Ways and means

Dale Strickland-Clark delves into the workstation and server versions of the latest Resource Kit for NT. Plus, where have all the drivers gone? There is a distinct lack of support for NT4.

I t is certainly a welcome break to work in a DOS-free environment and be relieved of the resource limitations of Windows 3.1. The distinction between high and low memory is a thing of the past and I am happily unconcerned with where a program happens to be located *in* the memory.

In one respect, however, I find myself looking back longingly at the good old days of one, dominant, PC operating system, and that is device drivers: at least you knew that whatever bit of hardware you bought, it would come equipped with a device driver for DOS. (Whether or not you could get it to work was another matter.)

Hardware manufacturers' lacklustre support for NT4 is becoming a serious irritation. I have just returned a Sony CD writer because there was no NT4 driver (nor any prospect of one for months) as well as a cheap sound card which claimed to be SoundBlaster compatible when it was not. I have also defied Hewlett-Packard's tardy attitude by getting its ScanJet 4P to work on NT4, even though there is still (at the time of writing) no official support.

Having returned the Sony CD writer, and to avoid any more nonsense, I decided to get the replacement from a specialist supplier, CD Revolution, which I hoped would have some expertise in the subject. I was relieved to discover that this is a company which knows its field, knew what I needed, and was sharp enough with its service to have the new device delivered to me by the following day.

The Philips CDD 2600 is now installed and working a treat. The sound card is being replaced by a pukka SoundBlaster and is accompanied by my renewed resolve to never again buy cheap kit.

Hewlett-Packard (HP) is a mystery. My guess is that it is the most successful printer manufacturer of recent years and probably sells more scanners than any other company, yet it has relied on Microsoft to write the NT4 drivers for its printers and is still palming-off ScanJet customers with useless NT 3.51 drivers.

A partial solution to scanning on NT4 is available from HP's web site in the shape of an updated DeskScan package. But DeskScan won't work without a decent ASPI driver (a standard SCSI interface for use by application programs), which HP does not provide. You are expected to raid Adaptec's internet site for that — except HP will not tell you that is what you need do. HP simply points you, unofficially, to a web page written by Guy Melendez, a man who has figured out his own solution and documented it for the rest of us (see www.windows-nt.com/tipsandinfo/sjonnt.htm if you need similar help).

However, Adaptec writes ASPI drivers as a service to its customers and it would like you to be using one of its cards before installing drivers. The SCSI card which HP includes with its scanner is made by NCR, not Adaptec.

HP tells me that it is working to resolve these issues and it is touching to observe that the recent changes to DeskScan have been made to get it to work better (or even work at all) on NT. But HP's efforts show a distinct lack of urgency.

Peripheral manufacturers know that if your need for their products is pressing enough, you will run Windows 95 instead of NT just to get the driver support. This is all the more true in a corporate environment where there is probably a spare PC knocking about, which you can push into

service as a dedicated scanner, CD writer or whatever system.

Even if you are not running NT at present, make sure the hardware you buy has full NT support so that your future OS options are not restricted. Furthermore, you should pester manufacturers of your existing hardware for NT drivers. Some companies are far too keen to let obsolete models slip out of their minds and off the end of their support schedules in the hope that you will just upgrade the hardware.

NT4 Resource Kit

The Resource Kit, an invaluable set of additional tools and reference material, accompanies each major release of NT. This time, for NT4, the kit is split into two: Workstation and Server versions, each accompanied by a CD-ROM. The server kit comes as three books presented in a box but the workstation edition, while not noticeably smaller, arrives as a single volume. Presumably, the server edition needs a touch of class.

These kits are worth it for the CDs alone (but do not buy both resource kits just for the CDs: the Workstation CD is only a subset of the server's). There are a good few hours of enjoyable rummaging and discovery to be had, and while some of what you will find has appeared before, there is a lot that is new.
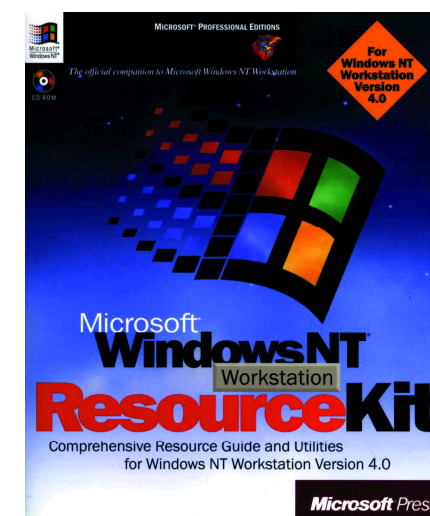
The two types of utility attracted my immediate attention. The first type allows the remote control of another computer on the network, and there are now at least three different ways of achieving that. The second utility provides you with virtual desktops — and this is something I have had to do without since I abandoned the quite wonderful PC Tools Desktop on
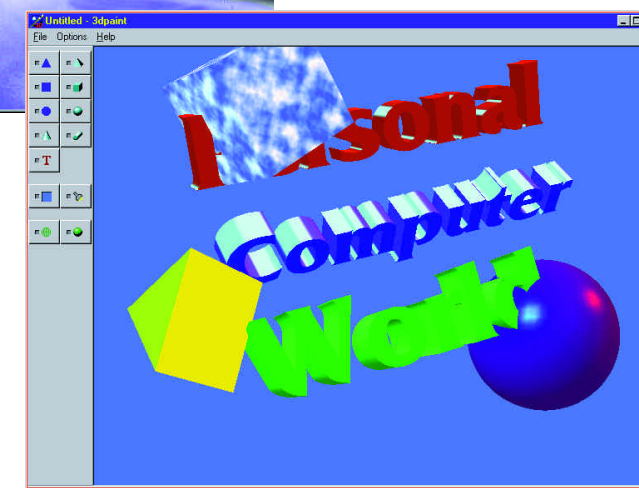
Windows 3.11 in favour of NT, quite some time ago.

