Configuring Workstation Network Interface Controller Cards Windows 2000

Disclaimer
This procedure is an optional method of troubleshooting network connectivity problem. It is not recommended or required for use by anyone that does not have the knowledge, tools, or the skill level to perform it.

Purpose
This procedure outlines the steps necessary to configure a workstation Network Interface Controller card to support the IP protocol. The examples in this document are from a Microsoft Windows 2000 workstation.

Computer (Client) Prerequisites
A NIC card installed and driver software installed. Active network connection into a working IP network.
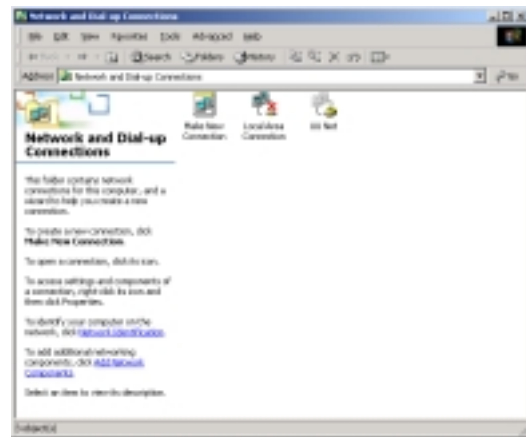
What is a NIC card?
NIC stands for Network Interface Card. A NIC card enables clients the ability to physically connect a computer to a network cable. NIC cards require NIC software drivers to be loaded on the PC to run.

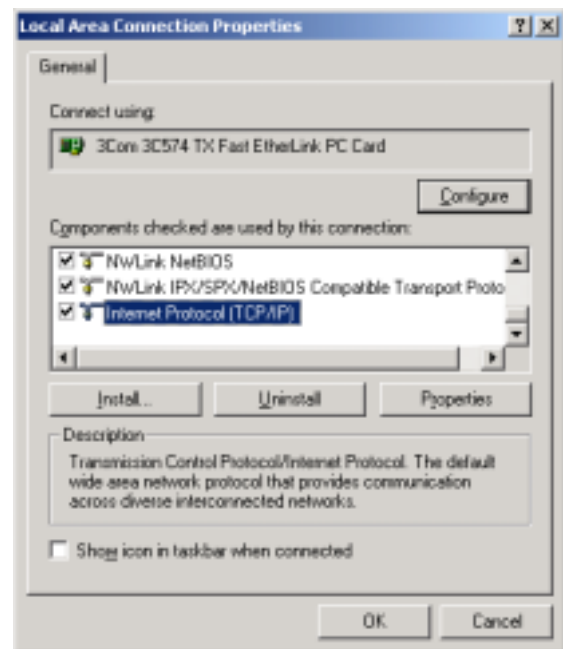### NIC card installation and configuration
NIC cards and NIC software drivers should be installed and configured per the manufacture specifications.

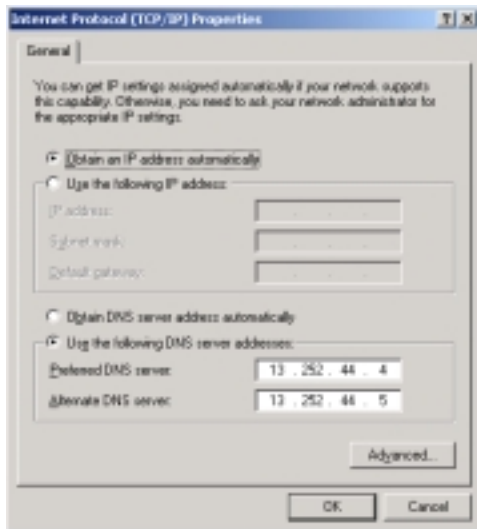### Configuring the IP address on the workstation
Right click on network Neighborhood and select properties.

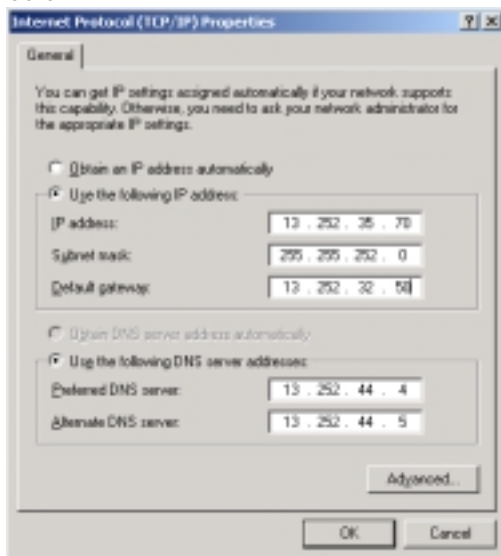From the screen displayed above right click Local Area Connection and select properties.

Use the scroll arrows to select Internet Protocol (TCP/IP). Click the Properties button to display the adapter properties.

The adapter is currently configured to obtain an IP address automatically. This configuration uses the DHCP protocol and requires a DHCP server on the network to supply the workstation an IP address.

