at 1,600 x 1,200 "…*made the desktop items rather small, so I was trying to see what happens when you change the font size. Recklessly, I increased it five-fold and the window became so huge that I could not access the portion of Screen Properties which changes the font size back. I had to restore Windows from a backup. Is there a way of moving the window up and down using the keyboard?"*

Yes, there is, and it's the same as in Windows 3.1. Pressing Alt + Spacebar produces the window menu, the same as clicking on the icon at the left of the title bar.

Although the Display Properties sheet doesn't have such an icon, the keystrokes still work. Next, press M for "Move" then use the arrow keys to move the window. Hit "Enter" when it's in the desired position.

Pretzel logic
How do you thread a banana through a pretzel? How do you get a rabbit into a hat? You're allowed to use whatever clipart you can find and Windows Paint (Fig 2).

First, catch your rabbit and the rest of the clipart in bitmap format. I cheated here by raiding the clipart gallery in Corel Xara, resizing the four images to suit and taking screenshots of them, which I pasted into a blank 800 x 600 Paint file.

Make sure the background colour is set to white, by right-clicking on the white swatch in the colour palette, and pick the rectangular selection tool. You'll see two rather meaningless-looking icons appear in the tray below the painting tools. Make sure the bottom one is selected, as this means that selections can be pasted "transparently" (in other words, the underlying colours show through any part of the clip that's in the background colour).

Draw a rectangle around the pretzel, and Control + drag it down to the bottom of the screen, to make a copy. Click anywhere outside the selection to paste it into place.

Repeat with the banana, Control + dragging it on top of the pretzel. Now pick the freeform selection tool, again making sure the transparency option is on. This is the bit that takes a little skill. Drag around the centre of the original pretzel to capture the area that will sit on top of the banana. Control + drag this into place, so it aligns seamlessly with the rest of the pretzel. The rabbit was done in a similar way, pasted transparently over a copy of the hat, then a copy of part of the hat pasted over the lot. Fairly pointless, but rather cool, I think.

Be selective
Every so often someone asks if there's a way to filter the contents of the "Recent Documents" list automatically.

So far, we've only been able to clear the entire list, either by right-clicking on the Taskbar and going to "Properties/ Start Menu Programs" and pressing the "Clear" button, or getting TweakUI (or a batch file) to do it on startup. Although I've yet to find a way to stop files getting on the list to start with, I have discovered the next best thing — selective deletion by file type.

If you open a DOS box and go to the Windows\ Recent directory (Fig 3), DIR will get you a list of the contents. Note that there are more files here than actually appear on the "Documents" menu. Also note that the long filename format, on the right of the listing, takes the format "my document.doc.lnk" or "picture.gif.lnk". So if you want to get rid of all the links to .GIF files, for instance, type into the DOS box (be sure to include the double quotes):

```
del "*.gif.lnk"
```

Repeat for any other extensions you might want to remove. You could automate this with a batch file on startup or close-down, but it won't work from AUTOEXEC.BAT; Windows has to load before long filenames are recognised.

Bugwatch
Although Win95 applications are supposed to include a de-installation routine, bitter experience has taught us that this doesn't always work. And, of course, Windows 3.1 applications installed under Win95 aren't able to register for de-installation either. Quarterdeck's Cleansweep 95 (v.2) has an "Install Monitor" feature that records changes to your hard disk, system files and registry. I used it a lot until one day I noticed that it wasn't recording changes to the registry. I was sure it used to, so I double-checked some old logs and, sure enough, it did, once upon a time. The culprit appears to be Internet Explorer 3, which, according
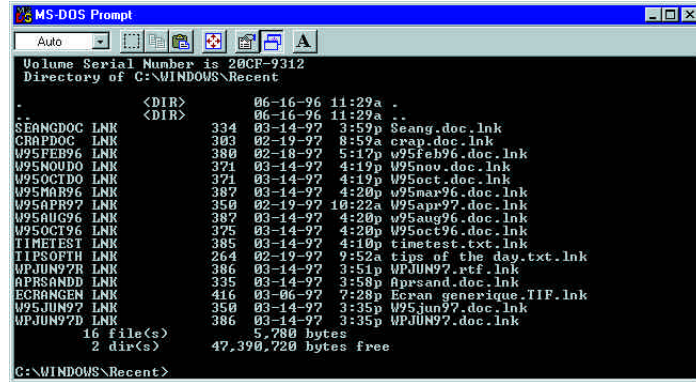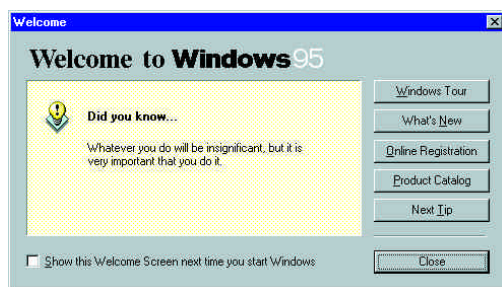
to Quarterdeck, "Updates the files ADVAPI32.DLL and OLEAUT32.DLL in the Windows\System directory. These updates cause the problems with Install Monitor. To work around this problem, replace ADVAPI32.DLL and OLESAUT32.DLL with older versions of these files. *Note: You will be unable to use Internet Explorer 3.0 if you do this."* Hey, what a great workaround! The cure, apparently, is to "Download and install the latest IE 3.0 patches from Microsoft's web site". Microsoft makes no mention of Cleansweep on the Explorer site, except to say that version 3 can cause problems installing Office 97. Nor does Quarterdeck explicitly state that version 3 solves the DLL conflict problem. Which makes the honours (or rather the lack of them) about even.

