



Welcome to ResNet

We are excited to announce a new service targeted directly to the student living on campus. ResNet lets you connect your personal computer- when equipped with a 10/100BaseT or 10BaseT Ethernet adapter- directly to UNCW's data communications network and to the Internet. ResNet is a student based support service offered to the on-campus student body. An RCA (Resident Computer Assistant) is a student employee of Client Services who will support the Ethernet network connection in your residence hall room. If you cannot successfully connect and register your computer to the University network, an RCA will help you. You will need to know the type of computer you have and be able to give a brief description of your problem. If the RCA cannot help you solve your problem over the phone or via email, they will schedule an appointment to come to your room. If this is the case, the RCA will be wearing a ResNet shirt and have their UNCW ID to show you upon request. If it is a simple thing such as adjusting the communications software, the RCA will do this for you. If the connection in your wall appears to be faulty, the RCA will report it for you so it can be repaired. Assistance from a ResNet RCA is provided at no charge.

If, however, a hardware problem beyond your network connection is identified, the RCA will not attempt to repair your computer. You may call the Computer Store on campus or a local business that offers computer repair services.

Being connected to the University network enables you to perform many task from your own computer. Some of these are:

- Exchange e-mail
- Browse and publish information on the World Wide Web
- Access campus information, course registration, library catalogs and other databases
- Submit assignments to professors, classmates, conduct research papers
- Participate in electronic groups (mailing lists and newsgroups)

Our goal is to provide quick positive service in support of your network connection. We hope you enjoy a trouble free connection and the access and service ResNet provides! Check out our FAQ section (<http://www.uncwil.edu/dcs/helpdesk>) for any questions you may have.

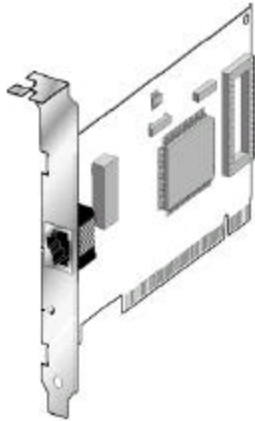


Fig. 1.1 UNCW uses 10BaseT Ethernet for ResNet. Make sure that any Ethernet adapter you buy supports 10BaseT.

Installing the Ethernet Adapter and Cable

In order to connect to ResNet, you'll need a computer that is Ethernet capable. For most computers, you'll need to purchase, install, and configure an Ethernet adapter.

If you don't have an Ethernet adapter, you can purchase one at the UNCW Computer Store located in the Bookstore. For more information or technical assistance go to the ResNet web site (<http://www.uncwil.edu/dcs/labs/resnet>) or contact either the ResNet Support Desk at ext. - 3826 or Client Services Help Desk at ext. - 4357 (HELP) (see the back cover.)

Follow the instructions that came with your Ethernet adapter on how to install and configure it in your computer. If you're not comfortable installing the adapter, ResNet staff will be happy to do it for you free of charge.

You'll also need an Ethernet cable to connect your computer to the wall jack. The UNCW Computer Store carries Ethernet cables. Use only cables rated for category 5 or 6 network use- do not attempt to use a phone cord.

Configuring Windows 95/98

Windows95/98 has all of the software needed to use your ResNet connection and connect to the Internet. This document describes how to set up Windows95/98 forTCP/IP access.

Before following the instructions below, make sure your Ethernet card has been installed correctly and your Ethernet cable is plugged into the correct walljack. Do not plug into your telephone jack.

To install the TCP/IP protocol under Windows 95/98, follow these steps:

1. Open the Control Panel and select Network

Open "My Computer" (Fig. 2.1 Note: the icon may have been renamed) and double-click on the *Control Panel* icon (Fig. 2.2).



From within the Control Panel, double-click on the *Network* icon (Fig. 2.3).

2. Confirm installation of your Ethernet adapter

The Network Control Panel will list the Network Adapters, Network Protocols, and Network Clients you have installed on your system. The specific configuration will be similar to the illustration in Fig. 2.4.

