Installation Help Contents

How to...

Understand Network Concepts

After you install OnNet16, you can begin using it to simplify your day-to-day work. The applications for both DOS and Windows let you

- Share files with users at other computers.
- Access large multi-user computers, as though your computer were directly attached to them.
- Print files or mail on a network printer.
- Exchange mail or messages with coworkers, instead of sending paper memos.
- Protect your work by backing up files on your computer to a remote tape drive.
- Communicate over long distances by dialing up connections over a telephone line.
- Access the Internet, if your site is authorized.

For users who want to know how this product works, the following Related Topics describe terms frequently used in this and other networking products. If terms such as kernel and network interface driver are new to you, explanations in this section provide background that you can use to get started.

Related Topics

Networks and Network Operating Systems
Identifying Computers and Users on the Network
Clients and Servers
Kernels
Drivers
Working with System Files
Going Beyond Your Network

Also, see the *Advanced User's Guide*. If you do not have a printed copy of the book, you can install and use Reference Desk, an online version of the OnNet16 documentation.

Networks and Network Operating Systems

A network is made up of computers linked together by cables or telephone lines. For example, an organization may have many types of computers installed, with very different hardware and software. The network software helps hide many of those differences, so that you can work with a variety of computer types. OnNet16 contains the software that lets computers on a network exchange information and communicate with the other computers.

The hardware that connects computers in a network works according to defined standards. This product supports most of the standards on the market today, including Ethernet, token ring, serial lines, and AppleTalk.

A wide area network, or WAN, can span cities, states, or continents. A local area network, or LAN, is a network that occupies a smaller geographic area, such as an office or campus. A LAN may be divided into several smaller segments called subnets, connected by devices called routers or gateways.

Software that controls computers on a network is called the network operating system (NOS). Some examples include Banyan VINES, Microsoft Windows for Workgroups, and Novell NetWare. Although OnNet16 is not really a network operating system, it does provide the most significant features that network operating systems provide, such as file sharing and printing.

Identify Computers and Users on the Network

A network is made up of connected computers, called hosts. The term local host usually refers to your own computer. You typically attempt to reach a remote host, or another computer on your network.

Each host has an address that you and the software can use to identify it. In a TCP/IP network, the address, which is called an IP (Internet Protocol) address, is written with four groups of integers separated by dots (.), such as 128.127.55.154. The groups of numbers identify the network, subnet, and host portion of the address.

OnNet16 lets you link the numeric address to an easier hostname. For example, the computer with the IP address 128.127.55.154 might have the hostname Hobbes. You can connect to it using either its IP address or hostname.

A hostname also consists of fields separated by dots. Each field further defines the host. For example, with the hostname Hobbes.xyz.com,

This field	Identifies
Hobbes	The hostname. The name assigned to one computer.
xyz	The subdomain. The name of the hosts immediate network domain, which identifies the organization that operates the network.
com	The domain. The largest domain to which the host belongs. Typically, domain names identify the type of institution to which the host belongs, for example, an educational (.edu), commercial (.com), or military institution (.mil).

In addition, people who are using computers on the network have their own user IDs. If you want to send mail to someone, you must address it to their user ID.

Clients and Servers

Once you install OnNet16, you can begin to use it if you know names and addresses of servers.

In most cases, your computer is a client of the servers. For example, certain computers on your network (remote hosts) might act as FTP (File Transfer Protocol) servers. You can use the OnNet16 FTP client program to connect to these remote hosts and copy files to and from the computer. Other or the same computers might act as LPD (print) servers. You can use the Print Client program to print on printers attached to the remote host. Some of these server programs run continuously on the remote host and you can access these services whenever you want. Users at other remote hosts might briefly activate a server to let you exchange files or use the printer attached to their computer. You can use OnNet16 server programs to share files on and printers attached to your computer.

Server

Host computers that provide services to other hosts on the network, that is to the servers clients.

Kernel

At the core of this product is the TCP/IP protocol stack, also known as the kernel. The protocol stack provides the software necessary to use the Internet and to use files and programs on your network computers. The protocol stack is the basis of the networking software that passes information between network computers that use the TCP/IP protocol to communicate.

Drivers

For the kernel to communicate with the network hardware, it needs an intermediate piece of software, called a network interface driver. The driver works with the network hardware, preventing the software from needing all the hardware details. When you install OnNet16, you must install or use an existing driver.

Drivers are usually built and distributed by the vendors who make your network interface cards. FTP Software provides some drivers for you on the disks or CD-ROM. The /support directory on the anonymous FTP server, ftp.ftp.com, also contains a repository of drivers.

There are several types of network drivers available on the market today, each type developed by different networking companies. OnNet16 supports packet drivers, NDIS drivers, ODI drivers, and ASI drivers.

These drivers are called shared drivers. This means that OnNet16 can use the same network hardware that another network operating system (NOS), such as Novell NetWare or Windows for Workgroups, is using. Share drivers let your computer connect to more than one kind of NOS at the same time, which is useful if you need to access resources or computers both on a TCP/IP and another type of network.

One reason some networks are difficult to install is because of the way you must set up the drivers. Each type of driver requires different installation steps. OnNet16 simplifies configuration by automatically detecting drivers that are already installed on your computer and configuring your computer accordingly. If no drivers are installed, the Setup program configures most new drivers for you.

Packet drivers

A network driver that meets the packet driver specifications defined by FTP Software in 1987.

NDIS drivers

Network Driver Interface Specification, a network driver specification developed by Microsoft to work with LAN Manager and Windows for Workgroups.