Cluster's last stand
Simon Roberts has a 1.6Gb drive and noticed that it backed up 719Mb or thereabouts. But if he right-clicks on C:\ and looks at the "Properties" in Explorer, he sees used disk space of 1.14Gb and free disk space of 371Mb. On the other hand, if he goes to the right pane, selects all in C:\ and right-clicks Properties, he gets a total size of 719Mb again. So where is the other 400Mb? It's not in the recycle bin, and he has tried defragmenting and a thorough scandisk.

There are two things to realise here. First, any report on the free space on drive C:\ has to be taken with a pinch of salt as the swap file (the part of the hard disk used as "Virtual Memory") is constantly changing. Open C:\Windows and find Win386.swp. It will probably be the biggest file there, so click on the top of the "Size" column in "Details" view to bring it to the top. Now do something like starting another application. Go back to C:\Windows and hit F5 to re-read the disk. Watch the figure change.

Having said that, the thing that's largely responsible for the missing space is cluster

size. On a 1.6Gb partition, disk space is allocated in units of 32Kb. Any file under this will occupy a full 32Kb cluster. Lots of tiny files are, therefore, extremely wasteful of disk space. But 400Mb? Surely not *that* wasteful. Well, I couldn't believe it either, until I used the "Find…" command to winkle out all files on my own 1.6Gb drive under 4Kb. Find gave up when it reached 10,000. So, at 28Kb wasted for each, that would account for 280Mb.

Were one to iterate the exercise for progressively larger file sizes, a total of 400Mb doesn't seem unreasonable. See next month's thrilling episode for some solutions to this problem.

Quickies

■ Double-clicking in the title bar toggles full-screen/windowed view: i.e. it replicates a single click on the middle of the right-hand group of buttons on the title bar.
■ Right-clicking on the title bar brings up the same menu as a left click on the icon at the left of the title bar (or Alt + spacebar).
■ Lost the volume control on the Taskbar? This should do the trick: Control Panel/Multimedia — Audio tab. Tick the box that says "Show volume control on taskbar".
■ If your NUMLOCK key refuses to start enabled despite the settings in the BIOS or CONFIG.SYS, add a key named "Keyboard" to the registry branch: **HKEY_CURRENT_ USER\ Control Panel\ Microsoft Input Devices**. Add a string value named "NumLock" to the key and set this to "ON".
■ If you're faxing from a word processor (or other application) use the "Print to" rather than the "Send to" fax option. It's more reliable and less hassle.
■ You can detach the WordPad toolbars or the toolbar and colour palette in Paint and move them anywhere.
■ It's not new, yet few people know that any Notepad file with .LOG as the first line will automatically add the date and time to the end of the file each time it's opened.

"Tip of the Day"

From Mahatma Gandhi, courtesy of Andrew Stratford

Name that PC

Fed up with being called "A. User"? Been working for "My Company" too long? You need REGEDIT. Tim Nott shows you how to change the user name and company on your computer.

This month, a friend asked me how she could change her name. Not the one her parents had given her, but the one her computer dealer had branded, seemingly permanently, into her new PC. It's what you see in the "Help/About…" boxes, and forms the basis for all sorts of things such as installing new software or creating templates, so it's a comfort to get it the way you want it. By a happy coincidence, in an attempt at self-improvement, I'd been reading the column of the illustrious sci-fi author and PC guru, Jerry Pournelle, who had been tackling this very thing. You may think *I'm* mad, but this guy is barking. He has a fine, robust style: phrases such as "…the new Orchid Fahrenheit Video 3D board. That sucker screams" are bounced around the column. He also doesn't shirk danger or excitement. "Cyrus, still running, fell about three feet to the floor. The bezels popped off the front, and the CPU-Cool chip fan I'd attached to the Barracuda hard drive hung out the front looking for all the world like an eyeball popped out of its socket." (Cyrus is a computer, I think.) What really amazed me was his scornful attitude to some of our best-loved Windows utilities. Okay, I admit to defaming the Great British Car Industry by comparing one of its most successful products with Poledit, but you should hear what Mr P says about Poledit's dear brother, Reg.

