Configure it out

Bob Walder takes us on a step-by-step guide to getting your PCs talking to each other.

We have covered some pretty advanced stuff in the past couple of months, but the majority of email queries I receive still dwell on one important topic – how to get two computers talking using Windows 98 and a pair of network cards.

I will refer you to previous columns where we discussed the various cabling options available, rather than go into it all again here in detail. Just to recap, however, you have three options depending on which type of Ethernet card you have in your PC:

- **10-Base2/Thin Ethernet** – You need a length of co-axial cable, two T-pieces and two terminators. Put a T-piece and terminator on the connector on the back of each card, and connect the cable between them. More PCs can be added by breaking the chain and inserting a new cable and T-piece. The terminators should be at each end of the cable run.

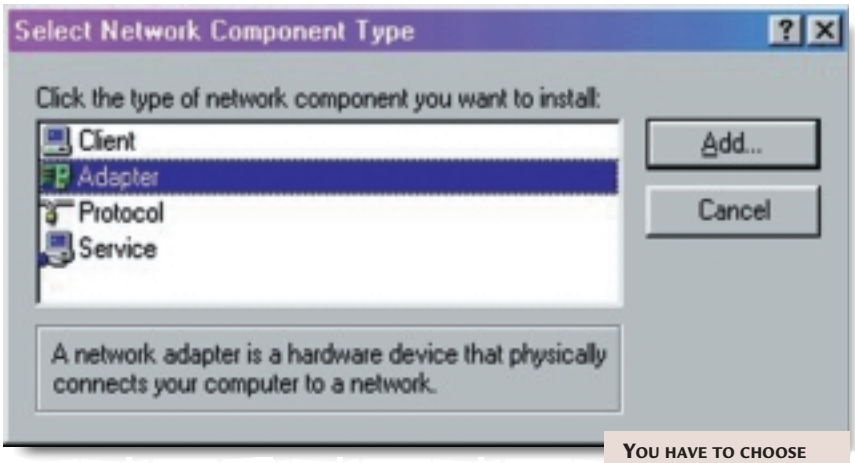
- **10-BaseT and a hub** – You need two pieces of UTP cable (Category 5 preferably) to connect each PC to a spare port on the hub. More PCs can be added by attaching new ones to the hub.

- **10-BaseT with no hub** – You need one UTP crossover cable, which connects the two Ethernet cards together directly. No hub is required, but your 'network' is limited to two PCs.

OK, so that's the cabling bit out the way. Next we need to make sure you have everything configured correctly. The first thing you might want to do if you have tried and failed is remove the network card from your Control Panel Network settings (just to allow you to start from scratch), and restart your machine. Once your machine has re-booted:

1 Click on the Network icon in the Control Panel again, and on the Configuration tab, click the Add button.

2 In the Select Network Component Type dialog box, double-click the type of component to install, as described in the screenshot above. We are going to begin by adding our Adaptor.



YOU HAVE TO CHOOSE FROM THE LIST OF NETWORK COMPONENTS

3 A two-pane window will then appear with a list of manufacturers on the left, and a list of the network card drivers on the right. Select the appropriate manufacturer, then select the appropriate network card, and then click OK.

If, however, you have a driver disk which was supplied with your network card, you are better off using those drivers. In this case, you will click on the 'Have Disk' button, and browse the floppy disk looking in the root or WIN98/WIN95 (or however it happens to be named) directory for a file with the extension .inf. Highlight this file, then click on OK and you will be presented with a list of all the network card drivers that are on the disk.

4 When you are returned to the Configuration screen, you should see the Ethernet card, Client for Microsoft Networks, and IPX/SPX Compatible Protocol components. The Primary Network Logon should be the Client for Microsoft Networks.

5 On the Configuration screen, select the Client for Microsoft Networks and click on Properties. Ensure that the box Log On To Windows NT Domain is not checked, then check the Quick Logon box and click OK.

6 Select your Ethernet adaptor and click on Properties. In the Driver Type tab, ensure you are using the Enhanced Mode NDIS Driver. The Bindings tab should show a check box next to the IPX/SPX Compatible Protocol. You can ignore the Advanced tab for now, but the settings on the Resources tab should be changed (if necessary) to match those on your Ethernet card. This tends to be the trickiest bit of the whole procedure, since every network card is different. Some require you to set jumpers or DIP switches on the card, some allow you to make the changes in software, and some are fully plug-and-play. Whatever sort of card you have, you must determine what hardware settings are used (interrupt and I/O address range, for example) and ensure that the settings on this screen match what you have on the card. Your life will made be so much simpler if you have a machine with a plug-and-play BIOS and you buy a plug-and-play NIC to go with it – that makes everything just about as automatic as you can get it. Then click OK.

