The Network Information Query Application - Table of Contents
Network Information Query lets you determine if an entry, or NIS key, exists in a particular NIS map, or database. You can also enter several characters to get a list of entries that may be what you are looking for, or to see all the entries in a map.

You can use Network Information Query to search for the names of servers in the network, check for a user name, and other common network services. See Network Information Query Examples for common queries you might want to perform.

Topics

Network Information Query - Search for an Exact Match

To search for an exact match of a key in an NIS map

1. Enter the key for the map entry you want. The keys to a map are case-sensitive. You must enter the key exactly, for example "Cto" and "cto" would be different entries.
2. Select the map from the list of Map names, or enter a name in the edit box.
3. Choose Matching Key in the Search For option buttons.
4. Choose Search.

If the match is found, the map entry is displayed in the same format as it appears in the NIS map.

Related Topics
Description of Common NIS Maps
Get a List of Partial Matches
List All Entries in an NIS map
Network Information Query Examples

Network Information Query - Get a List of Partial Matches

This feature is useful if you are not sure of the <u>NIS key</u> you need. You can use it to find the name of a <u>server</u> in the network, or the name of another <u>user</u> you are not sure of the exact spelling. You may search for a partial match by entering a series of characters to match. All entries in the NIS map that match are shown.

Get a list of partial matches

1. Enter the string you would like to match. The strings are case-sensitive.
2. Select the map from the list of Map names, or enter a name in the edit control.
3. Choose Partial String in the Search For option buttons.
4. Choose Search.

If matches are found the map entries are displayed in the same format as it appears in the NIS map.

Related Topics
<u>Description of Common NIS Maps</u>
<u>Network Information Query Examples</u>
<u>List All Entries in an NIS map</u>
<u>Search for Exact Match in An NIS Map</u>

Network Information Query - List All Entries in an Entire NIS Map

To list all entries in an NIS map

1. Select the map from the list of Map names, or enter a name in the Edit control.
2. Choose Entire Map in the Search For option buttons.
3. Choose Search.

All entries in the specified map are listed in the same format as it appears in the NIS map.

Related Topics
Description of Common NIS Maps
Get a List of Partial Matches
Network Information Query Examples
Search for Exact Match in An NIS Map

Network Information Query - Examples

These examples show how you might perform several common searches using Network Information Query.

To search for a server's IP address, when you know the name

1. Enter the name of the <u>server</u> you want in the Search For edit field. You must enter the key exactly. For example "Cto" and "cto" would be different entries.
2. Select the map `hosts.byname` from the list of map names.
3. Choose Matching Key in the Search For option buttons.
4. Choose Search.

The matching entry will be displayed in the Results list box.

To search for a RPC Name, when you know the RPC Number

1. Enter the number of the RPC service you want in the Search For edit field. You must enter the key exactly. For example 150001 is the RPC number for PC-NFS.
2. Select the map `rpc.bynumber` from the list of map names.
3. Choose Matching Key in the Search For option buttons.
4. Choose Search.

The matching entry will be displayed in the Results list box.

To search for a user name, when you are not sure of the spelling

1. Enter enough characters of the name in the Search For edit field so that you might match it.

    For example, you are trying to get the <u>user name</u> for Barb Nervski, but you are not sure if it's spelled Nervski or Nervsky. Your company usually uses first initial, last name as the user name. You might enter "er".
2. Select the map `passwd.byname` from the list of map names.
3. Choose Partial String in the Search For option buttons.
4. Choose Search.

All matches that are found are listed in the Results list box. With the characters you entered, you might also see other matches, like:

```
kerskine        #Kenny Erskine
ljerkiny        #Lisa Jerkiny
rmars           #Ruth Perskin Mars
as well as
bnervski        #Barb Nervski
```

You may have to try several times, using different characters, to find the match you want.

To search for all the mail aliases of which you are a member

Mail aliases are used for simplifying mailing to groups of people. For example, there may be mail aliases for special interest groups, such as "bowling-team", or for a project, "'release-3.2". You may want to review the mail aliases of which you are a member.