ODI drivers

Open DataLink Interface drivers, a network driver specification developed by Novell.

ASI drivers

Adapter Support Interface drivers, a network driver specification defined by IBM for their 802.5 Token-Ring and LAN Support program.

Work with System Files

Drivers, kernels, and network applications are controlled by DOS and Windows system files.

The drivers load through files such as AUTOEXEC.BAT and CONFIG.SYS, depending on the type of driver. Other files that initialize drivers include the NDIS driver PROTOCOL.INI file and the ODI driver NET.CFG file.

You can also load VXDINIT, which starts the kernel when Windows starts up, through AUTOEXEC.BAT, so that your computer automatically connects to the network when you start Windows.

The PCTCP.INI file controls how OnNet16 works. When you use the installation and configuration programs they update PCTCP.INI with the information that you provide. The next time that you start your computer, those values are in effect by default. You can use the Configure application to change values in your PCTCP.INI file, or you can edit the PCTCP.INI file manually with a text editor.

OnNet16 also uses Windows files, such as SYSTEM.INI and WIN.INI. Settings in these files take effect each time that you load Windows.

Go Beyond Your Network

OnNet16 is based on the TCP/IP (Transmission Control Protocol/Internet Protocol) suite. A protocol is a set of rules that computers use to exchange information on a network. The Department of Defense Advanced Research Projects Agency (DARPA) originally funded and developed TCP/IP for use on the Internet, the network originally used by research and academic communities. With the explosive growth of interest in the information superhighway, the size of the Internet continues to increase dramatically each year.

This means that not only can you use OnNet16 to access services or programs on other TCP/IP computers in your company or campus, but, with Internet access, you can also exchange information with millions of users around the world.

Use the Setup program

This online Help describes the OnNet16 Connectivity Suite for Windows 3.1 and Windows for Workgroups Setup program dialog boxes and general product functionality.

For computer requirements, see Verifying Installation Prerequisites.
For a product overview, see Understanding Network Concepts.

Using Program Dialog Boxes

Choose the following buttons, or type the keyboard equivalent, to move through this installation program. Some screens may not contain all of the following buttons.

Continue or OK	Accepts the information you typed in the current screen and moves to the next screen in the Setup program.
Back	Returns to the previous screen.
Exit	Ends the installation process. You must run the program again to correctly install OnNet16.
Help	Displays online Help, including a product overview for new users and information about how to use the Setup program with a keyboard or mouse.

Using the Keyboard

Instead of using the mouse, you can use the keyboard to move to information fields and select buttons and boxes.

To do this:	**Type:**
Accept information and continue	ENTER (or RETURN) key.
Select a button	ALT + the underlined letter in the button name.
Move to a field	ALT + the underlined letter in the field label.
Move through screen fields	TAB key. (SHIFT + TAB to move in reverse direction).
Scroll through items in a list	Arrow key (up or down).
Toggle between radio buttons	Arrow key (up or down).
Toggle a check box	Space bar.
Expand a list box	ALT + arrow key (up or down).

Verify Installation Prerequisites

Before you install the software, you should review installation requirements. The following topics outline prerequisites for running the Setup program and define the information that you may need to provide when running the program:

Unless these steps may have already been done for you, you might need to consult with your network administrator to obtain or verify installation information.

Verify Hardware and Software Prerequisites

Ensure that your computer meets the following hardware and software requirements. Leave your existing kernel, other network operating systems, and drivers loaded so that the install program can detect your environment and install the appropriate kernel and driver.

Requirement	**OnNet16**
Processor	Intel 80386 (or higher)
Disk Space	Depends upon the components and subcomponents you choose to install. If you choose a Custom installation, you can determine the required disk space from the Components dialog box.
Memory	Standard Mode: 1 MB 386 Enhanced Mode: 4 MB
Operating Systems	Microsoft Windows version 3.1 Microsoft Windows for Workgroups version 3.11

Note: If you install OnNet16 on a Windows computer that is running the Microsoft TCP/IP protocol stack (Wolverine), the Setup program prompts you to choose between keeping the Microsoft stack and replacing it with the FTP Software stack. If you choose the FTP Software stack, the Setup program will remove the Microsoft stack and install the FTP Software stack.

If you choose to keep the Microsoft stack, OnNet16 is installed as an applications-only product. This installation installs the FTP Software programs that run over Windows Sockets, but not the Dialer, IPTrace, Ping, or Statistics.

Install Your Network Card

The network interface card provides the physical connection between your computer and your local area network (LAN). The type of network card that you install depends upon the type of network that your computer is connected to, such as Ethernet or Token Ring.

To operate in a LAN environment, you must install a network interface card on your computer before you install OnNet16. You do not need a network interface card if you use PPP (Point-to-Point Protocol) or SLIP (Serial Line Interface Protocol) to connect to a network over a modem, an ISDN line, or a dedicated serial line.

The Setup program uses the name and type of your network interface card to determine the appropriate driver to install on your computer.

Verify Network Interface Drivers

The network interface driver is software that passes information between a network operating system (NOS) or, in the case of OnNet16, the TCP/IP protocol stack, and network hardware (your network interface card). Typically, the manufacturer of the network card supplies a disk containing a network driver.

Depending upon the type of driver that you intend to use, you might need to install it before you run the Setup program. When the Setup program detects an installed network interface driver, Setup configures your computer and OnNet16 to use that driver.

If you intend to use another NOS concurrently with OnNet16, install and run that NOS so the Setup program can detect the network interface driver used by the NOS, and configure OnNet16 to share the driver.