So, he wanted to change the user name and company on his PC, as the person who configured his new hard disk had

What's in a name: the problem…

…and how to fix it
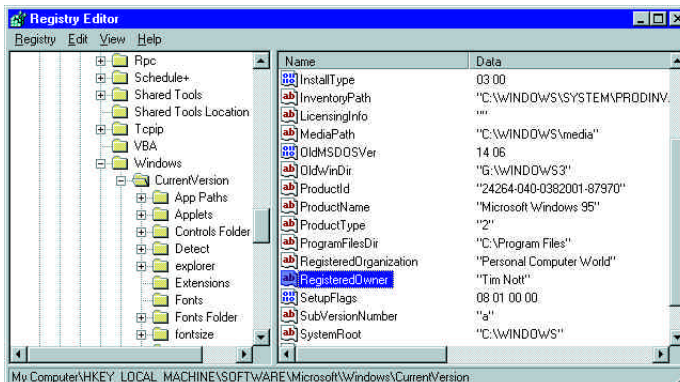
misspelled both. "The books say that a program called REGEDIT.EXE comes with Win 95… all the books warn you to be extremely careful. I tried it a couple of times, but I wasn't sure what I was doing so I never saved any changes I made. However, it became clear that what I wanted was in a hexadecimal file called SYSTEM.DAT." Uh-oh, Jerry. You don't save changes: they change dynamically. It gets better. Having made two backups of SYSTEM.DAT, he "attacked that file with the Norton Disk Editor. It turned out to be easy enough to find the hexadecimal equivalent of the word

'Mazgne'. A bit of study showed how the user and company names are stored, including what is used to terminate the string: it's an 01 followed by blanks. I looked up the hexadecimal equivalents of the English letters I wanted, used Disk Editor to fix my name and spell Magazine properly, terminated the strings with 01, and all's well." I won't bore you with the rest, but if you want chapter and verse, then I suggest you point your webby thing at byte.com/art/9701/sec14/art1.htm.

Anyway, I'm inspired by this no-nonsense macho stance and in future I'm going to write this column using EDLIN. For all those of you who've bought machines from box-shifters and are forever known as "A. User" of "My Company" but are too wimpish to deploy a disk sector editor, fire up that Regedit sucker and mosey on down to HKEY_LOCAL_MACHINE\ SOFTWARE\ Microsoft\ Windows\ CurrentVersion. Look for the two keys Registered Owner and Registered Organization: double-click on each to change.

Waltzing ma tilde

Every file on your disk has two names. One is the name that you see in folders, and the other is the one you'll see in DOS or File Manager. If you want to see both at once, open a DOS box and type "DIR /P" (the /P switch stops the listing scrolling off the screen). You'll see the Windows 95 long file name on the right and the DOS-compatible one on the left. If the Windows 95 extension is more than three letters — e.g. .HTML, the

Breaking the sound barrier

DOS extension — it will be truncated to three, .HTM. If the name itself is more than eight letters, it will be truncated to six, followed by a tilde (~) and a number; the number increments for each file with the same six first letters.

You can change this behaviour so that the full eight first letters are shown, so Tyrannosaurus.txt appears as Tyrannos.txt, not Tyrann~1.txt. Start Regedit and go to

```
HKEY_LOCAL_MACHINE\ System\
CurrentControlSet\ control\
FileSystem
```

You should see an entry entitled "Win31FileSystem" in the right-hand pane. If you don't, search the Registry for that text. Right-click anywhere in the right pane, and select "New/Binary value". Type NameNumericTail over the "New Value #1" default and hit enter. Double-click on the new value and type 00 in the box. Close Regedit and reboot.

Note that this only applies to new files; it won't update existing ones as their short names are already created. Also, if you create more than one file with the same first eight letters, subsequent ones will revert to the six + tilde + number format.