1. Enter your <u>user name</u> in the Search For edit field.
2. Select the map "mail.byalias" from the list of map names

3. Choose Partial String in the Search For option buttons.
4. Choose Search.

All of the mail aliases you are a member of will be shown.

Common NIS Maps
This section provides a brief description of commonly used NIS maps. Your system may not use all of these maps, and may provide others. It's important to realize that you may only need to use some of these maps.

Map Name	Key	Description
auto.home	<u>user name</u>	Location of the user's home directory
auto.vol	Name of volume	Location of a volume name
bootparams	<u>Server</u>	Boot parameters for diskless booting
ethers.byaddr	<u>Ethernet address</u>	Ethernet address and server name
ethers.byname	Server	Ethernet address and server name
group.byname	<u>Group name</u>	Group name, members by user name
group.byguid	<u>Group ID</u>	Group name, members by user name
hosts.byname	Server	Server and IP address
hosts.byaddr	<u>IP Address</u>	Server and IP address
mail.alias	<u>Alias name</u>	Alias Name, members of a mail alias
mail.byaddr	Expanded alias	Full mail address
netgroup.byhost	Server	Groups by host
netgroup.byuser	User name	Groups by user
netid.byname	Server	Network number for server
netmasks.byaddr	IP address	Network masks
networks.byaddr	IP address	Network name, address
networks.byname	Network name	Network name, address
passwd.byname	User name	User ID, user name, and other user data
passwd.byuid	<u>User ID</u>	User ID, user name, and other user data
protocols.bynumber	<u>Port Number</u>	Protocols, such as UDP and the associated port number
protocols.byname	<u>Protocol Name</u>	Protocols, such as UDP and the associated port number
rpc.bynumber	<u>RPC number</u>	RPC service number and name
services.byname	Service name	Service name, number,

	protocol	
ypservers	Server	NIS servers

Results of Search
This list box displays the NIS map entries that matched your search.

Search Button
Choose Search to begin a search in the selected NIS map.

Search For

If the Search For Option Button is set for	Enter
Partial Match	The characters you want to match
Matching Key	The exact key

In both cases, the matches are case sensitive.

Search for Option Buttons

Matching Key	To get an exact match of the characters in the Search For edit box
Partial Match	To get all matches for the characters in Search For edit box
Entire Map	To see the entire NIS map
*	

The Console Messaging Application - Table of Contents
The Console Messaging application lets you exchange short messages with other users on the network. To receive messages you must start the listener TSR from the DOS command line before starting Windows. Messages received will be displayed in the Console Messaging application's window.

Messages may be sent from the Console Messaging application running on an another PC, or from a UNIX workstation running the executable msgclnt .

Messages you send may be received in DOS by listener, in Windows by Console Messaging, or on UNIX machines running the UNIX executable msgserv.

Topics

Console Messaging - Sending Console Messages

To send messages

1. From the Message menu, choose New to compose a new message or choose Reply to reply to the current message. A Compose Message dialog box will appear.
2. Reply will pre-fill the Compose Message dialog with the name and machine of the sender of the message to which you are replying. You may modify this information.
3. Address the message to the user(s), machine(s), and terminal that you want to receive the message.
4. Enter the message and edit it if necessary.
5. Choose Send to send your message.
   Note: You will not be able to send a message if you have not started the TSR RTM before starting Windows. You will still be able to receive messages.

To cancel composing a message

1. Choose Cancel on the Compose Message Dialog

Console Messaging - Setting Notification Options
Console messages you receive are displayed in the Console Messaging application's window. You can determine whether you want additional notification that a new message has been received.

To set how you are notified when you receive a message

1. Choose the Options menu, then the menu item Notify.
2. The Notify dialog   box will appear. You may choose to have one, or several, forms of notification:

    Option   **Action**

    Beep   Beeps the number of times you specify.
    Flash   Flashes the Console Message application's
                        window the number of times you specify.
    Open Icon   Opens the application from an icon if it is currently
                        displayed as an icon.