Configuring the Adapter for static addresses

To configure the workstation network adapter for a static IP address follow the procedure below.

Click in the "Use the Following IP address" radio button then.

- ❑ Provide a IP address
- ❑ Provide a Subnet Mask
- ❑ Provide a Default Gateway

Enter the Domain Naming Service server addresses if required. DNS will be required for
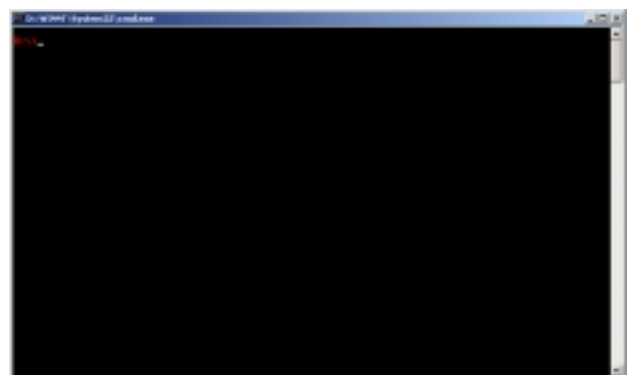
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Machine Host naming resolution, for example if the computer one is attempting to reach uses DNS and has a Host name associated with it. The user could search using the Host name; entering the IP address would not be required.

Click on the IP address tab and select either obtain an IP address automatically or select specify an IP address. When the specify button is selected an IP address must be entered. Enter the IP address needed to conduct network testing. Enter the correct network subnet mask for the network being tested.
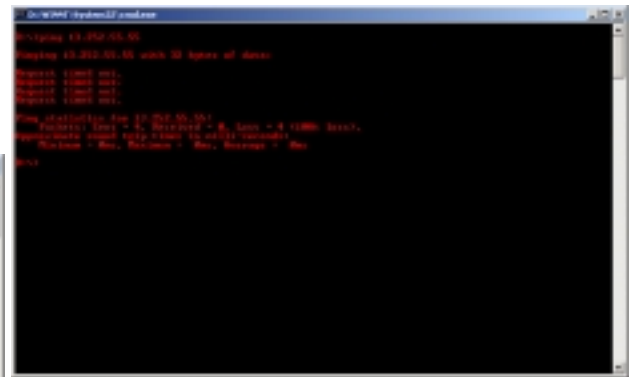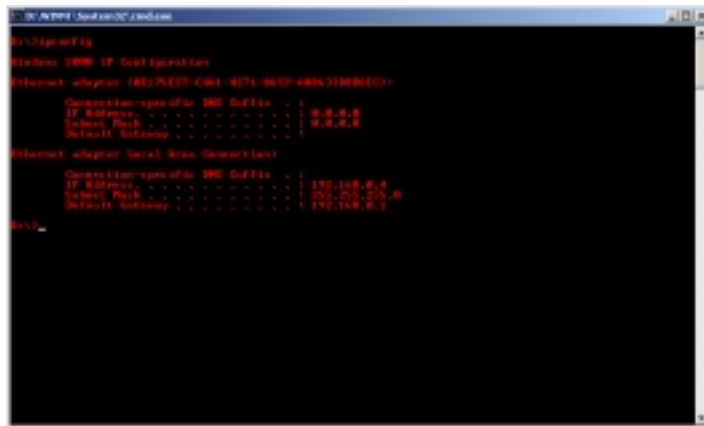
After the network interface controller is configured the workstation may require a reboot to bind the protocol to the interface.

Testing the network configuration

To test the network controller open the MS-Dos prompt. This can be done by entering the following; Start > Programs > Accessories > Command Prompt or by Start > Run and typing the following in the window CMD. The command prompt window will display as below.

To display the workstation IP configuration type the following in the display. Type ipconfig and press the enter key.
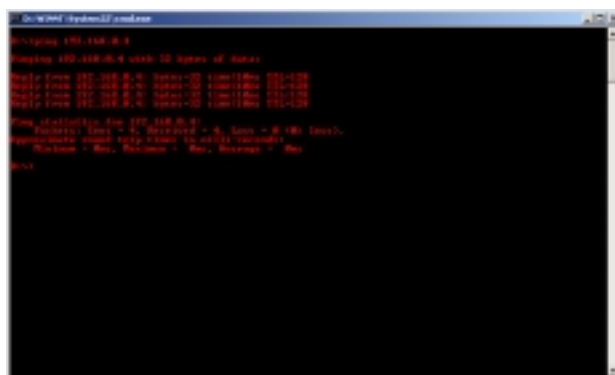

The workstation IP configuration is displayed in the screen above.

Testing IP communications with another network device

To test communications with another device on the network use the command prompt. Obtain the IP address of the other device on the network. Type ping xxx.xxx.xxx.xxx, where xxx equals the IP address of the other network device.

The screen above displays replies from the remote workstation being pinged.

The display above indicates the remote workstation cannot be reached.