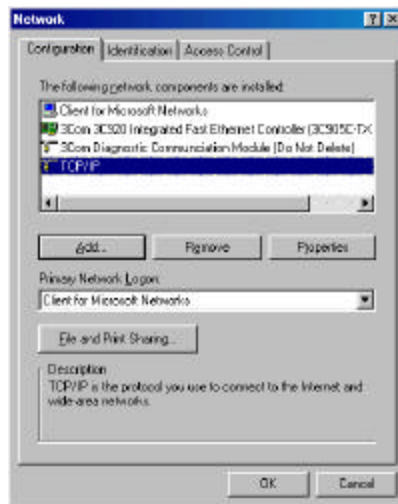


Fig. 2.2

In the list should be the Ethernet card installed in your computer. If it is not in the list, go to the "Help" section of the "Start" menu. Under "How do I," select "...set up hardware," and you will find the hardware installation wizard that can lead you through installing your network adapter card. Be sure to use the drivers from the disk(s) that came with your Ethernet card. (When prompted to select a driver, click on the *Have Disk* button.) The preferred drivers should be included with your network card.



Fig. 2.3



If you have Windows 98 or have used your computer to connect to the Internet before, there may be one or more lines of "TCP/IP" protocol listed in addition to your Ethernet adapter. **If TCP/IP is already present in the Network Control Panel, skip to Step 4.**

Fig. 2.4 The Windows 95/98 Network Control Panel with the TCP/IP protocol

3. Adding the TCP/IP network protocol

From the Network Control Panel, click on "Add."

You will be prompted to select the network component type you wish to add. Select "Protocol" and press "Add" to continue. Next, select the manufacturer and protocol that you want to add. In this case, the manufacturer is "Microsoft", and the protocol is "TCP/IP." Click "OK" to continue (Fig. 2.5).

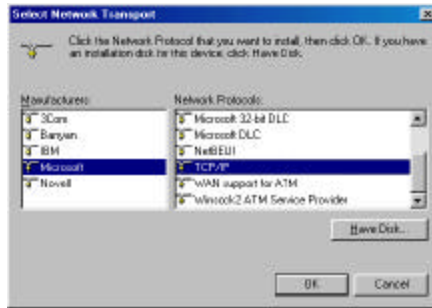


Fig. 2.5 Selecting Microsoft and the TCP/IP network protocol

You will be prompted to insert your Windows 95/98 CD-ROM or diskettes (unless you have a disk image on your hard drive), once you do this the appropriate TCP/IP files will be copied to your computer. When the file installation is complete, you will be returned to the Network Control Panel. The TCP/IP protocol should be present in the window.

For most users, this is all that is needed since the next step is the default setting for Microsoft TCP/IP. However, if you have used your computer to connect to the Internet before, please proceed to Step 4.



Fig. 2.6 TCP/IP Properties set to obtain address using DHCP

4. Confirming automatic IP selection

There are several TCP/IP properties that can be configured, but you only need to be concerned with one of them.

- Select the TCP/IP protocol line from the list.
Note: if you have a modem, there may be two TCP/IP protocols installed- one for the Ethernet adapter and one for the modem. Select the one associated with the Ethernet adapter.
- Click on "Properties" and the TCP/IP properties window will open. Under "IP Address," select "Obtain an IP address automatically" (Fig. 2.6).
- Press "OK" to save your entries.

5. Restart your computer

When you click "OK" on the Network Control Panel, you will be prompted to restart your computer. Select "Yes."

6. What now?

Once you have restarted your computer, you should be ready to run Internet applications such as a web browser or e-mail client.

To make sure you received an IP address, you can go to the "Start" menu, select "Run...," then type **winiipcfg**. This will bring up an IP configuration window (Fig. 2.7). Make sure your Ethernet adapter is selected. (If you have a modem installed, a PPP adapter or modem name may also be present. Be sure to select your Ethernet adapter from the pull down menu.) You should be able to click on "Release," then click on "Renew," and a number similar to "10.1.x.x" should appear in the IP address box. **Write down your adapter address- you will need this to register your computer.** Congratulations! You're connected to ResNet.

