What's on
the menu?

Advice on config.sys menu features from Tim Nott, and
how to find those lost bits and pieces.

In July's column I described how you can use CHOICE.COM to offer alternatives on bootup. Thank you to Raymond Jones and Knut Jespersen who both pointed out a better way, which is the built-in CONFIG.SYS menu feature introduced with MSDOS 6. This is much more elegant and versatile, as it means you can control not just the commands processed by AUTOEXEC.BAT but those in CONFIG.SYS as well. Inevitably, it is rather more complicated.

Let's take a likely example. You've got a PC with a CD-ROM, sound card and mouse. Normally you boot straight into Windows, in which case you need the DOS CD-ROM drivers but not the mouse or sound-card drivers as these are taken care of within Windows. At other times you want to boot to the command prompt and need the mouse and sound card.

There is a utility called Interlink that you sometimes use for transferring files from a notebook PC via a serial cable connection. This needs to be loaded into memory before Windows starts, but you don't want to use that memory unnecessarily.

You may occasionally want to run your PC completely "stripped down" to diagnose problems or get a memory-hungry DOS game or application to load, so you need a choice of four configurations.

The easiest way to explain this is by using an example (Fig 1), with an imaginary set of CONFIG.SYS and AUTOEXEC.BAT. The former is broken into "blocks", each of which starts with a label enclosed in square brackets.

Fig 1 config.sys à la carte

```
CONFIG.SYS
[menu]
menuitem=windows, Start Windows
menuitem=dos, Normal DOS
menuitem=interlink, Windows with Interlink
menuitem=bare, Bare DOS
menudefault=windows, 5
menucolor=15,2

[common]
files=50
buffers=10
device=C:\himem.sys
shell=c:\dos\command.com c:\dos\ /p

[dos]
device=c:\cdrom\mycddriv.sys /D:MSCD001
device=c:\sound\dossound.sys
device=c:\dos\mymouse.sys

[windows]
device=c:\cdrom\mycddriv.sys /X /Y

[interlink]
include=windows

[bare]

[common]
```

The first section defines the subsequent sections of commands as well as their descriptions on the menu. The "menudefault" command sets the default choice and delay, and "menucolor" sets the background and text colours. So here we'll see, on booting, a numbered list of four items, starting with "1. Start Windows…". If no-one presses a key during the next five seconds, this will be the automatic choice and all will appear in vibrant yellow text on a blue background (see the panel, "Over the rainbow", page 261, for a list of the colour values).

The next section is entitled "common": it doesn't correspond to a menu choice but contains everything that's common to each (i.e. things that will always be loaded or set). After that come the individual menu-defined sections, each containing the relevant options over and above the common set you'll see. It doesn't matter in which order they come. You'll see that the (interlink) section has the "include=windows" line. This saves us copying the contents of the (windows) section line by line.

Although the [bare] section is empty, it must be present as it corresponds to a menu item. If omitted, you'll get an error message. There's another [common] section which is empty now, but if any third-party installation adds lines to the end of CONFIG.SYS they will be processed. If this was left out, they'd be tacked on to the [bare] section, which would cause much wailing and gnashing of teeth.

Life's a batch
The astute reader will notice that there is absolutely no difference between the "Start Windows" and "Interlink" choices at this stage. This has to wait until AUTOEXEC.BAT, which "remembers" the choice made in

CONFIG.SYS as this is passed on as an environmental variable with the name CONFIG. A mythical AUTOEXEC.BAT might look like this:

```
AUTOEXEC.BAT
prompt=$p$g
set temp=c:\temp
c:\dos\smartdrv.exe
goto %config%

:windows
path c:\windows; c:\dos
mscdex.exe /D:mscd001
win
goto end

:dos
path c:\dos; c:\dosapps
mscdex.exe /D:mscd001
c:\sound\soundos.exe /X /Y
goto end

:interlink
path c:\windows; c:\dos
mscdex.exe /D:mscd001
interlink.exe
win
goto end

:bare

:end
```

Here, the first three lines constitute the common section, and the "GOTO %CONFIG%" command branches to a label that corresponds to the section header in CONFIG.SYS. This time, the labels are preceded by a colon rather than being enclosed in square brackets.

