



# The PC in profile

Roaming Profiles allow your Desktop, Start menu and recent documents to be accessible from wherever you log on. Dale Strickland-Clark shows you how. Plus, a visit to Zero Administration.

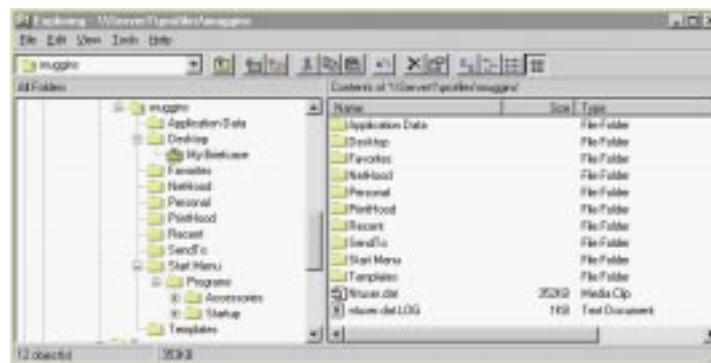
One of the great advantages of mainframe computers equipped with dumb terminals was that all the configuration information for each user was stored centrally. You could go to any terminal, log on and find yourself working with the same, familiar environment you had been using earlier, over on the other side of the office building.

PCs changed all that, and with the advent of Windows, the degree to which a user could alter the look of their PC could render it almost useless to anyone else. People tended to own their PCs in the same way they owned their desks and God help anyone who messed with your PC. Popping over to log on to someone else's PC was often unproductive. Network administrators spent the next few years trying to reproduce the effect of the dumb mainframe terminal so that users could log on anywhere, but enjoyed varying degrees of success (usually very little).

I'm a great believer in the black box PC in a business environment. All PCs are configured with the same standard software and as close as possible to a standard hardware configuration. The fewer differences the better. Then, if a PC loses the will to live or you need to change the office layout, you simply swap them around.

NT and Windows 95 give us the ability to avoid many of these configuration problems and enable us to treat the PC as a black box. Users can roam from workstation to workstation but still log on and pick up their own customised settings.

These settings are stored in a Profile, the use of which is optional with Windows 95 but standard on NT. However, to make a Profile available from any workstation, you



**Fig 1** A typical user Profile directory tree. This is what the system creates but you can add your own folders to extend your Profile

need to move it to a shared directory, probably on a server, and configure the user appropriately.

## What is a Profile?

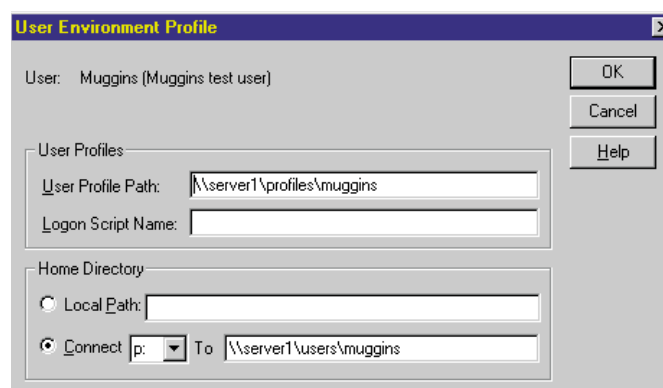
Your Desktop, Start menu, recent documents menu and many personal options are stored in a directory structure called your Profile (Fig 1). You find it by looking for a folder called "Profiles" off your Windows NT directory. Within will be a separate folder, created by the system for each user who has logged on to that PC. Within each of those, along with the Shell folders (Desktop, Start menu) you will find the files called ntuser.dat, which is the

user's Registry, and ntuser.dat.LOG. This latter is a transaction log for the Registry and provides fault tolerance.

Unless you tell it otherwise, NT creates a Profile for each user on each PC they use. But it won't follow them around and they will have to establish their preferences at each machine the first time they use it. New Profiles are always based on a copy of the Default User Profile on that workstation.