Sound advice

When God didn't make little green applets, he didn't make them much greener than the Sound Recorder. Its most annoying feature is that you can only record very short clips: depending on the quality (which you can select from File/Properties) this varies between six and 60 seconds on my machine. Although you may well have better recording software bundled with the sound card, there is a way around this limitation. Hit the record button and wait until it reaches the end. Don't bother actually recording anything at this stage, this is just preparation. Hit the record button again: it will have a little shuffle around, then record another slice. Repeat until the number of seconds shown in the "Length" panel is enough for your needs. Then rewind to the

beginning and do the real recording. Warning: you can produce some very big files this way, and they might break up on playback if you don't make as much memory free as possible. The Media Player seems to cope better with playback than the Sound Recorder. Thank you, Peter Darton, for that tip.

## Recent files and recalcitrant colours

Two queries this month on the "Documents Menu". Dave Smith was having problems getting the Windows 3.1 versions of Lotus 1-2-3 (.wk4) and WordPro (.lwp) files to appear on this, the list of the last fifteen files worked on. The problem is that 16-bit programs can't add their files to the MRU (most recently used) list. This, at least, is the word according to Microsoft. But Dave goes on to say that this does work with old Ami Pro (.sam) files, and also with any 1-2-3 files that are opened from a shortcut on the desktop. I can't reproduce this strange situation, so I throw it open to the floor.

Tim Parkinson has the opposite problem: "How can I exclude filetypes from the Documents Menu? I don't really want

Tip of the day

Welcome back to the section where we endeavour to improve upon the wit and wisdom of the Windows "Tip of the Day". Remember, you can view these at any time by running Welcome.exe, and you can edit the existing tips by diving into the Registry at HKEY_LOCAL_MACHINE\ SOFTWARE\ Microsoft\ Windows\ CurrentVersion\ explorer\ Tips – BUTR first. A couple of good one liners from Andrew Stratford. "I refuse to have a battle of wits with an unarmed person" and "I never make predictions — and I never will". Mike Kirk achieves screenshot stardom (below), but the Mrs Smegma prize for utter weirdness goes to Dave Ives of Hebden Bridge. "Mary had a little cow
It could not walk properly
Bovine spongiform
Encephalopathy"

**Thank you, Mike Kirk, for this inspirational thought…**
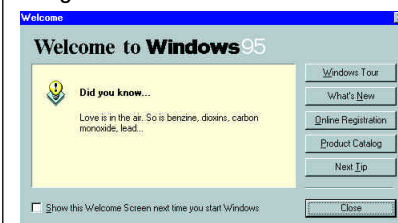
gifs and jpegs excluding the latest Word documents or text files I've opened." Sorry, Tim, and others who have mentioned this, you can't. Not unless you use a 16-bit program for editing bitmaps, anyway.

Noel Gallagher (no, not that one) had a little problem with his desktop settings. No matter what he changed the fonts and colours to, in Control Panel Display, every time he started, they reverted to Windows Standard. Noel did once have multiple users enabled, but not any more. This sounds very much as if someone has been playing with the System Policy Editor, and the cure is to load the latter again (Poledit), go to :File/Open Registry… double-click on the Local User Icon, and expand the branch named "Desktop". Clear any check marks by "Wallpaper" or "Colour scheme", and close the property sheet. Unlike Regedit, Poledit doesn't save changes automatically, so "File/Save" before you close Poledit.

David Nichol wanted to know how to convert a fax to a normal bitmap format. Faxes are stored in one big mailbox file, and although you can export them as individual .AWD files, I don't know of any software (apart from the Exchange Fax Viewer) that will read this. The trick is, while viewing the fax, to click on the "Select" button, drag out the area of the fax you want, then "Edit/Copy" or just "Edit/Copy Page". You can then paste this into any bitmap editor, though Windows Paint tends to choke on hi-res full pages.

Quick Explorer tips

1. If you want to select nearly all the files in a folder, highlight the ones you don't want, and Edit/Invert selection.
2. If you hold down the Shift key when double-clicking a folder in folder view, that folder will open in Explorer (i.e. two-paned) view.
3. Often, you want to make a safe copy of a file in the same folder, prior to messing around with the original. In Windows 3.1 File Manager this was simple — and still is if you run Winfile.exe in Windows 95. You highlight the file, hit F8, and then type in the new name. There's no direct equivalent in Windows 95, but if you right drag and drop a file in the same folder, then choose "Copy here", you'll get a copy of the file, named, appropriately enough, "Copy of xxx".
4. To open Explorer with all drives showing but not expanded, create a shortcut with the command line Explorer.exe /e, /select, C:\.
5. Clicking on a heading in "Details" view orders the files by that category. Clicking again reverses the order.
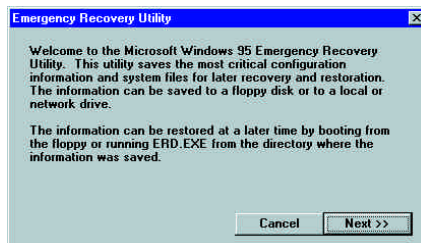
The ultimate Windows 95 survival disk?