If you intend to use a packet driver, NDIS driver, or ODI driver that is not already installed, you can let the Setup program select the appropriate driver for you, or you can provide an updated packet driver disk during installation.

If you intend to use any of the following network interface drivers, install that driver before you run the Setup program:

- ASI (Adapter Support Interface), usually used with Token Ring
- A VINES driver, used with Banyan VINES

Install Other Network Operating Systems

Install any other network operating system before you install OnNet16.

When you have properly installed another network operating system, the Setup program detects that system and shares the appropriate network driver.

You can use OnNet16 with the following network operating systems:

- Microsoft Windows for Workgroups
- Novell NetWare
- Microsoft LAN Manager
- Banyan VINES
- Other network operating systems that use standard drivers (such as NDIS)

Note: You cannot run two TCP/IP protocol stacks simultaneously over a single network card and driver. Both stacks require the same packets (such as IP and ARP) and the driver can supply these packets to only one stack at a time. Because of this, you cannot use OnNet16 concurrently over a single network card with another TCP/IP protocol stack, such as Microsoft TCP/IP.

Review Required Installation Information

You may need the following information when you run the Setup program. If you are upgrading, the Setup program detects and displays your existing configuration for you. If you do not know the following information, ask your network administrator.

This pair of numbers is printed on your FTP Software License Package:

License Key
Serial Number

Network Interface Card Information

If you have not already configured a network interface card, the OnNet16 Setup program prompts you for the information necessary to configure the card. If you are already running a network card driver (for example, if you are already using a network operating system such as Microsoft Windows Network), you do not need to repeat the network card configuration. If you do need to configure the network interface card, see the documentation that came with your network interface card for the following settings:

Name of Network Card

Frame (Network) Type

Interrupt Vector (IRQ)

Input/Output (I/O) Address

Base Memory Address

Internet (IP) Network Information

Unless you have a previous version of OnNet16 on your computer or your network uses Dynamic Host Configuration Protocol (DHCP) or Bootp to provide IP configuration when you start up your computer, you need to specify IP information during the Setup program. See your network administrator or Internet service provider for the following information:

IP Address of your computer

Subnet mask

IP Address of default router (3 maximum)

Hostname of your computer

Domain in which your host is located

Type(s) of name resolution (DNS or NIS; WINS)

IP Address of DNS (Domain Name System) or NIS (Network Information System) servers (3 maximum)

IP Address of WINS (Windows Internet Naming Service) servers (3 maximum)

Select a New Installation Method

For new installations of OnNet16 Connectivity Suite for Windows 3.1 and Windows for Workgroups, choose Express or Custom install. Both methods will prompt you for required information, such as the destination directory and Internet Protocol (IP) addresses, and offer you the choice to update computer files.

Related Topics

Refer to the following topics for more information:

- Selecting an Upgrade Method
- Selecting a Reinstallation Method
- Using the Setup Program
- Understanding Network Concepts

Express

Choose Express to quickly install or upgrade OnNet16. Express detects your computers network environment and drivers and installs a default set of applications.

If you are installing the product for the first time, Express configures one network interface for your computer. If you are upgrading from a previous release, you can also choose to add or update network interfaces and the program uses any existing network configuration from a previous release.

Express is the fastest installation option and requires the least user input. This option is recommended for users new to networking software.

Custom

Choose Custom if you are an experienced user who wants to control what components are installed. The Custom installation method does the same things as the Express installation method, but gives you more control over the installation.

Choose Custom to

- Select which applications to install.
- Create multiple network interfaces; for example, one interface for a local area network (LAN) and one for a serial connection.

This option is recommended for network administrators and users who need to limit the amount of disk space required or need to define multiple interfaces.

Select an Upgrade Method

If you are upgrading OnNet16 Connectivity Suite for Windows 3.1 and Windows for Workgroups from a previous version of OnNet or PC/TCP, you can choose between Express and Custom, as you can for a new installation; or you can choose the New installation method.

Each option copies new files, updates (overwrites) existing files, and deletes obsolete files.

Related Topics

Refer to the following topics for more information:

- Selecting a New Installation Method
- Selecting a Reinstallation Method
- Using the Setup Program
- Understanding Network Concepts

New Installation

Begins a new installation that does not display or use installation information from a previous version of OnNet16. You will be prompted for all installation information.

Select a Reinstallation Method

If you have already installed this version of the OnNet16 Connectivity Suite for Windows 3.1 and Windows for Workgroups, you can choose to Add components or to Reinstall the whole product.

Related Topics

Refer to the following topics for more information:

- Selecting a New Installation Method
- Selecting an Upgrade Method
- Using the Setup Program
- Understanding Network Concepts

Add

Lets you add a network driver or install additional components. For example, you can use this option to add a SLIP or PPP driver after installing an Ethernet driver, or to add a component that you did not originally install.

Note: You cannot use this option to remove existing files.

Reinstall

Begins a new installation and prompts for all installation information (displays existing configuration information as defaults). To ensure this installation does not conflict with a previous installation, you might want to install to a different destination directory. If you install to your existing OnNet16 directory, existing files will be overwritten (except for your configuration files, such as PCTCP.INI).

Specify the Serial Number and License Key

In the Serial Number/License Key dialog box, type the license key and, optionally, the serial number printed on the FTP Software License Package in your product distribution. Type the serial number in the form *nnnn-nnnn-nnnn* and the license key in the form *nnnn-nnnnn-nnnn*. These numbers uniquely identify your copy of the software.

