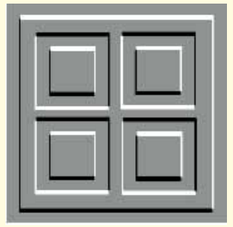


A sense of **insecurity**

To restrict users on a system, it is probably better to avoid the built-in safeguards of Windows 3.x. There are various d-i-y security measures but a more serious approach is sometimes needed. Tim Nott casts his private eye over the options before visiting Bob's country cousin.

"Windows 3.x security" is not a phrase that trips comfortably off the tongue — rather like "underwater cycling" or "acid house tranquillity". For mission-critical security (say you run MI5, or the Bank of England for a living) you need Windows NT. But there are a whole host of situations in which you might want to restrict users in some way.

Administrators might want to stop users messing up their carefully crafted installations or installing unauthorised software. Teachers might want to prevent their pupils from installing SAMFOX.BMP as Windows wallpaper. Small-business users may want to keep junior staff away from the more intimate details of the company's financial affairs. Parents might want to prevent their kids having access to Mum and Dad's work files and personal correspondence.

Although Windows does have a few built-in safeguards they aren't really any good. Take the password-protected screensaver — well, don't bother actually, because all that's needed to get around this is to turn off the PC and restart (possibly losing some of the victim's data in the process). And although the password itself is stored in encrypted form (hah, that'll fox 'em), you can get around this by disabling the password protection in Control Panel or by deleting the encrypted password from CONTROL.INI. You don't even have to be in Windows to do the latter — any DOS text editor will do.If you want to stop people messing around with Program Manager or installing new software, you can add a Restrictions section to PROGMAN.INI. This one has been in previous *Hands On Windows* columns before, but just for the record here it is again:

```
[Restrictions]
EditLevel= 1 – can't create, delete or
rename groups, 2 – nor program items,
3 – can't edit item command line, 4 –
can't change any item properties.
Restrictions are cumulative.
NoRun=1 – disables the File/Run...
command
NoFileMenu=1 – removes the "File" menu
completely
NoClose=1 – can't close Program
Manager
NoSaveSettings=1 – can't save
settings.
```

This, you'll be pleased to hear, has only two serious flaws: firstly, you can still add program items by dragging them from File Manager; and secondly, anyone with a text editor can remove the settings.

Another trick is not to use Program Manager as the shell. Open SYSTEM.INI and add to the SHELL=c:\path_to \wordproc.exe (or whatever word processor your office slaves use) and they'll be stuck in there without being able to run anything else. Unless they have the bright idea of using the word processor to edit SYSTEM.INI, or knocking up a few macros to run other applications.

Losing control

Control Panel has a similar feature: create a section in CONTROL.INI entitled [Don't load] and add entries such as desktop=1. This will stop the desktop icon loading when Control Panel runs. This might be fine for discouraging the half-hearted or accidental meddler, but once again, there are two ways around this: edit CONTROL.INI; or use the "control panel" tip shown in the *Ten Top Tips* box (on page 259) to File/Run the item. Unless, of course, some spoil-sport has disabled File/Run in which case go back a paragraph or do it from File Manager.

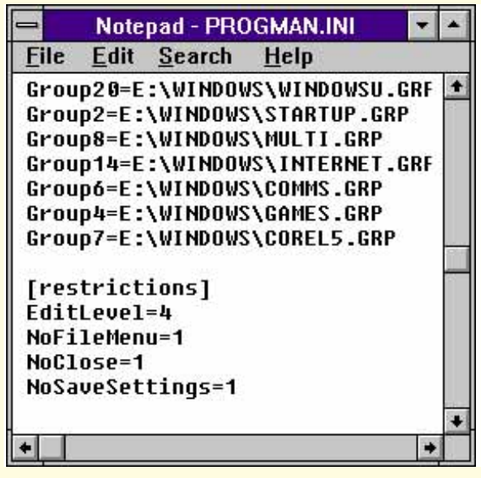
At file level, you can either hide directories and files, or make them read only. But then File Manager has an option to "Show hidden/system files" and the facility to unprotect them again. You could, of course, remove File Manager from the system or make it hidden, in which case Hacker Harry would have to use the DOS ATTRIB.EXE command. Remove ATTRIB.EXE and then you have no way of seeing the files yourself unless you carry a copy around on a floppy. As will Hacker Harry. Then you can have clever batch files that copy standard sets of .INI files before Windows is started. Hacker Harriet edits the batch files. And so it goes on.

So, basically the System manager (whether this is the office boss, a teacher or Mum) has two choices: either to use the built-in Windows restrictions, and leave the PC wide open to anyone with the basic literary and computing skills to operate a text editor; or to restrict the functionality of the PC to such an extent that the users would be better off with a pencil and paper.

