

**Andrew Ward** wonders whether NT's new **routing capabilities** can cut the mustard.



# hands on windows nt

come across — see panel, above) and whenever installing or re-installing RAS, go to the Services control panel and disable the Remote Access Autodial Manager. I am currently investigating the possibility that the Windows CE services themselves also generate off-network traffic, and I will report back in due course.

## ■ Changing drives

Linda Davies has asked what ought to be an easy question. How does she go about changing the hard drive on her system? It sounds easy, but there's no obvious way to go about this procedure under Windows NT.

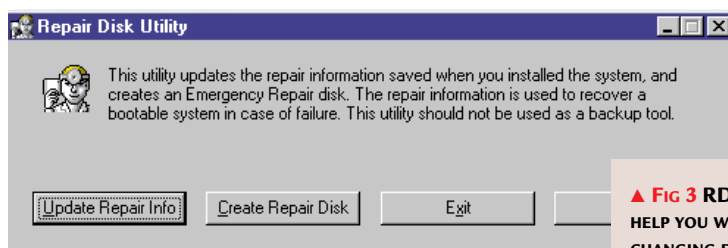
The most obvious answer seems to be to remove the old drive, insert the new one, install Windows NT and recover all data and applications from backup.

There are two problems with this. Firstly, it means having the system out of action for a considerable period of time while Windows NT is reinstalled; and secondly, the system is not equipped with a tape drive. Why is that important?

Megabytes of system, user and application configuration information are stored in the registry, so it is vital to recover the system registry as well as the other disk files. The NTBackup program supplied with Windows NT

will only copy the registry to and from the local machine. Here, Linda's machine is backed up across the network by a system elsewhere on the network, which has a SCSI tape drive.

When attempting to backup or recover the registry from tape using NTBackup, note that you have to also



▲ **Fig 3 RDISK CAN HELP YOU WHEN CHANGING DRIVES, BUT THERE ARE EASIER WAYS**

backup or restore at least one file from or to the system drive (the drive where the registry files are stored by Windows NT). Otherwise, NTBackup doesn't even show the dialog box where you get the chance to restore the registry. Seagate Backup Exec leads you to believe that it is possible to back up the registry, and it says nothing about not being able to carry out this operation across the network. But of course, it can't, so neither is that a solution.

By the way, if you ever do need to reinstall Windows NT before recovering from backup, make sure you also install the latest service pack, too. There have been instances in the past where changes

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made in a service pack have rendered tapes written after the service pack was installed (that is, when you took the backup) unreadable by

a system without the service pack (that is, when you have just reinstalled NT on the new hard drive). If you use a third-party product like Seagate Backup Exec, that may well require a minimum service pack level, anyway. So, while the restore operation obviously will bring you up to the latest service-pack level, you almost

certainly need to apply it first in order for the restore to happen successfully. There are a few ways to back up the registry across the network. The first uses RDISK [Fig 3]. When you run the RDISK utility, which is intended for creating emergency repair disks, one of the options backs up your registry information to the hard drive. Select Update Repair Info, and RDISK will store compressed copies of your registry in the \repair folder in your Windows directory. These can then be copied across the network onto another drive, just like any other files, or backed up across the network onto a tape. Indeed, a normal full tape backup operation would copy these files automatically.

**Alternatively, you can** actually make an emergency repair disk, boot from the Setup disks, select the Repair option and then choose the menu option to restore the registry. This only works if your registry is actually small enough to fit on a floppy disk (mine certainly isn't). The first step, whichever approach you take, is to ensure that the repair files are up to date, by running RDISK. This operation should be part of your regular system maintenance anyway. Note that RDISK does not, by default, back up user account information. If you want this backed up, you need to run RDISK with the undocumented /s option. However, if you use the command RDISK /s then RDISK runs immediately.

**But using this technique,** you still face the problem of recovering the registry from the files that RDISK saved. There's no easy way to do this. Expanding the files requires the use of the program EXPNDW32.EXE, which only comes with the Resource Kit. Once expanded, you will need to copy the files to where Windows stores the registry files, which is in the folder:  
`%systemroot%\system32\config`  
And in any case, you cannot do that

## SUMMERTIME BLUES

**G**ary Powell poses an interesting question. When does Windows NT actually implement British Summer Time? Does it follow the rules, and actually change at 0200 in the morning? If so, Gary wonders what happens if you have set the scheduler to run a task at exactly that time. Does it run twice when the clocks go back? Does it get omitted altogether?

A very interesting question, Gary, but I'm not sure I want to stay up until 2am at the end of October to find out the answer. Does anyone else know what happens? What beats me, incidentally, is how citizens of the USA manage to use the scheduler at all, since it uses the 24-hour clock.