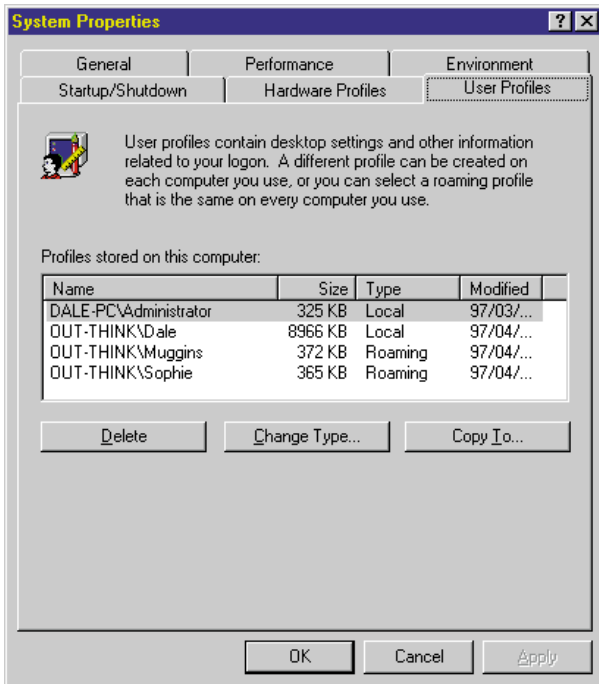
## Roaming Profiles

To make a Profile roam and be available to a user wherever they log on, you specify a User Profile Path (Fig 2) with the User Manager. The path should refer to a



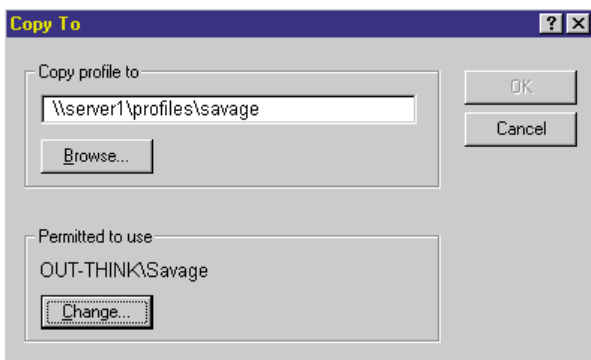
**Fig 2** To give a user a roaming Profile, you put the path to the Profile in the User Profile Path field. As long as the share exists (e.g. '\\server1\profiles') NT will do the rest. If this field is blank, the user will get a different local Profile on each PC

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**Fig 3 (left)** The System Properties applet shows all the local Profiles and cached roaming Profiles stored on the PC. Deleting a roaming Profile is harmless if it has been successfully copied back to the server, but a local Profile might be the only copy

**Fig 4 (below, left)** You can create a copy of a Profile as a backup, to copy a standard configuration for another user or to convert a local to a roaming Profile



location so you can pick out bits you're particularly keen to hang on to, or restore the whole thing from a backup.

Profiles *should* be kept small, but this is almost impossible to enforce because users like to store files on the desktop and there are distinct advantages to this for mobile users. Consider the

subdirectory of a share on a server. The share should already exist but the system creates the subdirectory tree when the user next logs on. Well, not quite: it creates just the root of the user's Profile when the user first logs on; the rest is copied from the workstation when they log off.

Each time they log on to a PC, the Profile is copied from the server to that PC where it is used as a cache for the duration of the session. When they log off, it's copied back to the server. The initial copying is skipped if the copy on the workstation is already up-to-date.

You really don't want to interrupt this copy back to the server (by resetting the workstation, for instance). It isn't performed in a fault-tolerant fashion and you could end up with a scrambled and unusable Profile. I've suffered from this more times than I can remember and, on each occasion, it was the `ntuser.dat` file that was damaged. If NT can't read this file when you log on, it ignores the whole Profile and creates a new one. The old one is retained in its original

load on the server, collecting all the updated Profiles, if everyone were to log off at the same time in the evening. Microsoft recommends not storing files on the desktop but using a Shortcut instead. This is at odds with Microsoft installing a Briefcase on every desktop by default. If your Briefcase is stuffed with files, your Profile will be large.

### Going mobile

On a mobile PC, the Briefcase is a useful tool for taking files away that you share with others, but if you are the only one who needs the file you can simply store it on your desktop or any other folder you create in your Profile. As long as the Profile on the mobile PC is up-to-date when you disconnect from the network, you can work on the file in the cached Profile. When you next connect to the network, the Profile will be updated, back on the server.

Watch out for the ways in which Windows 95 and NT treat Profiles. If your mobile PC is running Windows 95, it won't pick up your

## Book Reviews

### ■ Windows NT Workstation 4.0 — At a Glance

**Authors** Jerry Joice and Marianne Moon  
**Publisher** Microsoft Press  
**Price** £15.49

This primer is for the first-time Windows user. It begins by naming the objects you will find on-screen and dealing with important mouse techniques.