Not quite. There isn't room…
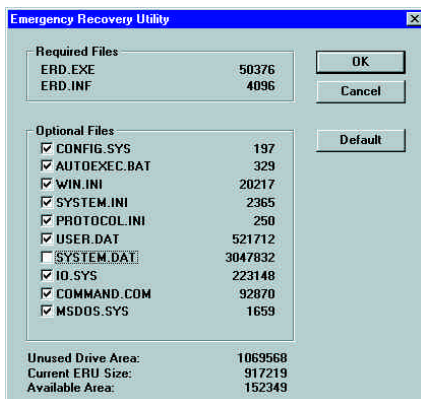
PaintShop power users only
Here's a clever tip for PaintShop Pro 4 users, sent in by Tim Bailey. It let users browse pictures by right-clicking on a folder.
1. In Regedit, go to
```
HKEY_CLASSES_ROOT\ Directory\
Shell
```
2. Right-click on this and add a new key, called "Browse Pictures".
3. Right-click on this new key and add another new key called "Command".
4. In the right pane, double-click the "Default" entry and edit it to read
```
drive:\path\psp.exe /BROWSE %1
```
replacing "drive" and "path" to suit. (PaintShop 3 users should use drive:\path\pspbrowse.exe %1.)

Safe keeping
I've lost count of the times I've written "but first, back up the Registry". What's worse is that I've just noticed that this month's column has already offered three Registry tweaks and none of them contained the magic words. So, before you try them, BUTR. But how? The simple way is to make copies of SYSTEM.DAT and USER.DAT, which live in your Windows folder, to a safe place — for argument's sake, C:\Safe. Note that these files have the System, Read-only and Hidden attributes set, so to restore them you'll need to boot to DOS (press F8 at boot and choose Safe Mode Command Prompt) and do the following.

```
CD C:\Windows
attrib -h -r -s system.dat
attrib -h -r -s user.dat
copy c:\safe\system.dat
c:\windows\system.dat
copy c:\safe\user.dat
 c:\windows\user.dat
attrib +h +r +s system.dat
attrib +h +r +s user.dat
```

There's also the Configuration Backup utility. It's located on the CD-ROM at Other\Misc\Cfgback, and lets you keep up to nine Registry backups in compressed form. However, you have to be running Windows to restore the Registry from these, which is a bit of a challenge if it won't load due to a corrupt Registry.

Digging further into the Windows CD-ROM (Other\Misc\Eru) reveals the rather more useful Emergency Recovery Utility. If you copy this folder to your hard disk and run ERU.EXE, you get the chance to back up not just the Registry files themselves (SYSTEM and USER.DAT) but various other essentials, such as CONFIG.SYS, AUTOEXEC.BAT and various .INI files — you can choose which. By default, these get backed up to a bootable floppy disk — i.e. one that has had the system files copied on to it. In the event of catastrophe, restarting the PC with the disk in the drive will magically restore everything. There's a snag to this, however. After creating a boot disk, there is only about 1Mb left on a standard floppy. So when I tried this, it couldn't copy my SYSTEM.DAT file which somehow, behind my back, had grown to over three megabytes.

Fortunately, you can save the back-ups to a folder anywhere on your hard disk: ERU will copy the files, plus the program that restores them, ERD.EXE, to this folder. Let's say you choose C:\ERD as the folder. Restoring is then a little more complicated than from floppy. First, *don't* try to restore from within Windows. Either boot from a start-up floppy, or hit F8 during normal boot and choose "Safe Mode Command Prompt Only". Then change to the directory (CD C:\ERD) where you saved the files, and run ERD.EXE. Once the restoration is finished, you'll see a triumphant message. Reboot in the normal way; if you just booted from a floppy, make sure you remove it first.

Cycling to work

Tim Nott explains the technique known as colour cycling, which you can use to "animate" your startup screen. And the History folder: web skeletons in your cupboard… revealed.

We've dealt before with changing the Windows start-up screen, but just to recap, the trick is to create a 256-colour .BMP file, 320 (w) x 400 pixels (h), and save it as "LOGO.SYS" in the root directory of the disk from which you boot (normally C:\). This doesn't change anything permanently; if you delete it, the default screen, embedded somewhere in the innards of Windows, will return. But what has hitherto eluded us, is how to achieve the animation: those jolly blue flashing bars at the bottom of the screen that keep us amused while Windows is loading. Now, thanks to the efforts of Jason Ozin, who wins a book or record token for his pains, all can be told.