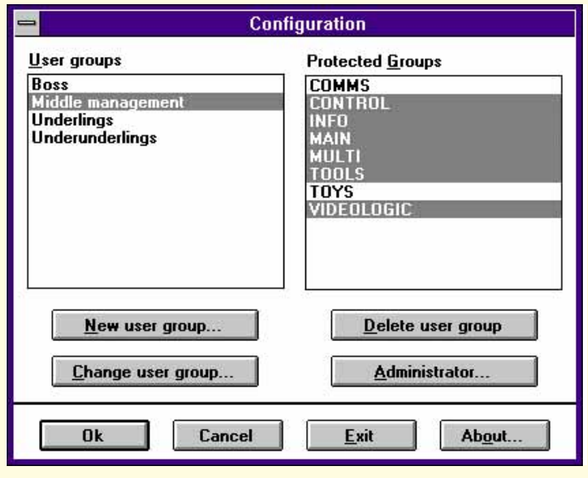
Even though there are alternative Windows shells, such as Central Point Desktop that offer some degree of protection you might quite understandably not want to shell out (*sorry*) the money or invest the learning time.

Secgroup, a freeware utility, makes a slightly better stab at Program Manager security. First you must set yourself up as the system administrator and issue yourself a password. Next, you decide which program groups you'd like to protect. Then you set up user groups, each with their own password and decide to which of the protected groups that password will allow access. Any group that's minimised can't be opened without a valid password so there are three levels of security for each group of users: free for all, password protected, and access denied. The System administrator has quick access too, via a dialogue box, to the Program Manager restrictions settings.

The search for security



Pretty poor security...



...getting better...

...and much better

It's a fairly handy way to keep File Manager or Control Panel, say, out of the reach of small children and casual users. But again, it's terribly simple to crack as it requires SECGRP.EXE to be loaded in the **[windows]** section of WIN.INI. And the idea of a group password is extremely insecure — I reckon half a Mars bar would be about the going rate for a school pupil in class 5c to get the password out of class 5b. But if you want to give it a whirl it's in the Windows/Files topic on CIX (SECGRP.ZIP — 20,794 bytes), on this month's cover CD and you can contact the author, Andreas Furrer, at s_furrer@ira.uka.de.

Bob's your uncle — Bubba's his country cousin

It's Bubba's place! This friendly Windows front-end is simplicity itself, and fun, too

You may have heard of Bob, the easy-peasy Windows shell for those who find Program Manager too much of a challenge. I haven't seen this but I have seen Bubba, a multimedia Windows front-end for those who find Bob too taxing. You'll be pleased to hear that this is freeware and (if everything has gone smoothly) should be on the cover CD-ROM. It's also available on Compuserve GO OSOSOFT, and you'll need VBRUN300.DLL for it to work.

Although you never actually get to meet Bubba in person, you soon gain a clear mental picture of the guy: he's a good ol' boy with a heart of gold and a head of hickory. He drives a '77 Chevy pick-up whose colour scheme is rust and filler, buys his groceries at gas stations, and the loves of his life are shotguns, dogs, beer an' wimmin, in that order.

Opening the Readme file gives a good indication of the ambience of this interface: "This here file ain't got much in it." Start the thing up and you're in Bubba's shack. The moon is shining through the window, silhouetting the john in the backyard. On the desk in front of you is an ancient sit-up-and-beg typewriter (Windows Write), a pencil (Notepad), a hand of cards (Solitaire) and a few other things such as an ashtray (cough-cough), a can of Burpo beer (fart-fart) and a slice of ageing pizza (wait and see). Over yonder, sitting on the trash bucket, is a big, untidy pile of papers — yep, you guessed it, File Manager. Cue the kickin' country banjo music (crack the other can of Burpo) and crank up Terminal on the old wind-up telephone (how apt).

Then there's the television. I must confess I couldn't get this to do much, but it could have something to do with the bullet hole. The babe on the calendar gives a cheerful wave and a wiggle, and the armadillo (don't ask) in the corner dispenses useful "Bubba sez" tips for everyday life. Personally, I found these far more enlightening than Microsoft's Tips of the Day: "Don't fool with no snake nor no drunk"; "The richest man on earth don't wear but one pair of trousers at a time"; and, "They ain't no computer thet kin make a stupid man smart." All have a certain philosophical ring, and frankly, "You can quickly switch to other open applications by pressing CTRL+ESC to open the Windows Task List dialogue box", misses by miles.

And there are the bookshelves (Bubba reads books?). Here you'll find tomes like DOS Prompt and Ctrl Panel, as well as some for your own applications. Though somewhat limited in features, I found it a refreshing change from my usual shell. As Bubba sez: "Tired of the same old pizza? Y'all try our cheese wiggles. They ain't good, but they's handy."

When you're tired of Bubba, y'all click on the Exit sign and watch a rather unusual (but harmless) way for a Windows application to close.