If you have "0.0.0.0" or "169.254.x.x" listed for an IP address or receive a message similar to "The DHCP server is unavailable," you do not have a completed Ethernet connection. There could be a number of reasons:

- your Ethernet adapter is not configured properly
- your software is not configured properly
- your Ethernet adapter is not connected to the proper data outlet with a working Ethernet cable
- your data outlet is not activated



Fig. 2.7 Successfully receiving an IP address from the DHCP server

The General Troubleshooting section of this guide on page 16 can help you determine the problem. If you are still having difficulty getting your computer configured you can check with a friend or floormate for assistance or you can contact ResNet for help. (See the back cover.)

Configuring Windows NT Workstation 4.0

Windows NT has all of the software needed to use your ResNet connection and connect to the Internet. TCP/IP is the protocol, or language, used by Internet applications. This section describes how to set up Windows NT for TCP/IP access.

Make sure your Ethernet card is properly installed and your Ethernet cable is plugged into the proper wall outlet. (See page 4.)

These instructions and example figures refer to version 4.0 of Microsoft Windows NT Workstation, but the procedures will be similar for other versions of NT. ResNet does not support Windows NT Server.

You must log on with administrative privileges before continuing with these instructions.

1. Installing the TCP/IP protocol

You may have installed the TCP/IP protocol automatically when you installed the Windows NT operating system. To find out, go to the Control Panel (from the "Start" menu or from "My Computer") and select "Networking." Choose the "Protocols" tab (Fig. 3.1).

If you've previously installed TCP/IP, it will appear in the list of installed protocols. If this is the case, you should skip to Step 2, "Configuring TCP/IP."

To install the TCP/IP protocol:

- Click on the "Add" button. Choose "TCP/IP Protocol" from the list.
- Insert the WinNT CD-ROM if prompted.



Fig. 3.1 The Windows NT Network Control Panel with TCP/IP installed

For most users, this is all that is needed since the next step is the default setting for Microsoft TCP/IP. However, if you have used your computer to connect to the Internet before, please proceed to Step 2.

2. Configuring TCP/IP

There are several TCP/IP properties that can be configured, but you only need to be concerned with one of them.

To configure the TCP/IP protocol:

- From the Network Control Panel, select the "Protocols" tab, highlight the TCP/IP entry and press the "Properties..." button.
- Check the "Obtain an IP address from a DHCP server" radio button (Fig. 3.2).
- A message will appear informing you that DHCP (the Dynamic Host Configuration Protocol) will be used to configure your workstation, but that you can override any settings you choose in this control panel.
- Press "OK" to close this dialog box, and close the Network control panel.

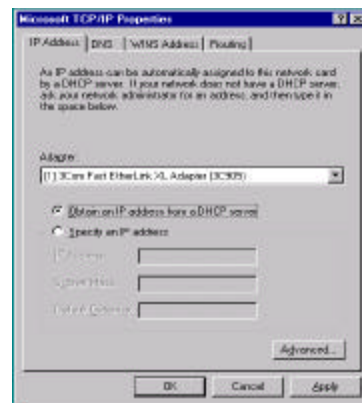


Fig. 3.2 Setting Windows NT TCP/IP properties to obtain an IP address from the DHCP server

You will need to reboot your computer for the changes to take effect. To make sure you received an IP address, go to the “Start” menu, select “Run...,” type **command** and click “OK”. This will bring up a DOS window. At the C:\> prompt, type **ipconfig /all** and press the Enter key (there is a space after ipconfig.) Notice the IP address. If it is not similar to 10.1.x.x, type **ipconfig /release**, press Enter then type **ipconfig /renew** and press Enter. This should release and renew your IP number. Type **ipconfig /all** again and **write down your Physical address- you will need this to register your computer**. Type exit at the C:\> prompt to close the window.

You should have an IP address similar to *10.1.x.x*. If you get an IP address of 0.0.0.0 you do not have a completed Ethernet connection. There could be a number of reasons:

- your adapter is not configured properly
- your software is not configured properly
- your Ethernet adapter is not connected to the proper data outlet with a working Ethernet cable
- your data outlet is not activated

The General Troubleshooting section of this guide on page 16 can help you determine the problem. If you are still having difficulty getting your computer configured you can check with a friend or floormate for assistance or you can contact ResNet for help (see the back cover.)