The "windows" section contains its own path command, loads the other part of the CD-ROM driver and starts Windows. The "DOS" section specifies a different path,

loads the CD-ROM software and processes some imaginary command to initialise the sound card. The "Interlink" section does all the "windows" stuff, but loads INTERLINK.EXE as well, and the "bare" section doesn't do anything. Once again, it has to be present otherwise the "GOTO" command will produce a "label not found" error.

Note the very important "GOTO END" command after each section. It doesn't have to be "end" but a corresponding label must be placed at the end of AUTOEXEC.BAT. If you don't do this, the commands will run on, unlike the sections in CONFIG.SYS. So, on exiting Windows, the batch file would try to run mscdex.exe again, load interlink then restart windows.

If you want to be really clever and are familiar with batch programming, then you can also use the "IF" command with the CONFIG variable. In this case, CONFIG must be surrounded not just by percent signs but by double-quotes, too. Remember you can use SYSEDIT.EXE to edit CONFIG.SYS and AUTOEXEC.BAT side-by-side from within Windows.
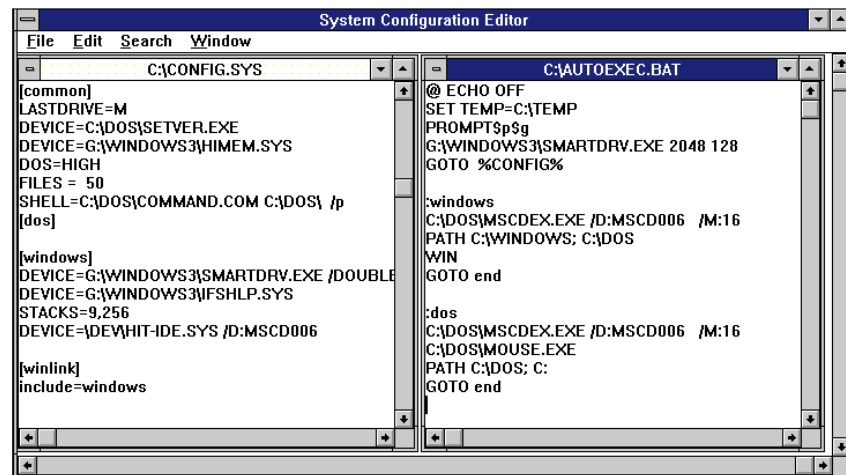
Where are they now?

From time to time, bits and pieces of Windows may go missing. There's usually a fairly irrational reason for this, so before you reinstall check out the following guide to self-enlightenment:

Q. Where have all my TrueType fonts gone? They're all listed in WIN.INI, and the .FOT and .TTF files are all present but I can't see them on my word processor's list.