What you see isn't, strictly speaking, animation. It's a technique known as colour cycling. In a 256-colour bitmap, also known as an "indexed" image, each pixel is stored as a one-byte number that refers to a place in a palette of 256 colours. The palette, stored in the same file, is optimised for the image: a clouds-and-sky scene would have lots of shades of blue and white; an autumn-trees scene lots of shades of red and brown. This, incidentally, is why you sometimes see bizarre colour changes when viewing multiple images on a 256-colour display: the altered image is being displayed in the palette of another image.

Each colour in the palette is stored in three bits corresponding to 256 values each of red, blue and green. Colour cycling scrolls some or all of the values in the palette, so each pixel cycles through the range available. If the graduations are subtle, this gives the illusion of a flowing "plasma" effect, as seen in the Chromazone screensaver *(Hands On Win3.1, Sept 1996)*.

To create a cycling image you'll need a bitmap editor. You can use something like Corel Photopaint or Adobe Photoshop if you want to be posh, but I used Paintshop Pro (Fig 2); there was a trial version on February's CD-ROM. It has the advantage

Fig 1 (above) Enabling animation with a hex editor
Fig 2 (left) Editing the palette in Paintshop…
Fig 3 (below) …but it's easier to export it to Notepad

of being cheaper, easier to use and (a killer feature in this case) being able to import or export a palette as a plain text file.

You can use Windows Paint, but you won't have much control over what's animated as you won't be able to edit the palette. You'll need a hex editor and a sturdy anorak. For the former, I used Hexedit (Fig 1): it's old but simple to use and there's a copy on our CD-ROM in Hedit.ZIP.

Catch your bitmap (preferably in 16 million colours) and resize or crop it to 640 x 400. Although the final image will be half as wide, it's actually stretched to this size when displayed, so you'll be working in WYSIWYG mode. Do everything you want (like adding anti-aliased text that won't
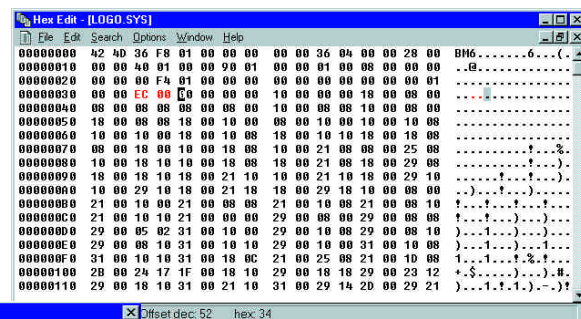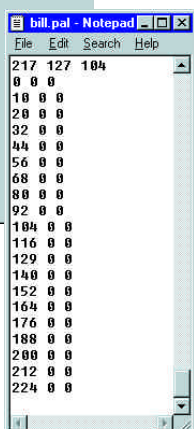
show the "staircase" effect) while in this mode. Reduce the colours to 236. In Paintshop, you can do this by going to Colours/Decrease Colour Depth/X Colours. Select Nearest Colour and deselect Include Windows Colours. This will leave 20 spare colours for your animation.

If you then go to Colours/Edit Palette you should see that the last 20 colours are all black and have values of 0,0,0. Double-click on one of these and you'll be able to edit it, either by dragging the sliders or entering red, green and blue values in the boxes. This is the tedious bit, as you must make sure that none of the new colours have already been used. There is an easier way: save the palette, from the Colours menu, and you'll find you can load this file into Notepad (Fig 3); you'll see a three-line header, followed by a line for each of the 256 colours in the form (for example, 256 0 0 is bright red). The last 20 should all be 0 0 0. I wanted some shades
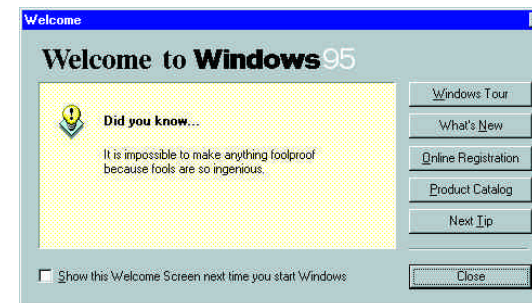
of red going to black, so I edited these to read 0 0 0, 10 0 0, 20 0 0 going up in steps to 228 0 0. Make sure none of the colours are already in the file. If it's a photo this will be unlikely, but if so, skip around them with a slightly different value. Save the file and with the original image open in Paintshop, load the altered palette. Using only the 20 new colours, create the bits you want to animate (double-click on the foreground and background swatches to choose).