Note: If you do not type a license key, you may continue the installation and use the product for 30 days.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Specify the Destination Directory

In the Destination Directory dialog box, type the full path where you want to install the software, including any drivers and related configuration files that you add during the installation. If you want to install to a directory other than the default (C:\PCTCP), type a directory name in place of the default. If you type a directory name that does not exist, the Setup program creates the directory.

If you are upgrading and installing to the same destination directory, the Setup program updates your existing OnNet16 files. If you upgrade and install to a different directory, the Setup program does not overwrite your existing files.

To set a destination directory

In the Destination Directory dialog box, accept the highlighted driver in the list box by choosing Continue.
--or--
Use the Drives and Directory list boxes to find and choose a destination directory; then choose Continue.
--or--
Type a directory name (if the directory does not exist, the Setup program creates it) and choose Continue.

Note: The Setup program creates subdirectories under the main directory. The \ETC directory contains files that define general system information and the SERVICES and PROTOCOL files used by the Windows Sockets library. The \SAMPLES directory contains files pertaining to serial line (dial-up) connections (if you install a serial network interface). Other subdirectories contain the files for specific OnNet16 programs.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Choose a TCP/IP Stack

In the TCP/IP Stack Vendor dialog box, specify whether you want to use the Microsoft TCP/IP protocol stack already in use on your computer, or whether you want the Setup program to remove that stack and replace it with the FTP Software stack. You cannot use both the Microsoft and the FTP Software TCP/IP stacks.

If you keep the Microsoft TCP/IP stack, only the Windows Sockets programs are installed. The Setup program does not install the FTP kernel; and it does not install several programs that comprise the kernel services, such as the Dialer, Ping, IPTrace, and Statistics.

Select Components

From the Components dialog box, select or deselect which components (major groupings of programs) and subcomponents (individual programs within a component) to install.

By default, the Setup program copies a base set of files that provide basic network connectivity, including the TCP/IP kernel. You can select additional components, such as InterDrive or mail programs, and subcomponents, or you can choose not to install specific components or subcomponents.

To choose components

In the Optional Components list in the Components dialog box, click the check box beside a component to select or deselect it.

A check mark indicates that the component will be installed.

The Setup program installs a default set of subcomponents for each component that you select. You can, however, more precisely control what subcomponents are installed.

To choose subcomponents

1. In the Components dialog box, select Show Sub-components.
2. In the Optional Components list, click the check box beside a subcomponent to select or deselect it.

The disk space required to install the components that you select appears at the bottom of the dialog box. This disk space consumption value varies from computer to computer, due to the DOS file storage mechanism. The actual size depends upon the size of the hard disk partition: the larger the disk partition, the more disk space will be used.

If you select a component but none of its subcomponents, the disk space may, nevertheless, amount to more than 0, since some related files will be installed.

Archiving and Restoring Files

Back up and restore files.

Exchanging Mail, Messages and News

Read and send electronic mail, read bulletin boards and access news groups; chat with other users on the network.

Finding Hosts and Users on the Network

Verify that computers are on the network; obtain information about users and hosts.

Firewall Pass-through (SOCKS)

Use SOCKS security to access a host computer that is protected by a SOCKS firewall.

KEYview

View and print files independently of the program that created them.

Logging into a Remote Host

Log in to Telnet servers on remote hosts; execute commands on remote hosts.

Network File and Print Services

Use files on remote NFS hosts, manage files and directories on remote NFS hosts, and print to remote NFS printers.

Printing

Send print jobs to network printers, using the LPD protocol.

Tools

Collect and display data about packets sent from or received by the TCP/IP protocol stack and gather information about system files to use when you contact Technical Support.

Transferring Files (FTP)

Transfer single or multiple files between your computer and other hosts on the network.

Windows Server Control

Set up Windows FTP and Print servers; set up a Windows SNMP MIB II agent.

Reference Desk

View online versions of the document set.

Note: If you do not select a component at this time, you can add that component later by running the Setup program again.

Related Topics

Refer to the following topics for more information:

Using a Reinstallation to Install Additional Components
Using the Setup Program
Understanding Network Concepts

Select or Update an Existing Driver

When the OnNet16 Setup program detects a network driver on your computer, it displays the Found Existing Driver dialog box. Use this dialog box to choose to use the installed driver or to install a new driver.

If you use another network operating system (NOS) concurrently with OnNet16, you should use your existing driver. The Setup program configures your computer to share that driver with the other NOS.

To use the installed network driver

In the Found Existing Driver dialog box, accept the detected (highlighted) driver by choosing Continue.

To install an alternative network driver

1. In the Found Existing Driver dialog box, select Install a New Driver; then choose OK.
2. In the Network Card dialog box, select from the list of network cards and supported packet drivers; then choose OK.
   --or--
   Insert a disk that contains a vendor-supplied driver. In the Network Card dialog box, select Other NDIS Driver or Updated Packet Driver and then choose OK. In the Network Card Driver Disk dialog box, accept the default A: disk drive or type the letter of the drive that contains the network driver and click OK.
3. Accept the default network card configuration values or specify other values; then choose OK.
4. In the IP Configuration dialog box, choose Obtain Configuration From a DHCP server or type the IP address of your computer, the network subnet mask, and the IP address of the network router; then choose OK.
5. In the Network Interface dialog box, choose Make Default, to use the network interface you configured and then click Continue.
   --or--
   Click Continue to use the detected network driver.

To add a serial port

1. In the Found Existing Driver dialog box, select Install a New Driver; then choose OK.
2. In the Network Card dialog box, select Serial Port Using SLIP or PPP from the list of alternative cards and drivers; then choose OK.
3. In the Serial Protocol dialog box, click Point to Point Protocol (PPP) or Serial Line Interface Protocol (SLIP) ; then choose OK.