A. Do they all display correctly in Control Panel/Fonts?
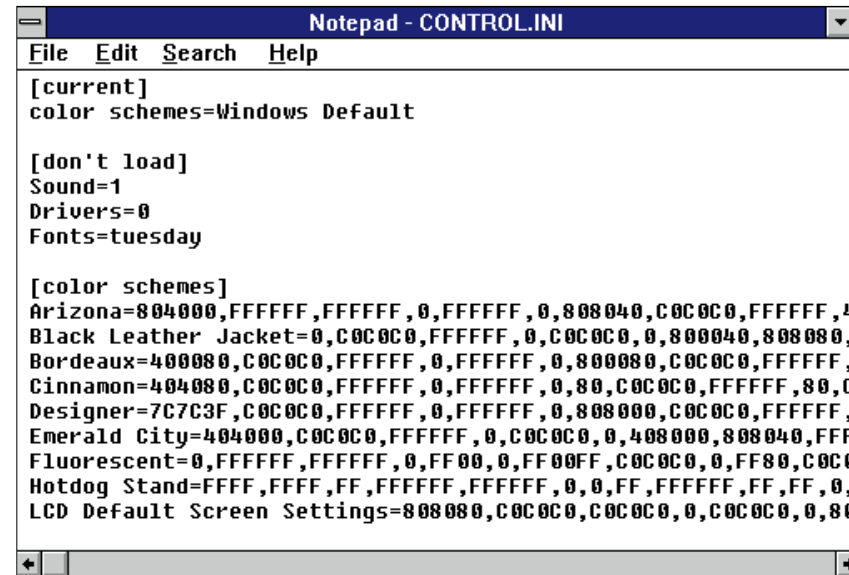
Q. Yes.

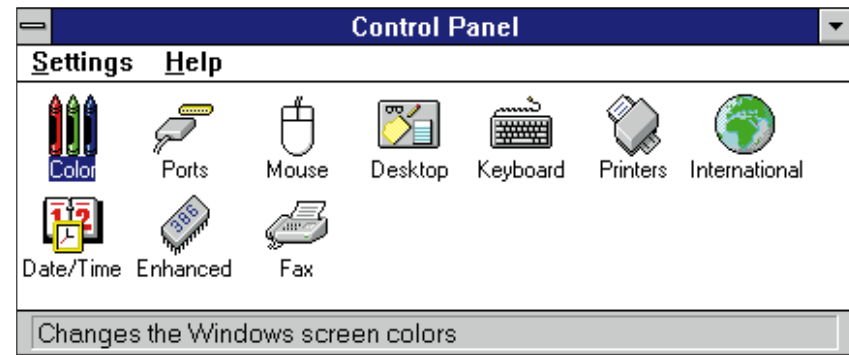A. Have you clicked on the TrueType button and checked that TrueType is enabled?

Using Sysedit on AUTOEXEC and CONFIG. It makes backups as .SYD

It doesn't matter what it equals…

…if it's in [don't load] it won't load

Q. Of course. Do you take me for a fool?

A. No comment. Have you got a printer driver installed that will print TrueType?

Q. I most certainly have. It was all working yesterday.

A. Is it still set as the "Default Printer"?

Q. …I think I see the problem. The default printer is set to "Generic /Text Only".

A. Which, of course, doesn't support TrueType.

Q. OK, clever-clogs, now tell me where my icons have gone. I just see black blobs in Program Manager.

A. Have you upgraded your display card

recently? Are you running in 16- or 24-bit colour?

Q. 'pon my soul! If that's the same as 65,000 or 16.7 million, you're dead right.

A. This is a known bug. There's a memory limit in Program Manager groups which limits the size to 64Kb. This translates to around 18 icons in 24-bit depth. Use fewer colours, or split groups into smaller ones.

Q. And what about Control Panel? Some of the icons have disappeared completely.

A. Are all the .CPL files present? In Windows/System, you should have MAIN and CPWIN386. If you have multimedia stuff installed, you should also have DRIVERS and SND, and with MS Mail, FAX. You might also have third-party .CPLs for other devices.

If any of these are missing or damaged, you can reinstall them by using EXPAND.EXE on the original compressed files on the installation disks. Look for the corresponding .CP_ file. Another possibility is that there is a copy of KRNL386.EXE in the Windows directory. This should only be

You'll only see files that match what's in the "Name" box

in WINDOWS\SYSTEM.

Q. They're all present, and apparently undamaged.

A. Then someone's been editing your CONTROL.INI and has added a [Don't Load] section. Anything listed under here (the names are the same as the Control Panel icons) followed by an equals sign, followed by anything, won't load.

Q. And what if Control Panel disappears altogether?

A. Once more, someone has been meddling in CONTROL.INI. If there is a negative value for X or Y given in the [MMCPL] section, then Control Panel is loading "off-screen".

Q. Good grief, there are some wicked people about. Now look, this is getting rather embarrassing as loads of files seem to have gone missing. According to DOS, there are 32 assorted files in this directory, but File Manager only shows README.TXT and REGISTER.TXT.

A. You haven't got the others set to "hidden" or "system", have you?

Q. Of course I haven't. And anyway, I've got "Show System/Files" checked in the "View/By file type…" dialogue.

A. And above that?

Q. Yes, Directories, Programs, Documents and Other files are all ticked.

A. And above that?

*Q. Aha! I think I see the problem: some bounder has set the "Name" box to *.txt.*

A. Which is why you only see .TXT files.

*Q. Indeed. Back it goes to *.* and all my files are back. Hurrah!*