Remote control of other PCs on the network, in particular the servers, is essential if you want to avoid traipsing around the building whenever a bit of administration is required. One solution is the Telnet service. Using any Telnet client, simply connect to the server on which the service is running and respond to the traditional TTY-style logon sequence. You are then in a fairly standard console session, although lacking the niceties such as command recall.

Although this approach limits you to console commands, you do have the advantage of connecting from anywhere in the world (given a suitable internet connection, of course) using readily-available client software.

Unfortunately, this Telnet service is buggy and crashed whenever I closed the session. And, it does not install using the

Above Tucked away in the Resource Kit is a strange 3D drawing and rendering program. Nice results are achievable with a little patience — evidently, patience is lacking here

files provided. You will need to go to the FTP site given in the documentation and get an updated .inf file.

The Remote Command Service is a better alternative for most situations. Again, a service installed on the server handles client requests and returns responses. It will run either a single command or, if none is specified, create an interactive console session. This is a very useful tool. A NET SHARE command executed remotely is the only way I can think of to create a share on another PC from within a batch file.

However, neither of these approaches properly deals with the problem of starting windowed applications, which will start quite contentedly yet run completely out of reach and not announce themselves on the host's desktop — you just have to be careful not to start any in the first place.

Multiple (or virtual) desktops are a very nice way to organise your work, keeping appropriate tools together and accessible when you are working on related tasks. To some extent you can meet this requirement with thoughtful use of folders but there is no tidy way to switch from one task to another and back again without a lot of fuss. Multiple desktops should meet that requirement.

In the Resource Kit, there are three attempts to address this need and they are all rather disappointing. Desktops (which also seems to be called "Multidesk") looks the most promising but that is probably because it is the only one that seems to understand NT4.

On initialisation, there is a flurry of activity while it starts another copy of all the programs in your StartUp program group for your new, alternative, desktop. Although this introduced a resource overhead, it did suggest that the two desktops might be properly isolated. This misconception lingered until Exchange tried to tell me that I had a new mail message, whereupon both copies of the Exchange client I had running (one on each desktop) promptly hung. Attempts to kill them and restart just one, with and without Desktops running, failed so I had to reboot.
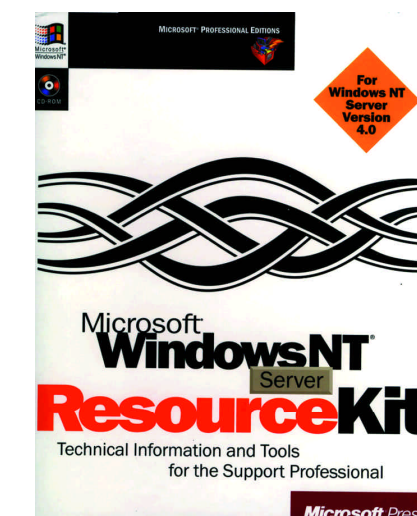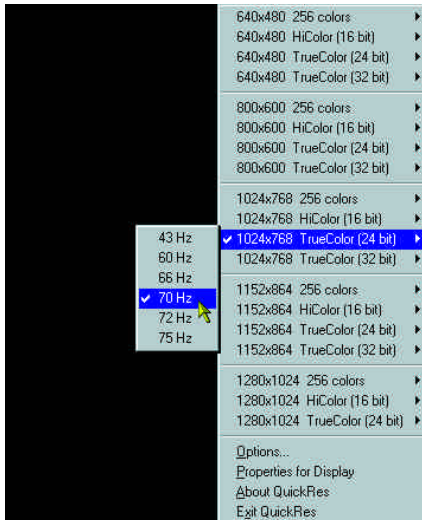

The one fat volume for the workstation Resource Kit might have benefited from being divided into two, purely to avoid damage to the reader. Price: £64.99 (incl. VAT)

The server Resource Kit is in three volumes: Server Resource Guide, Server Networking Guide, and Server Internet Guide. Price: £140.99 (incl. VAT)