I wanted to create a shaded circle effect but you can't use shaded fills in 256-colour mode. The workaround is to create a new file in 16 million colours, create the shaded fill using the same start and finish colours (by double-clicking the swatches and typing in the RGB values), then use the elliptical selection tool to copy and paste into the original file. When you're happy with everything, resize the image to 320 x 400 (Image/Resize), making sure that Maintain Aspect Ratio is unticked. Save the file as a .BMP (Windows RGB encoded).

Copy the file to C:\ and rename it to LOGO.SYS. Load it into the hex editor and go to byte 00000032. Change the value to EC (the hex equivalent of 236) which will mark the start of the cycling part of the palette. Change the following byte to 00 or 01: the former cycles through the colours and jumps back to the beginning, the latter cycles up and back down again, smoothly.

Save, exit and restart the computer: your new animated start-up screen should greet you. To give you some idea of what can be done, I've included two I made earlier on our CD-ROM (in Logos.ZIP). Bill.sys uses the red shaded circle effect mentioned earlier, as well as some static text that changes colour. Psyched.sys is a slightly doctored screen grab from Chromazone; in this case the cycling starts at hex 85. Copy either to C:\ and rename it LOGO.SYS.

Loony Bin

Following the exposé of the Recycle Bin *(November 1996)*, Matthew Connor wrote to tell me that his Bin had recently
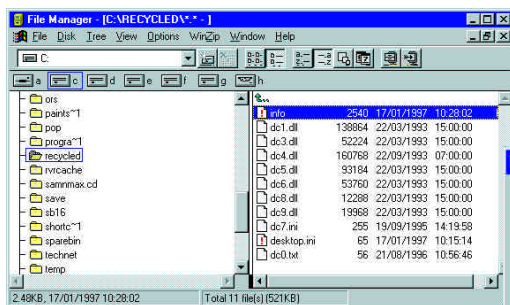

Fig 4 Thank you, Peter McGarvey

developed strange properties:
1. *"Double-clicking the desktop icon reveals nothing: 0 objects, 0 bytes.*
2. *"DOS says there are 313 files in c:\recycled.*
3. *"Choosing File, Empty Recycle Bin elicits 'Are you sure you want to delete these 1041 items?'*
4. *"With the Recycle Bin window open, a newly deleted item will appear in the Bin, but not after it's closed and re-opened. The number of files in 2 and 3 above are both increased by 1."*

The most likely causes are that one or both of two hidden files in c:\recycled has been damaged, or that someone has moved files to C:\recycled using File Manager or DOS. Although the Bin

Sod's law

It's tip of the day time again. For those of you who haven't been following the saga, the communal goal is to create a set of suitably amusing replacements for the Windows "Tips of the Day".

Stephen Oman offered a generous selection including "Programming is an art form that fights back". Dave Ives came up with three including the oldie-but-goodie: "It doesn't matter who you vote for, the government always gets in". But star of the month is Peter McGarvey, whose example graces our screenshot (Fig 4, above).

His covering letter was even better: "Once upon a time I wrote a program, in C, to display a short piece of amusement, at random, from a large text file of amusements every time my computer started. This program was written for MS-DOS, the greatest operating system in the universe. All my friends saw this program and asked for a copy.

"However, the next greatest operating system in the universe, Windows 3, soon appeared. I wrote a program, in C++, to display a short piece of amusement at random from a large text file of amusements every time Windows started. All my friends saw this program and asked for a copy.

"However, the next greatest operating system in the universe, Windows 95, soon appeared. Alas, the program written in C++ started to misbehave and all my friends started to complain. To placate them I hacked the Windows registry using a subset (180 out of 2,000+) of the large text file of amusements to rewrite the built-in 'Microsoft Tips of the Day'.

"The next greatest operating system in the universe, Windows NT 4.0, has just appeared. However, all my friends, and Bill Gates, can sod off."

appears as a single entity, you get a Recycled folder on each hard drive or partition (Fig 5).

If you look at C:\recycled in File Manager (Run winfile.exe with View/All Files ticked and View/By File Type… everything ticked) you'll see a number of files named Dcn.* where "c" is the drive letter, "n" is a number and "*" the extension of the original file.

There should be two other files with the "hidden" flag set (i.e. an "h" in the right-hand column) named "Info" and "Desktop.ini". (There may also be Dcn.* files with the "h" attribute set, but this isn't important.) The Info file maps the Dcn numbers to the original file name. If it's damaged, nothing may show in the bin. Try deleting it. According to Microsoft it should be recreated when you start Windows, although this didn't work for me.