The authors have attempted to avoid technical jargon while covering those tasks users will need to negotiate daily. Each task is limited to a two-page layout, with plenty of screenshots and tips to accompany the numbered steps. There is sufficient information here to help even the most hesitant user make a start on their own, but even so, there is nothing more than you would find in the help files. It is not for the more confident or adventurous: they will be able to figure it out for themselves.

### ■ Working with Active Server Pages

**Authors** Michael Corning, Steve Elfanbaum, David Melnick  
**Publisher** Que  
**Price** £36.99

Active Server Pages (ASP) is a new feature of IIS. It greatly simplifies the job of web developers to build a dynamic web site without

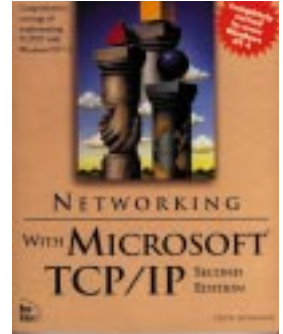


messing about with CGI scripts. It covers every angle of using ASP, starting with a quick look at IIS and how it sits on NT, through to writing VBScript, the ASP object model, and on to database programming. It's a well thought-out book which deals with subjects in a logical order. I would specially recommend the last few chapters on database programming and ActiveX Data Objects. The authors had some difficulty in containing their excitement over this new

data access technology and leave the reader in no doubt that this is an area to watch closely for developments.

### ■ Networking with Microsoft TCP/IP

**Author** Drew Heywood  
**Publisher** New Riders  
**Price** £41.49



This second edition (revised) covers NT4 and is as complete a volume on

TCP/IP as you're likely to find. It not only covers Microsoft's interpretation of this dominant protocol but also looks at the history and background, explaining why the protocol has evolved. Every possible component is covered in this NT-orientated book, including all the installable services like DNS, DHCP and WINS along with the console utilities such as PING, TRACERT and NETSTAT. An excellent book, and all most mortals will ever need on the subject.

NT Profile. Windows 95 Profiles are stored on the Home Drive as defined in User Manager and not in the User Profile Path.

### Management

You do not need to have hard and fast rules about the use of roaming Profiles. If users' needs change, it is easy to convert a Profile from local, to roaming, and back.

You can most easily achieve this from the PC where the local Profile is, or will be. When going from local to roaming, first make sure the user is not logged on and that you've updated the User Profile Path with User Manager to point to the server path where the Profile is to go.

Create the target top-level directory on the server (for example, \\Server1\Profiles\Savage), then open the System Properties applet (Fig 3) in the Control Panel (also accessible by clicking once on My Computer and pressing Alt-Return) and click on the User Profiles tab. Select the Profile on which you want to work and click the Copy To... button (Fig 4). Enter the path for the Profile and if necessary change the user with access permission to this.

Changing a Profile from a roaming one to a local version is simpler because it merely changes the state of the cached Profile on the PC to a static local one. Again, from the System Properties applet, select the Profile you wish to change, click the Change Type... button and check the Local option. There's no copying involved here but you might want to make sure the cached Profile is up-to-date by getting the user to log on to the PC before performing the operation.

Of course, there is far more to it than just setting up a few roaming Profiles to establishing the full ability of users to log on to any PC: you have to make sure the user's view of applications and data is consistent between PCs. This generally means that users must not store files on the PCs' local drives — also a requirement of the black box PC principle — and that if applications are installed on the PC, they are always installed in the same directories, or at least mapped to the same drives. If you install NT on your PCs from a common, preconfigured installation image, this should be automatic.

### Zero Administration

It's worth mentioning Microsoft's Zero Administration Initiative here because it extends the idea of the black box PC by making it possible to administer a PC without ever visiting it (which is where the "zero" comes from). It uses existing features like preconfigured Profiles and mandatory Profiles, and adds some attractive new ideas for automatic software installation on demand and remote problem diagnosis and resolution. The result is a PC which is much better able to look after itself but when it can't, demands less effort to fix.

The Zero Administration Initiative is not a product but a combination of tools and methodology, much of which will be in NT5 although you might need SMS (Systems Management Server) to administer other than NT5 workstations.

### PCW Contacts

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