Above First seen in the Windows 95 PowerToys, QuickRes now graces the NT desktop
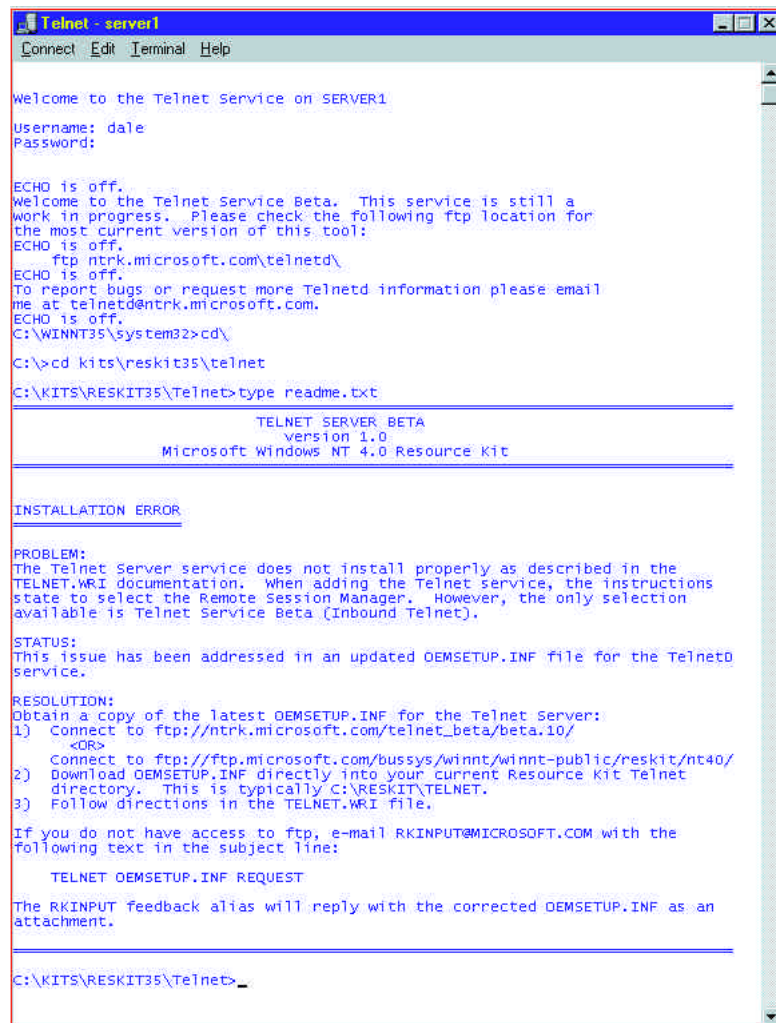
Nevertheless, Desktops continues to tempt me. It is easy to add more desktops and it is simple to use. I might have discovered more about it had the DESKTOPS.WRI file been on the CD like the help file promised, but it was nowhere to be found.

I could not get any sense out of Vdesk. Ctrl-F2 took me to my second desktop, just as it should, but there was nothing there except my wallpaper and no way to start any applications. The documentation shows how to set up the Registry to allow programs to start automatically but it seems like an awful lot of fiddling about — this is obviously a propeller-head's tool. And although it claims to allow the different desktops to log on as different users, which would be very convenient, I was unable to get it working.

There is a broad selection of console utilities that enable you to obtain information about users, groups, disks and security, in convenient forms for piping into further stages of a batch routine, as well as a nice little program called SOON which schedules a command to execute a number of seconds in the future.

SOON is a gift for anybody who likes to write self-retrying routines. For instance, if a batch command finds that it cannot continue for some reason, perhaps because a resource is in use, it can simply reschedule itself to try again later.

There are more performance monitoring and analysing tools than you could ever hope to use, including a version of Crystal Reports for scrutinising the event logs (this

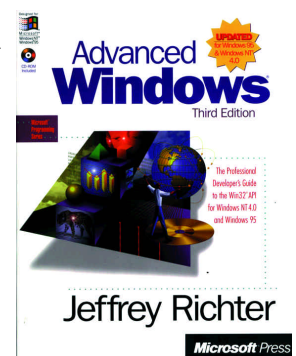## Advanced Windows (Third Edition)

The author visits this subject for the third time, updating it for the latest versions of NT and Windows 95. And, for a change, the title is apt. This is how to program Windows for people who have already been doing it for a while but are now tackling more adventurous projects. The book is over 1,000 pages long and comes with a CD-ROM.

Richter discusses synchronisation, memory management, exception handling and more, having first covered some groundwork in memory organisation, processes and threads. There are clear diagrams and many lengthy examples (too lengthy, really) which illustrate the text.

Some of the subjects are complex, but even though the author has a clear style and explains them well, you should be prepared to start from the beginning if you want to make sense of the remainder of the book.

The CD includes multimedia demos of all the sample programs as well as a nauseating advertisement for Mr. Richter's training services.

Author Jeffrey Richter
Publisher Microsoft Press
Price £46.99
Available from Computer Manuals 0121 706 6000

is on the Server CD-ROM only). However, in my opinion, the whole thing is made worthwhile by the overdue appearance of QuickRes. At last we can change our screen resolution and colour depth in a couple of mouse-clicks.

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