Alternatively, it may mean one or more of the recycled files themselves are damaged. If this is the case, Microsoft recommends you create a copy of the Recycled\Desktop.ini file in another folder, then delete the entire contents of the Recycled folder. Next, restore the Desktop.ini file to the Recycled folder and repeat the process for each drive or partition.

Note that doing this permanently deletes all files in the Recycle Bin.

Grovel

■ Stephan Freeman asks, re February's Hands On: "Does audio data really take up 10Mb/sec? So a one-minute long recording is 600Mb, and 72 minutes is 43.2Gb? Sorry, I had to point it out — I couldn't resist it." Thank you, Stephan. That should, of course, have been 10Mb/minute.

■ Concerning my comparison of Poledit with a well-known all-British motor vehicle, Jack Dobson complained: "Having just spent £9,000 on a new Reliant Robin, I am less than pleased at your sneering remarks. For me, it spoilt an otherwise good article." Sorry, Jack. I'll add the Reliant Robin to my list of politically incorrect subjects for humour.

History lesson

Those of you using Internet Explorer 3 will have noticed that Windows maintains a History folder, listing the URLs of recently-visited sites. This is in addition to the Temporary Internet Files folder that caches the web pages and graphics themselves. Like the Recycle Bin, Fonts and others, these are special folders: if you open them in File Manager, you'll again see a file called Desktop.ini. You'll notice, too, that things are not as they seem: under DOS or File Manager, the Temporary folder contains four sub-directories and the History folder contains, apart from Desktop.ini, just two files; MM256.DAT and MM2048.DAT. The former makes sense as it's more efficient to store and retrieve lots of small files in this way, rather than all in one directory. The latter makes sense as it saves disk space: if several hundred links were stored as individual files, each would take a "cluster" of hard disk space (on a 1Gb partition, that's 16Kb each).

Dig into the View/Options of Internet Explorer and you'll find you can empty both these folders. Or can you? Having cleared the History folder, you'll still find the two DAT files in File Manager. Load these into a text editor and you'll discover details of all the URLs and searches you thought you'd deleted. I'm not sure whether this is a gross breach of personal privacy or a heaven-sent tool for supervisors to crack down on unauthorised web browsing. But I think we should have been told.

Quick tips and clever tricks

■ Following January's tip for shutting down the computer without the confirmation dialog, Nick Mortimer and Tariq Atchia wanted to know if this shortcut could be modified to restart Windows. I have to confess that I haven't been able to find out, although it would seem likely. However, there is a quick way to log on as a different user. Press the Window key + L. If you

haven't got a Windows 95 enhanced keyboard, then you can use the Key Remap utility in Kernel Toys (on February's CD-ROM) to make the right-hand Ctrl and Alt keys behave as if they were the Window and Menu keys. Thank you, Ed Scrase.

■ Martin Short wrote: "In Win3.1 programs running under Win95, the drive letter heads the directory tree in Save As… This can be frustrating if I want to save some work on the desktop. Is there a way to modernise these trees?" In a word, no. Windows 3.1 applications use the old, common Open/Save dialog which maps folders directly to the DOS directory structure. This can't cope with the peculiarities of Win95, such as having C:\Windows\Desktop as a container for other drives.

■ Kev Baldry asks: "When opening Explorer, drive C: is always shown expanded. If I wish to browse, say, my CD-ROM on D: I have to scroll up drive C's listing until I can contract it. Is there a way to display all the drives just as their icons and not expanded when starting Explorer?" Yes, there is. Open the Start Menu folder, find the Explorer shortcut and right-click on it. Select Properties, go to the Shortcut tab and change the Target to read

```
C:\WINDOWS\EXPLORER.EXE /n./e./
select,C:\
```

■ Steve Luby writes: "When 32-bit programs lock up in Win95, I usually press Ctrl-Alt-Del which brings up the Close Program dialog box. Instead of proceeding to press the End Task button to terminate the program, just wait three or four seconds and press Cancel. For some reason this seems to purge the affected memory area and in a couple of seconds you are returned to your application, complete with all the data input up to the moment of lockup. I have tried this with several applications (most often with Word 95) and it seems to work very well most of the time." Word 95 locking up, Steve? Surely not! I've yet to try this, but it sounds like it's worth a go.

■ A quickie, from Peter Smith — I thought we'd had this before, but it seems not: "I have just realised that with Internet Explorer installed you can connect to web sites via the Run command on the Start menu. This led me also to find that you can put internet shortcuts onto the start menu as well."