   Note: The Setup program installs both PPP and SLIP support but prompts you to select one as the default. After installation, you can switch between the PPP and SLIP protocols by using the Dialer application.
4. In the Network Interface dialog box, choose Make Default, to use the serial interface you configured and then click Continue.
   --or--
   Click Continue to use the detected network driver.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Select a Network Card or Serial Port

If your computer has no network driver running or if you choose to install a new network driver, the Setup program displays the Network Card dialog box. Select the name of the network card you have installed in your computer, or select Serial Port Using SLIP or PPP for any serial (dial-up) connection, including ISDN.

To find the name of your network card, refer to the vendor-supplied documentation that accompanied that card.

The Setup program determines the appropriate driver to install, based on the choice you make.

To specify your network card or to specify SLIP or PPP

In the Network Card dialog box, select the name of your card or Serial Port Using Slip or PPP; choose Continue.
--or--
Select None; after the installation, manually install and configure the network driver for that card.
--or--
Select Other NDIS Driver or Updated Packet Driver; when the Setup program prompts you, insert the disk containing a network card driver (supplied by the manufacturer of your network card).

If you cannot determine the type of network card installed in your computer you can continue with the installation and use the Configure application later to specify this information; see your network administrator for assistance.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts
Driver Concepts

Select Network Card Settings

After you select a network card, the Setup program displays a network card setting dialog box, which is specific to your card; generally you can click Continue to accept the default settings. Otherwise, select or type the appropriate values to use for your network card. Refer to your network card documentation for appropriate values.

If any of the fields are grayed-out on your screen, or you see the phrase `Automatic or Unused`, or both, you do not have to configure that setting.

The following table lists and describes the fields in the network card settings dialog box:

Card Setting	Description
Interrupt Vector (IRQ)	The Interrupt vector used by your network card (an electronic signal the card uses to communicate with your computer). Some common settings are 3 and 5.
Base I/O Port	The input/output channel used by your network card to send signals to your computers Central Processing Unit (CPU). Type this in hexadecimal notation, such as 0x300 or 0x360.
Base Memory Address	The base memory address (RAM address) for your network card (the location in your computers memory used by the card to communicate with other computers). Type this value in hexadecimal notation, such as 0xD000 or 0xD400.

Configuring Additional Card Settings

Choose Additional to configure other network card settings (if there are any for your card). Typically, you do not need to configure additional settings, in which case the Setup program uses the defaults for those settings. If there are additional configuration settings for your network card, the resulting dialog box displays those settings and any default values.

To view or change an additional setting

1. In the network card setting dialog box, choose Additional.
2. In the Additional Settings box, choose a parameter from the Additional Settings list box.
3. Type or select the value for the parameter in the Value field.
4. To register the new value, choose Set.
   or
   To display the original value for that setting, choose Revert.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Select a Serial Protocol

If you selected Serial Port Using SLIP or PPP in the Network Card Configuration dialog box, the program displays the Serial Protocol dialog box. Select the protocol to use for your serial line connection: PPP (Point-to-Point Protocol) or SLIP (Serial Line Internet Protocol).

SLIP and PPP are serial line protocols that let your computer communicate with remote hosts over the Internet using a telephone line and a modem or using an ISDN interface and line. Your network service provider (or the network administrator at your workplace) usually specifies which serial protocol to use.

Note: When you communicate with remote hosts over a serial line, both hosts must use the same serial line protocol.

In general, SLIP is simpler and less reliable, and PPP is more complex and more reliable.

Use SLIP in network environments where there is minimal risk of data corruption and where data transfer speed is critical.

Use PPP if you use an ISDN line or when you need to

- Minimize recovery time in network environments that may not take other measures to protect against data corruption.
- Use connection management options such as automatic timeouts and PAP/CHAP user authentication.
- Configure your connection with an unknown IP address.
- Transfer files larger than 4 MB.

The Setup program installs both PPP and SLIP support but prompts you to select one as the default. After installation, you can switch between the PPP and SLIP protocols by using the Dialer application.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Configure Additional Network Card Settings

Specify any additional settings for your network card in the appropriate field(s). Generally, you can use the default setting.

Note that some parameters are marked as Not Present. This means that the parameter is optional; you do not have to use this parameter, but if you do, you must supply a value.

To view or change an additional setting

1. In the network card settings dialog box, choose Additional.
2. In the Additional Settings box, select the appropriate network card setting.
3. In the Value field, type the new setting.
4. To register the new value, choose Set.
   or
   To display the original value for that setting, choose Revert.

Typically you do not have to configure additional settings, in which case the Setup program uses the default values for those settings.

Refer to the network card manufacturers documentation for more information about additional settings.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Select a Network Type

In the Network Type dialog box, select the kind of network to which your computer is connected, defined by the way in which transmitted data is packaged (or framed) for that network. The DIX Ethernet network type is a frequently used choice, and is the correct choice for most FDDI (Fiber Distributed Data Interface) installations (using an ODI (Open DataLink Interface) driver).

If you are unsure what to select, you can continue with the installation and use the Configure application later to specify this information; see your network administrator for assistance.

Related Topics

Refer to the following topics for more information:

Change the Configuration of an Interface
Configure Additional LAN Interfaces
Configure SLIP or PPP Interfaces
Remove an Interface

Serial Line Interface Protocol

A simpler and less reliable protocol than PPP.