7 Presumably, you want to share disks and printers between your networked PCs, so click the File and Printer Sharing button, and check applicable boxes (if you are not sure check both). Click on OK, and you will see the File and Printer Sharing for Microsoft Networks entry on your Configuration screen.

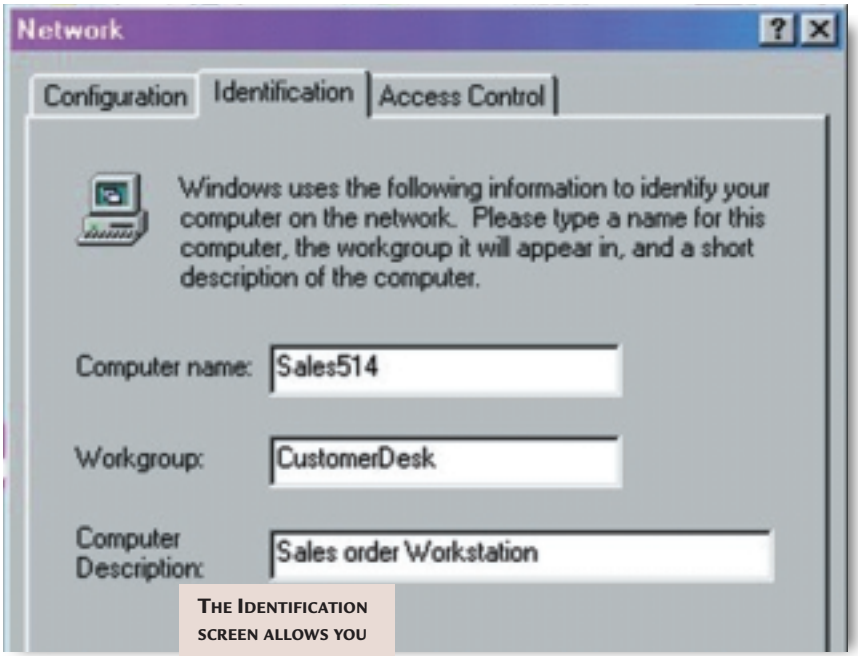
8 The network components are now all configured, so you can move on to the Identification tab (see screenshot, right). Windows 9x requires that you define a workgroup and computer name for each networked computer, independently of the type of networking software that you use. First, you give your computer its name. Keep it simple and not more than 15 characters and make sure that every computer on your network has a unique name – this is very important.

9 The default Workgroup name is WORKGROUP. You can leave this as it is if you are creating a network from scratch, but if you change it, you must ensure this is identical on every PC on your network. For those of you that are adding a Windows 9x client to an existing network, this should be the same as existing PCs.

10 The description field is purely for information – so do with it as you will. However, this field is displayed as a comment next to the computer name when users are browsing the network, so it might be helpful to put something descriptive in here, such as 'Bob's Computer in Accounts'.

11 Finally, go to the Access Control tab and ensure the Share-Level Access Control box is checked.

12 The configuration is now complete, so click on OK. You will be prompted for many disks or your Windows 9x CD-ROM at this point, following which you will then be asked to reboot your machine.



THE IDENTIFICATION SCREEN ALLOWS YOU TO NAME EACH NETWORKED COMPUTER

13 When it comes back up, you should be asked for a user name and password, and if creating your network from scratch, you can make these up (but whatever you do, please try and remember them!).

14 You should be able to browse the network using the Network Neighbourhood icon, and the workgroup you created should be visible, as should all Windows 9x clients in the same workgroup as your own PC.

15 We are almost there now. Even though you can see the other machines in your workgroup, you will not be able to do much with any of them until you have created some shares. Bring up the My Computer window and right-click on the C: drive. If your networking is functioning correctly, there will be a Sharing option on the menu.

17 Select Sharing, and click in the Shared As box. The share name will default to C, and you can leave it as this or give it a more descriptive name such as 'BOBDATA'.

18 Under Access Type, check the Full box. This is all that we need to do for now, since we are actually more interested in getting the network up and running than security to begin with. Next click on OK, and the icon for the C: drive will change to indicate that it has been shared.

19 Try to browse the drive from another PC in the same workgroup. If all goes well, you can repeat the process with other drives and printers throughout your workgroup.

A HUB ALLOWS YOU TO EASILY ADD EXTRA PCS TO YOUR NETWORK

PCW CONTACTS

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