Configuring Windows 2000 Professional

Windows 2000 has all of the software needed to use your ResNet connection and connect to the Internet. TCP/IP is the protocol, or language, used by Internet applications. This section describes how to set up Windows 2000 Professional for TCP/IP access.

Make sure your Ethernet card is properly installed and your Ethernet cable is plugged into the proper wall outlet (see page 4.)

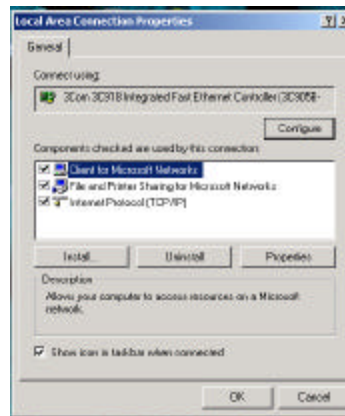
These instructions and example figures refer to Windows 2000 Professional. ResNet does not support Windows 2000 Server.

You must log on with administrative privileges before continuing with these instructions.

1. Installing the TCP/IP protocol

You may have installed the TCP/IP protocol automatically when you installed the Windows 2000 or when you set up a dial-up connection. To check, go to the Network and Dial-up Connections Control Panel. To do this, right-click "My Network Places" and choose "Properties." Right-click on "Local Area Connection" and choose "Properties."

If you've previously installed TCP/IP, it will appear in the list of installed protocols (Fig 4.1). If this is the case, you should skip to Step 2, "Configuring TCP/IP."



To install the TCP/IP protocol:

- Click on the "Install" button
- Double-click "Protocol"
- Double-click "TCP/IP"
- Insert the Windows 2000 CD-ROM if prompted to do so.

Fig. 4.1 The Windows 2000 Network and Dial-up Connections Control Panel with TCP/IP installed

Once you have installed TCP/IP, you will need to configure it. Step 2 tells you how to configure TCP/IP for use on ResNet.

2. Configuring TCP/IP

There are several TCP/IP properties that can be configured, but you only need to be concerned with one of them. To configure the TCP/IP protocol:

- From the Network and Dial-up Connections Control Panel (see step 1) right-click on "Local Area Connection" and choose "Properties" from the menu.
- Highlight the "TCP/IP" entry and press the "Properties" button.
- Check the "Obtain an IP address automatically" and the "Obtain DNS server address automatically" radio buttons (Fig. 4.2).
- Press "OK" to close this dialog box, and close the Network and Dial-up Connections control panel.

You will need to reboot your computer for the changes to take effect. You can confirm that you have obtained an IP address by executing the command **ipconfig** from a command line (see page 11.) **Be sure to write down your Physical address- you will need this to register your computer.**

You should have an IP address similar to 10.1.x.x. If you get an IP address of 0.0.0.0 you do not have a completed Ethernet connection. There could be a number of reasons:

- your adapter is not configured properly
- your software is not configured properly
- your Ethernet adapter is not connected to the proper data outlet with a working Ethernet cable
- your data outlet is not activated

The General Troubleshooting section of this guide on page 16 can help you determine the problem. If you are still having difficulty getting your computer configured you can check with a friend or roommate for assistance or you can contact ResNet for help (see the back cover.)

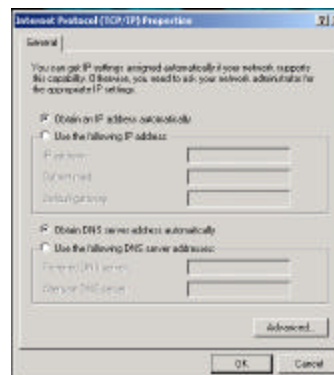


Fig. 4.2 Setting up Windows 2000 TCP/IP properties

Configuring Apple Macintosh Computers

Before following these instructions, make sure your 10BaseT Ethernet adapter has been installed correctly and your Ethernet cable is plugged into the correct wall outlet.