Latch 22

For a more serious approach I've been looking at the commercial program ,Latches for Windows. This comes in three versions: for home, professional or network use. Looking at the professional version, the range of what can be done is formidable. Not only can it apply restrictions to Program Manager and Control Panel, but it gets its hooks into File Manager too. Settings and restrictions can be configured user by user. Each user, who has to log in with a password when Windows starts, can have their own set of GRP and INI files too. So you can have a whole different desktop, and levels of access for everyone from the managing director to the janitor's dog. Although there's no individual directory protection as such, the system manager can disable "File/Properties..." and "Show Hidden Files" so, for instance, the user can't change a read-only file.

It's all very impressive, and offers similar facilities to Windows 95 for multiple users, but with a lot more security. For a start, you can't get around it by editing CONTROL, PROGMAN or WINFILE.INI. In a very clever bit of chicken-and-egging it rebuilds the INI files from an encrypted copy only after the relevant executable has started to load. It also pre-empts the screensaver so that only the logged-on user and System Administrator passwords are valid.

At present, there is one fatal flaw — but I'm not going to blow the whistle as that would be unsporting, and besides, as Latches is currently undergoing trials with the Ministry of Defence, I might be compromising National Security. Let's just say that anyone computer-literate enough to be reading this column should be able to disable the whole shooting match in a matter of minutes. However, in a secure networked environment SYSTEM.INI (whoops, sorry, there goes the country) would be kept behind a "firewall" so this wouldn't be a problem. Furthermore, having talked to David Biggins, one of the developers, I'm told that by the time you read this they will have cracked this problem on stand-alone machines as well.

He wouldn't tell me how (well, would you?), but basically, Windows will refuse to start if SYSTEM.INI has been tampered with. Many of you will doubtless have noticed that Windows is quite capable of refusing to start without any meddling on the user's part, so harnessing this great natural force seems a step in the right direction. For more information, get in touch with Rhea International (see *PCW Contacts* on page 259).

Doing a little cross-pollination from the column at the posh end of *PCW* (*Letters,* August issue), a letter from Alan Cox reassured me that I was not the only one clumsy enough to HIT THE CAPS LOCK key by mistake. He asked whether there was any way of disabling it, short of physical surgery. Well, I have good news and I have bad news: the good news is that there is such a beast; the bad news is that you have to buy a Microsoft Natural Keyboard to get it. One of the options in Control Panel is precisely this, and you have to double-tap the key to turn it on. It is not perfect, because you have to go back to Control Panel to disable the thing again, but it is useful.

Ten Top Tips for Windows

Starting Windows	It is an old chestnut but everyone forgets how to do it: so to change the Windows start-up screen, first catch your bitmap. It mustn't have more than 16 colours, or be more than 50K, and must be saved in RLE format, so you'll need a shareware utility such as Paintshop Pro. If you have a DOS badge on the sleeve of your anorak, exit windows and type: **copy /b win.cnf+vgalogo.lgo+newlogo.rle c:\windows\win.com** adjusting paths to suit. If you can't be bothered with all that, save the new logo as VGALOGO.RLE (back up the old one first), then use Setup (from DOS) to change your Windows configuration, then change it back again. This automatically rebuilds WIN.COM.
File Manager	To tile panes vertically, press Shift + F4.
Sounds	Assigning sounds to events can be fun but has its problems: it slows down program loading and can cause "Device in use..." problems when a multimedia application needs the soundcard to start.
Control Panel	You can save time by going straight to any item of Control Panel with the command line (or Progman Icon) **control.exe** *abc*.**cpl** *xyz* where *abc* is the name of the .CPL file (e.g. MAIN), and *xyz* is the name of the sub-section, if any (e.g. DESKTOP).
Program Manager	You can create an icon for Program Manager in itself — whatever title you give, it will replace "Program Manager" in the title bar when launched.
Task Manager	If you don't need this, you can get any program to run when you double click on the desktop or press Ctrl+Esc. Add **taskman.exe=***myprog***.exe** to the **[boot]** section of SYSTEM.INI and restart Windows.
Write	You probably know that double clicking in a word selects the whole word. But move the pointer to the left of the screen and it changes into an arrow: one click selects the line; a double click selects the paragraph. Hold down Shift, and the text from the insertion point (flashing vertical bar) to the end of the line, or paragraph, is selected instead. Control + click selects all.
File Manager	With the focus on the right-hand pane, typing a forward slash selects all.
First Aid Kit	When you first install Windows on a PC, take a floppy copy of the main .INI files before installing extra hardware or software. Subsequently, if things go terribly wrong, you can return to an "out the box" Windows installation by using the DOS commands to move the existing .INI files to a temporary safe haven, and using the originals.
Setup files	Sysedit.exe, located in WINDOWS/SYSTEM, loads WIN and SYSTEM.INI, CONFIG.SYS and AUTOEXEC.BAT (and more with Mail enabled) for simultaneous editing.

PCW Contacts

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