Lets your computer communicate with remote hosts by using a telephone line and a modem or using an ISDN interface and line. Your network service provider (or the network administrator at your workplace) usually specifies which protocol to use.

Use SLIP in network environments where there is minimal risk of data corruption and where data transfer speed is critical.

Point-to-Point Protocol

A more complex and more reliable protocol than SLIP.

Lets your computer communicate with remote hosts by using a telephone line and a modem or using an ISDN interface and line. Your network service provider (or the network administrator at your workplace) usually specifies which protocol to use.

Use PPP if you use an ISDN line or when you need to

- Minimize recovery time in network environments that may not take other measures to protect against data corruption.
- Use connection management options such as automatic timeouts and PAP/CHAP user authentication.
- Configure your connection with an unknown IP address.
- Transfer files larger than 4 MB.

Configure the Internet Protocol (IP) Address and Routers

Use the IP Configuration dialog box to configure a permanent IP address for your computer or to obtain your configuration dynamically (when you start Windows) from a DHCP or Bootp server. If you are configuring permanent IP values, obtain the appropriate information from your network administrator.

To dynamically configure your computer's IP address

In the IP Configuration dialog box, select Obtain Configuration from a DHCP Server.

The addresses group is grayed-out and you do not configure any additional information in this dialog box.

To permanently configure your computer's IP address

1. In the IP Configuration dialog box, select Specify Configuration.
2. In the appropriate boxes, type the IP address of your computer, the subnet mask for your network, and the IP addresses of network routers (computers that direct network traffic between hosts).

   An IP address uniquely identifies your computer and servers to others on the network. IP addresses follow a standard notation of four groups of numbers separated by periods; for example, 123.75.51.125.

   In each edit box, once you type three digits in front of a period (.), the cursor moves to the space before the next period. If you type a value of less than three digits, you need to use the arrow key or the mouse (or other pointing device), to move to the next space. (Tab moves your cursor to the next edit box.)

The following table lists and describes the fields in the IP Configuration dialog box:

Address	Description
IP Address	The IP address of your computer in dot notation. An IP address uniquely identifies your computer to others on the network. For example: 123.145.51.125
Subnet Mask	The subnet defines a smaller network within the larger Internet network. If possible, the Setup program provides the appropriate subnet mask based on your IP address. For example: 255.255.255.0
Router(s)	A router directs network traffic between hosts on your network. You can specify one to three routers, using their IP addresses, for example: 123.145.51.4

If you do not know this information, ask your network administrator.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts
Identifying Computers and Users on the Network

Select or Update an Interface

Use the Network Interface Summary dialog box to confirm, modify, or add network interfaces (such as a serial interface) for your computer. The dialog box displays the configuration for your existing network interface(s): network interface driver, network type, Internet address, and network card.

The Setup program copies the files required for each interface to the destination directory you specified earlier in the program. The program configures your computer for the one selected or the default interface.

You can easily switch from using a LAN interface to using a PPP or SLIP interface. To do so, use the Dialer; when you close the serial connection, the computer returns to the LAN connection.

To switch between two LAN interfaces, use the Configure utility, type the **pctcpcfg** command from a DOS prompt, or manually edit your PCTCP.INI file and other system files.

To use the configured interface(s)

Accept the highlighted interface by choosing Continue.
-or-
Select another configured interface from the list box; choose Make Default; then choose Continue.

Related Topics

Refer to the following topics for more information:

- Using the Setup Program
- Understanding Network Concepts
- Change the Configuration of an Interface
- Configure Additional LAN Interfaces
- Configure SLIP or PPP Interfaces
- Remove an Interface

Configure Additional LAN Interfaces

Use the Setup program to add network interfaces. You cannot use the interfaces interchangeably, but you can switch between them. To do so, use the Configure program to set another interface as the default and then restart Windows.

To configure an additional LAN interface

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. In the Network Interface dialog box; choose Add.
3. In the IP Configuration dialog box, type the IP address of your computer, the network subnet mask, and the IP address of the router for the new interface.
4. When the Setup program returns to the Network Interface dialog box, the new interface is highlighted. To set it as the default interface, click Make Default. When your computer restarts, after you complete the installation, the new interface will be the active LAN interface.
5. Choose Continue in each remaining dialog box. When the Setup program prompts you, let it update your system files and restart your computer.

Configure SLIP or PPP Interfaces

Use the Setup program to add a PPP or SLIP interface for your modem or ISDN line.

To configure a SLIP or PPP interface

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. In the Network Interface dialog box; choose Add.
3. In the Network Type dialog box, select Serial - PPP or Serial - SLIP in the list box.
4. In the Network Interface dialog box; choose Continue.
5. Choose Continue in each remaining dialog box. When the Setup program prompts you, let it update your system files and restart your computer.

To switch from the LAN connection to a PPP or SLIP connection, use the Dialer; when you close the PPP or SLIP connection, the computer returns to the LAN connection.

Change the Configuration of an Interface

Use the Setup program to reconfigure a LAN or a SLIP or PPP interface.

To change the configuration of an interface

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. In the Network Interface dialog box, select an interface in the list box and choose Update.
3. If you choose to update a LAN network interface, you can specify a different network type and change the IP configuration.

   If you choose to update a PPP or SLIP interface, you can specify a different protocol (SLIP or PPP) to use.
4. Choose Continue in each remaining dialog box. When the Setup program prompts you, let it update your system files and restart your computer.

Remove an Interface

Use the Setup program to remove the configuration of an interface from the configuration file.