ResNet supports the Open Transport system level software. This allows your network applications (such as a web browser or e-mail client) to communicate with the network. Open Transport can run on MacOS System 7.5.3 and comes installed by default on System 7.6.1 and above.

Prior to Open Transport, the MacOS used MacTCP (sometimes referred to as "Classic Networking") for TCP/IP connectivity. ResNet no longer supports MacTCP. If your Macintosh is not running MacOS 7.5.3 or above you will not be able to connect your Mac to ResNet unless you upgrade it. Contact a RCA if you have questions about your operating system (see back cover for contact information.)

TCP/IP Configuration using Open Transport

ResNet uses the Dynamic Host Configuration Protocol (DHCP) to assign IP addresses. This is the default setting for the MacOS TCP/IP Control Panel; more than likely, you won't need to do anything to be able to access ResNet except plug in your Ethernet cable. To make sure:

Go to the Control Panel on the Apple menu and select "TCP/ IP" (Fig. 5.1).

- Select "Ethernet" from the "Connect via" menu. (Note: On some Macintoshes you will have to choose "Ethernet - alternative," "Ethernet -built in" or "Ethernet" followed by the slot number the Ethernet card is in. For example, "Ethernet B2.")
- Select "Using DHCP" from the "Configure" menu.

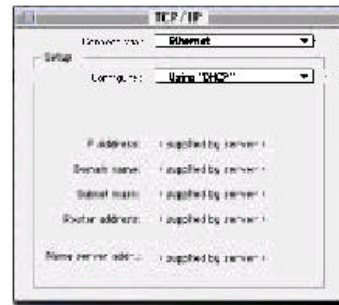


Fig. 5.1 The MacOS TCP/IP control panel set to use DHCP to obtain an IP address

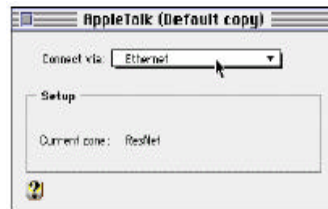
All of the parameters needed to configure your network connection will be supplied by the DHCP servers on the residence hall network. (Note: If you have spaces for a "DHCP Client ID" and/or "Search Domains," leave them blank.)

Close the TCP/IP Control Panel. If you are prompted to save the changes, do so. TCP/IP configuration is now complete. If you made any changes, you should restart your Macintosh before attempting to use TCP/IP applications.

Configuring your machine to use AppleTalk

AppleTalk is a network protocol that allows computers on a network to share information with each other. The Macintosh operating system comes with AppleTalk. However, Macintosh operating systems 8.6 and above can connect to file servers over IP. In Macintosh Operating System 9, AppleTalkstyle file sharing can be done over IP.

- From the Control Panels menu choose "AppleTalk" (Fig. 5.2).



- From the "Connect via" menu, choose "Ethernet." You may receive a warning message about switching from one networking type to another. Press OK. Close the control panel. If you are prompted to save the changes, do so.

Fig. 5.2 Connecting to Apple Talk via Ethernet

- Next, select "Chooser" from the Apple menu. In the bottom right corner, click on the "Active" radio button. A message will pop up saying, "Please make sure you are connected to an AppleTalk network." Press "OK."

The Chooser will now show the AppleTalk zones.

Configuring Linux

ResNet staff has limited resources available to support Linux.

Most Linux distributions provide all of the software you need to use ResNet to connect to the Internet. Because configuring every current distribution is different, we cannot provide instructions for all of them.

General Troubleshooting

If you are having trouble getting your Network connection to work, or if it suddenly stops working, the following are some general troubleshooting tips that may help you resolve the problem without needing a visit from a ResNet staff member:

- Restart your computer. Often this will fix the problem.
- Connect your computer to a known working datajack with someone else's working cable and restart your computer. If it doesn't work then it is a problem with your Ethernet adapter or configuration.
- Connect your computer to a known working jack with your own cable. If your computer works on that jack with someone else's cable but doesn't with your own, then your cable is bad and you need to get a new one.
- If your computer works on a different jack with your cable then the jack in your room is either not activated or not working. Call ext. - 3826 or ext.- 4357 (HELP) to report the problem.