3. Choose OK to save the options you have selected, or Cancel to retain your previous settings. Your changes will take effect when the next message arrives.

    Note: To receive a message, you must start the listener before starting Windows. You will still be able to send messages, if you have not started the listener

Console Messaging - Editing Console Messages
To edit messages that you are composing, you may use the features contained in the Edit menu:

Command	Action
Undo	Undoes the last Cut or Paste operation
Cut	Copies the selected text to the Clipboard, and removes it from the Edit area
Paste	Copies text from the Clipboard to the Edit area
Copy	Copies the selected text to the Clipboard and leaves it in the Edit area
Clear	Removes the text from Edit area, and leaves the Clipboard unchanged

You may also copy text from other Windows' applications and paste it into your message. The total length of a message cannot exceed   450 characters. You can send text using Console Messaging, but not graphics, or other specially formatted files.

Related Topics

Addressing Console Messages
Sending Messages

Console Messaging - Addressing Console Messages
You have a great deal of flexibility when   addressing your console message. You may send to anyone listening, or send a console message to a given <u>user name</u> on a given <u>server</u>. You can also send a console message to a specific server, or to a specific user, regardless of what server is being used.

In this context, server and machine are synonymous. Servers can also be PC's which are running the <u>listener</u> TSR.   Machine names can be entered either as a name, for example, . "ganges", or as an <u>IP Address</u>.

To send to	Choose To:	Choose At Machine:
All users on all machine	All	Anywhere
One user, anywhere	User Name	Anywhere
One user, at one machine	User Name	Enter name in At Machine
One machine	All	Enter name in At Machine

In all cases, you can optionally you can enter the terminal name. Terminal names are ignored on PCs.

Examples of addressing

To send to a single user

To send a message to Mary, who works on a machine named "reddog", you would enter her user name "msmith" in the User Name field, and her machine name   "mdog" in the At Machine field.

To send to all users
To send all users a message that you are planning on shutting down a shared printer, you would choose the option button All, and   the option button Anywhere.

Hint: - If you do not know a user's name, or the name of a machine, you may use the NIS Lookup application to get this information. See <u>NIS Lookup Examples</u> for details.

Related Topics
<u>Editing Message Text</u>
<u>Sending Messages</u>

PC-NFS Windows Applications - Table of Contents

The PC-NFS Windows applications include:

Console Messaging   Sends and receives short messages
FTP   Transfers files to and from FTP servers
Login   Sets the current login name
Network Statistics   Shows cumulative statistics for various protocols, such as the number of
                           packets sent and received for each networking protocol
Network Information Query Looks up user names, machine names, and other information in the NIS data
                           bases
Ping   Determines if a machine can be accessed on the network
Remote Service Status   Determines if a machine is running specified network RPC net services, such
                           as services for remote printing.
Telnet   Runs applications from a remote machine, using terminal emulation

LPR Client   Allows printing to non-PCNFSD and to unmounted printers

See Also
PC-NFS Networking
Getting Started

Press **F1** to get more information about How to Use Help.

The Ping Application
Use Ping to determine if a machine is accessible on the network. You may send a ping to any server or PC on the network. You can choose to whether to send a ping to a machine for a specified number of times, or indefinitely.

To send a ping for a specified number of times

1. Choose a machine name from the list of machines. If you know the name or <u>IP address</u> of the machine, you can enter it in the Machine field.

    Hint: If you do not have a list of machines and are running <u>NIS</u>, you can get a list of machines by choosing <u>Get Machines</u> from the Options menu.
2. Enter the number of times you want to send a ping to the machine in the Number of Times field.
3. Choose the Finite option button.
4. Enter how often, in seconds, to send the ping in the How Often? field.
5. Choose Start.

    The results of each ping sent to the machine are reported.   See <u>Ping Results</u> for a description of each field.

To send an indefinite series of pings

1. Choose a machine name from the list of machines. If you know the name or <u>IP address</u> of the machine, you can enter it in the Machine field.