To remove an interface

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. In the Network Interface dialog box, select an interface in the list box and choose Remove.
3. Choose Continue in each remaining dialog box. When the Setup program prompts you, let it update your system files and restart your computer.

Configure DNS or NIS Name Resolution

Domain Name System (DNS) and Network Information System (NIS) servers translate (resolve) the hostnames that you type to the IP addresses that Intranets and the Internet use to determine where to send data. Use the Name Server Configuration dialog box to configure DNS or NIS hostname resolution and to specify the computers that resolve hostnames.

To configure name resolution

1. In the Name Server Configuration dialog box, select either DNS or NIS.
2. For each field, type the name or address.
   --or--
   Accept the displayed name or address.
   --or--
   Type an alternative name or address.

The following table lists and describes the fields in the Name Server Configuration dialog box. If you do not know this information, ask your network administrator.

Name or Address	Description
Host name	The hostname of your computer(for example, mypc). A hostname can be used interchangeably with your IP address to identify your computer on the network. If you are using another network operating system, such as the Microsoft Windows Network, the hostname might be the same as your Computer Name.
Domain name	The domain name of your computer network (for example: xyz.com). A domain name represents the organization on the Internet network to which your computer belongs. **Note:** The domain name is also used as the default NetBIOS domain scope; if you are using a Microsoft network, you must configure the domain name to use WINS (Windows Internet Naming Service) name resolution.
NIS Domain Name	The NIS domain name of your network. This field is visible only if you selected the NIS type of name server.
Name Server Addresses	The Internet address for each name server on your network. For example: 123.145.55.123. A name server translates IP addresses to domain names, and domain names to IP addresses. You can specify up to three name servers.

Related Topics

Refer to the following topics for more information:

Configuring WINS Name Resolution
Identifying Computers and Users on the Network

Configure WINS Name Resolution

The Microsoft Client for Microsoft Networks uses the NetBIOS protocol to enable connectivity between computers running Microsoft Windows 95, Windows for Workgroups, Windows NT, LAN Manager, and other Microsoft-compatible computers. If you install the FTP Software TCP/IP protocol stack, you can continue to use NetBIOS networking in addition to TCP/IP networking.

Typically, NetBIOS relies on broadcast messages to establish communications with other NetBIOS computers. This limits NetBIOS communications to a single subnet. You can circumvent this limitation by using the Windows Internet Naming Service (WINS) to identify computers on other subnets. WINS maps NetBIOS names to IP addresses.

If WINS cannot resolve the NetBIOS name, the stack uses the Domain Name System (DNS) to resolve the name. The stack appends your domain name to your computers NetBIOS name and sends it to the DNS server. For this method to work, each computer that will communicate using NetBIOS should have its computer (NetBIOS) name be the same as its IP hostname. (You specify the computer name by choosing Networks in Windows Control Panel.)

To configure WINS name resolution

1. In the WINS (NetBIOS) Configuration dialog box, select Use WINS and Broadcast Resolution.
   --or--
   Select Use WINS Resolution Only.
2. For each WINS server you plan to use, in the WINS Server box, type the servers IP address and click Add.
3. If your network administrator has told you to do so, type a scope ID.

The following table lists and describes the fields in the WINS (NetBIOS) Configuration dialog box. If you do not know this information, ask your network administrator.

Option	Description
Disable WINS resolution	Sets the NetBIOS node type to B, which means that NetBIOS resolves hostnames by using the following three resources, in this order: • Name cache on the local computer • Broadcasted request • NAMES or LMHOSTS file on the local computer
Use WINS and broadcast resolution	Sets the NetBIOS node type to H, which means that NetBIOS resolves hostnames primarily by using a WINS server, but uses broadcasts if the name cannot be resolved by a WINS server.
Use WINS resolution only	Sets the NetBIOS node type to P, which means that NetBIOS resolves hostnames by using only WINS servers and does not use broadcasts.
Set WINS server	The IP address of up to three NT computers that provide WINS name resolution service.
NetBIOS Scope ID	Specifies the scope identifier that this host will use to communicate with other hosts using NetBIOS networking. A scope ID is some arbitrary value, often a workgroup name, assigned by the network administrator. When using TCP/IP to handle NetBIOS traffic, all computers that will communicate with each other using NetBIOS

broadcasts must use the same scope ID.

Related Topics

Configuring DNS or NIS Name Resolution
Identifying Computers and Users on the Network

Specify Your Username

In the Username Configuration dialog box, type the name you want to use when you log in to remote hosts. Several programs, including file transfer, pcmail and network news (not Mail OnNet), and remote login, use this username.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Select a Time Zone

In the Time Zone Configuration dialog box, select the appropriate time zone for your geographic area. The Network Time application uses this setting.

If you are upgrading, note that the time zone selected by default is determined by an entry in the Setup program file SETUP.INF, not by your previous version of OnNet16. If you are unsure which time zone to select, ask your network administrator.

Note: Use the Network Time application for Windows to set your computer's clock from a network time server.

Related Topics

Refer to the following topics for more information:

Using the Setup Program
Understanding Network Concepts

Choose Network Driver Availability

If you selected InterDrive or Printing in the Components dialog box, you can use the Network Driver Availability dialog box to choose whether to use the FTP Software Windows network driver (FTP NFS) to access remote files and services through the Windows File Manager, Print Manager, and Control Panel. If you use another network operating system (NOS) in addition to the FTP NFS, you can also choose the order in which you access the services of each NOS. Note that the default for this dialog box depends on what other NOSs are already installed on your computer.

The following table lists and describes options for choosing your network driver availability.