Using other network protocols on ResNet

ResNet primarily uses TCP/IP, the protocol used on the Internet. However, the IPX and AppleTalk protocols are also allowed on ResNet.

NetBEUI, one of the protocols Windows uses for file and print sharing, is not recommended, is not officially supported on ResNet and is not routable. You will not be able to see most other ResNet computers in the Windows Network Neighborhood.

Note: Be very careful when turning on Windows file and print sharing since your computer becomes more vulnerable to hackers and viruses when you share resources

Acceptable Use of ResNet

Acceptable Use Policy:

The performance of normal UNCW business, research, education and other vital functions is dependent upon the appropriate use of computing resources. To maintain this limited resource, the conditions listed below are strictly prohibited.

- Any action that would impair the function of the network. This includes intentional or unintentional actions that affect the overall performance of the network.
- Any intentional or unintentional action that would deny or impair network service to another system or user.
- Operation of any server that makes high demands on the network. Servers must utilize a sufficiently small portion of the network resources and cannot violate any other policy or law.
- Any action that violates Federal, State or University policy or law.
- Providing service or distributing any product for a fee.
- Providing access to University resources to non-University affiliates.
- Provide a pass-through site to other campus host.
- Provide remote login on your computer for others than yourself.
- Monitor data on the network by means of any monitoring or “sniffer” software.
- Forgery or misrepresentation of one’s identity
- Any setup of a wireless network without official approval of ResNet.

The operation of any commercial or for-profit enterprise or advertising is prohibited, along with any re-sale of access or services. Illegal activities including, but not limited to, such practices as fraud, harassment, software piracy, and copyright infringement are also prohibited. In addition, IP spoofing, packet sniffing, virus distribution, or any activity that disrupts the network are violations of UNCW Computing Resource Policy.

The University reserves the right to place limited restrictions on the use of its computers and network systems in response to complaints presenting evidence of violations of university policies or codes, or state or federal laws. In most cases, violations will be brought to your attention with a phone call or email message. If the problem is rectified quickly, no further action maybe necessary. In some cases, it may be necessary to block network connectivity to your computer immediately. For this reason, we reserve the right to block network access to/from your machine WITHOUT warning.


Repeat violations will result in loss in network connectivity and referral to the dean of students.

Registering your Adapter Address

Be sure to register your adapter address during the first two weeks of school. **If you don't register your adapter address, you're connectivity will be limited.**

You can find your adapter address (also known as Physical Address in Windows NT and Windows 2000) by following the directions listed earlier in the booklet under your operating system. Go to the following web site and enter the requested information:

<http://www.uncwil.edu/dcs/labs/resnet/>



Register Your Adapter Address

Full Name	<input type="text"/>
E-mail Address	<input type="text"/>
Residence Hall Name	Select Res Hall <input type="button" value="v"/>
Room Number	<input type="text"/>
Phone Number	<input type="text"/>
Adapter Address	<input type="text"/>
i.e. 00-C0-3E-6F-05-04	
<input type="button" value="Register Your System"/> <input type="button" value="Clear Form"/>	

Please note: Your Adapter Address is the same thing as your Physical Address.

Getting Help

By Telephone

- **x - 3826** (ResNet Support Desk)
or
- **x - HELP** (x - 4357) Client Services Help Desk

By E-Mail:

- **resnet@uncwil.edu**

From the Internet:

- **<http://www.uncwil.edu/dcs/labs/resnet/>**

In Person:

- **Client Services Help Desk, ext. - 4357 (HELP)**
201 Hoggard Hall
8am-6pm, Monday-Friday
- **ResNet Office, ext - 3826**
Schwartz Lab
6pm-Midnight, Sunday-Thursday

ResNet and Client Services staff will be available during move-in on Saturday and Sunday, August 18 and 19 to help you get connected. *Look for the light blue shirts.*

*ResNet service is offered cooperatively by
ITSD's Client Services
and
University Housing.*