[FIG 4]

### Output for creating NT users

```
NET USER triley password01 /ADD /COMMENT:"Information Services" /COUNTRYCODE:0→
/EXPIRES:NEVER /FULLNAME:"Toby Riley" /HOMEDIR:\\SERVER\TRILEY$ /PASSWORDCHG:YES→
/SCRIPTPATH:NETLOGON_FILE.BAT
NET USER ajones password01 /ADD /COMMENT:"Collections" /COUNTRYCODE:0 /EXPIRES:NEVER→
/FULLNAME:"Andy Jones" /HOMEDIR:\\SERVER\AJONES$ /PASSWORDCHG:YES /SCRIPTPATH:→
NETLOGON_FILE.BAT
NET USER jbloggs password01 /ADD /COMMENT:"Underwriting" /COUNTRYCODE:0 /EXPIRES:→
NEVER /FULLNAME:"Joe Bloggs" /HOMEDIR:\\SERVER\JBLOGGS$ /PASSWORDCHG:YES→
/SCRIPTPATH:NETLOGON_FILE.BAT
NET LOCALGROUP "Information Services" triley /ADD
NET LOCALGROUP "Collections" ajones /ADD
NET LOCALGROUP "Underwriting" jbloggs /ADD
MD D:\HOME\Triley
MD D:\HOME\Ajones
MD D:\HOME\Jbloggs
NET SHARE triley$=D:\HOME\TRILEY /UNLIMITED /REMARK:"Toby Riley's Home Directory" /Y
NET SHARE ajones$=D:\HOME\AJONES /UNLIMITED /REMARK:"Andy Jones's Home Directory" /Y
NET SHARE jbloggs$=D:\HOME\JBLOGGS /UNLIMITED /REMARK:"Joe Bloggs's Home Directory" /Y
CACLS D:\HOME\TRILEY /E /R EVERYONE
CACLS D:\HOME\AJONES /E /R EVERYONE
CACLS D:\HOME\JBLOGGS /E /R EVERYONE
CACLS D:\HOME\TRILEY /E /G ADMINISTRATORS:F
CACLS D:\HOME\AJONES /E /G ADMINISTRATORS:F
CACLS D:\HOME\JBLOGGS /E /G ADMINISTRATORS:F
CACLS D:\HOME\TRILEY /E /G TRILEY:C
CACLS D:\HOME\AJONES /E /G AJONES:C
CACLS D:\HOME\JBLOGGS /E /G JBLOGGS:C
COPY "D:\HOME\LOGINSRIPTS\Information Services\*.*)" "D:\HOME\Triley"
COPY "D:\HOME\LOGINSRIPTS\Collections\*.*)" "D:\HOME\Ajones"
COPY "D:\HOME\LOGINSRIPTS\Underwriting\*.*)" "D:\HOME\Jbloggs"
```

→ Denotes that the line of code continues

▲ FIG 4 SAMPLE  
SCRIPT CREATED BY  
TOBY RILEY'S EXCEL  
MACRO

while Windows NT is running: you have to install a second copy of NT, boot from that and restore the files. Indeed, another way of backing up the registry is by installing a second copy of Windows NT on the same drive but in a different directory. When you boot from the second copy, the registry files of the first copy are accessible just like any other files. This is probably the easiest solution and the least likely to go wrong, although it might not be the quickest.

In summary, our procedure will look like this:

- 1 Install** a second copy of Windows NT to the hard drive.
- 2 Backup** the entire system (including the registry files but excluding the second copy of Windows NT) across the network to a tape drive or hard drive.
- 3 Fit** the new hard drive. Install a copy of Windows NT but to a different directory name than was used previously.

**4 Then use** this copy of Windows NT to restore from the backup that you took earlier.

#### ■ Automating new users

Toby Riley has very kindly sent me an Excel macro which he uses to automatically generate all the commands you need in a script to set up a new-user account. This greatly simplifies the work needed to set up new accounts. I have put the spreadsheet on our cover-mounted CD-ROM this month and you will find it under "Create NT Users.xls". An example of what the output looks like is shown above [Fig 4]. You can, of course, tune this to your own requirements.

This spreadsheet may well be what P. McLaughlin is looking for. He (or she) wants to know whether there is a utility to export and import the user account information from the SAM (Security

Accounts Manager), so it can check the names against an existing database of users. Well, not as far as I know, although someone might have written a third-party add-on. However, using a macro such as this, the existing database can be used to populate a spreadsheet and hence a script file.

All you have to do when adding a new user is to type in the user's name and department and the Excel table is then automatically populated with the individual script lines. In Toby's version, clicking on a button drives a macro which then copies all these lines into a spare Excel sheet in a format ready for cutting and pasting into a script file.

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