Choose	To
No Access	Continue using another NOS that does not chain. With this choice, you use the other NOS from File Manager, Print Manager, or Control Panel. You can mount remote drives and printers, using FTP NFS, from the OnNet16 Network Control application.
Primary Network	Configure FTP NFS as the first network driver available from File Manager, Print Manager, or Control Panel, and chain the existing NOS (such as Microsoft Windows Network) to FTP NFS.
Secondary Network	Configure FTP NFS as the second network driver available from File Manager, Print Manager, or Control Panel, chained to another NOS.

Related Topics

Refer to the following topics for more information:

- Using the Setup Program
- Understanding Network Concepts

Configure a Firewall Pass-Through Server

In the Firewall Pass-Through Configuration dialog box, specify the hostname or, preferably, the IP address of a default SOCKS server to use. This information is required unless the SOCKS.CNF configuration file specifies a SOCKS server. The SOCKS server is your entry point into a network that is protected by a firewall.

Any application that uses TCP and that runs over the Windows Sockets DLL can use SOCKS security.

Run the Microsoft Windows Network Setup

If you are installing OnNet16 on a computer that is also using Microsoft Windows Network, the Setup program provides you the option to run the Microsoft Windows Network Setup to configure OnNet16 to interoperate with Microsoft Windows Network. If you choose Start, the Setup program starts Network Setup.

To set up the FTP Software Network to work with the Microsoft Windows Network

1. Choose the Drivers button in the Network Settings group box.
2. Select the driver you want to use in the Network Drivers group box and choose Add Protocol.
3. Select Unlisted or Updated Protocol, and choose OK.
4. Type the destination directory where you installed OnNet16. For example:

   C:\PCTCP
5. Choose OK.
6. Select the FTP Software VxD kernel, then choose OK.
7. Close the Network Drivers dialog box.
8. Choose the Networks button in the Network Settings group box.
9. If, in the Choose Network Driver Availability dialog box in the OnNet16 Setup program, you selected OnNet16 as the primary or secondary network driver, choose Install Microsoft Windows Network, then choose Other and select FTP Software Network. Choose OK.

   --or--

   To configure your computer to use FTP Software Network only, choose Install Windows Support for the Following Network, then select FTP Software Network. Choose OK.
10. Choose OK to close the Network Setup dialog box.
11. Choose Restart so that the Setup program prompts you to reboot the computer.
12. Return to the Setup program.

Choose a Location for Reference Desk Files

If you install OnNet16 from a network drive or from a CD-ROM, you can choose between copying the Reference desk files to your hard drive and leaving them on the network drive or CD-ROM. (You can choose which books to install during a Custom installation, from the Components dialog box.)

If you choose	The Setup program
Copy Books to my Hard Drive	Lets you select documentation to install on your hard drive.
Leave Books on the CD-ROM	Configures your computer to access the books from the network drive or CD-ROM.

Use a Reinstallation to Install Online Documentation

Use the Setup program to install the OnNet16 online documentation if you did not install it when you first installed the software.

To install online documentation

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. In the Components dialog box, if Reference Desk is not selected, click on it to select it. Deselect the remaining components (unless you plan to install or reinstall them).
3. Choose Continue in each remaining dialog box.
4. You do not need to restart your computer.

Use a Reinstallation to Install Additional Components

Use the Setup program to add components that you did not install when you first installed the software. For example, you can install SOCKS support, which is not installed during an Express installation.

To install additional components

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. Choose Continue in each dialog box.
3. In the Components dialog box, select the components you want to install or reinstall. Deselect the remaining components.
4. Choose Continue in each remaining dialog box.
5. When the Setup program prompts you, let it update your system files and restart your computer.

Use a Reinstallation to Redefine General Information

Use the Setup program to redefine information such as the name servers on your network, your username, and the local time zone.

To redefine general information

1. Start the Setup program; in the Reinstall dialog box, select Add.
2. Choose Continue in each dialog box until you see the appropriate dialog box for the information you want to change.
3. Type or select the correct information.
4. Choose Continue in each remaining dialog box. When the Setup program prompts you, let it update your system files and restart your computer.

Enable Mail OnNet

If you choose to enable Mail OnNet, the Setup program installs all the files necessary to run Mail OnNet, including a MAPI.DLL file, in the directory you specify for the OnNet16 files. Setup also renames the C:\WINDOWS\SYSTEM\MAPI.DLL file to MAPI.FTP.

If you install Mail OnNet, and later decide to use the other mail program on your computer, you can do so as follows:

1. Rename the C:\WINDOWS\SYSTEM\MAPI.FTP file to MAPI.DLL.
2. Rename the C:\PCTCP\MAPI.DLL file to MAPI.FTP.

chaining: The ability to use the functions of one NOS through the interface of another NOS.

FTP Software NFS can chain to any NOS that supports chaining. For example, if FTP Software NFS is chained to a Microsoft NOS, you can access FTP Software NFS from a button that is added to the interface to the Microsoft NOS.

Technical assistance

Users in the U.S. and Canada, and worldwide resellers, contact FTP Software®:

Telephone: **(800) 382-4387**
(508) 685-3600
E-mail: **support@ftp.com**
Fax: **(508) 794-4484**

or

Users outside of the U.S. and Canada, contact your local reseller.

Tip

For FREE online technical services, see:

World Wide Web: **http://www.ftp.com**
Anonymous Ftp Server: **ftp.ftp.com**
Bulletin Board System: **(508) 684-6240** (settings 8,N,1)
CompuServe: **GO FTPSOFT** (PCVENJ Section 8)