    Hint: If you do not have a list of machines and are running <u>NIS</u>, you can get a list of machines by choosing <u>Get Machines</u> from the Options menu.
2. Choose Indefinitely.
3. Enter how often to send the ping in the How Often? field in seconds.
4. Choose Start.

    The results of each ping sent to the machine are reported, and pings are sent until you choose Cancel .See <u>Ping Results</u> for a description of each field.

To cancel an ongoing ping

You may cancel both types of ping requests. To cancel:

1.   Choose Cancel

See Also

<u>Ping Results</u>

Ping Results
Pick items below to learn more about each field.

```
┌ Packets ─────────────────────────────────────────┐
│ Transmitted: 7        Received: 7        % Loss:  0 │
│                                                    │
└────────────────────────────────────────────────────┘

┌ Round Trip in Milliseconds ──────────────────────┐
│ Last Trip:      Minimum:      Maximum:    Average: │
│      1              0              2           1    │
└────────────────────────────────────────────────────┘
```

Minimum
The shortest round trip time of a packet from your machine to the selected machine and back. Shown in milliseconds.

Maximum

The longest round trip time of a packet from your machine to the selected machine and back. Shown in milliseconds.

Average
The average successful round trip time of a packet from your machine to the selected machine and back. Shown in milliseconds.

Transmitted
The number of packets that have been sent to the selected machine.

Received

The number of packets returned by the selected machine. A returned packet indicates that the machine is successfully responding to network activity.

Last Trip
The round trip time of a packet from your machine to the selected machine and back for the last ping sent. Shown in milliseconds.

% Loss
The number of lost packets divided by the number of packets sent. This gives a sense of how well the machine is responding.

The Login Application

The Login Application lets you change which <u>user name</u> is your current login. This establishes how you may interact with the network, by establishing your access to files and your system privileges. The Login application displays your current user name and some summary information, your <u>User ID</u> and <u>Group ID's</u>.

To Login

1. Enter your user name in the User Name field.
2. Enter your <u>password</u> in the Password field.
3. Choose Change Login.

   You will be logged in with the user name you entered. If your user name or Password is invalid, you can try again.

To Logout

1. Choose the Logout button.

   Your user name will be set to "<u>nobody</u>". If you log in as nobody, you will have limited access to the network.

The Remote Service Status Application
The Remote Service Status application lets you find out which <u>RPC</u> based services are available on a given machine. Usually you use Remote Service Status to determine if a particular service, such as <u>PCNFSD</u>, <u>NIS,</u> or <u>MOUNTD</u> is available.

To see the status of all remote services

1. Choose a machine name from the list of machines. If you know the name or <u>IP address</u> of the machine, you can enter it in the Machine field.

    Hint: If you do not have a list of machines and are running <u>NIS</u>, you can get a list of machines by choosing <u>Get Machines</u> from the Options menu.
2. Choose the Show All option button.
3. Choose Show.

The daemon name and RPC number of all remote services running on the selected machine are displayed (if you are not running NIS, only the RPC numbers are shown.)

To see the status of one remote service

1. Choose a machine name from the list of machines. If you know the name or <u>IP address</u> of the machine, you can enter it in the Machine field.

    Hint: If you do not have a list of machines and are running <u>NIS</u>, you can get a list of machines by choosing <u>Get Machines</u> from the Options menu.
2. Choose the Show One option button.
3. Enter the number of the remote   service in the Number field, or select a service from a currently displayed list of services.
4. Enter the version number in the Version field.
5. Choose Show.

    You will be told whether that version of the remote service is running.

    Hint: If you do not know the number of the service you are looking for, you can use Network Information Query to examine the NIS database `rpc.bynumber`. See <u>Network Information Query</u>, and <u>Network Information Query Examples</u> for how to get a list of Remote Service Status. You can also look at the <u>Common Remote Services Numbers</u> Table.

Description of the Remote Service Status Results

<u>Program Number</u>　　　<u>Version</u>　　　<u>Protocol</u>　　　<u>Port</u>

Remote Services Status - Common Remote Services Numbers

RPC Number	Daemon Name	Description
100000	portmapper	Negotiates RPC services with client applications
100001	rstatd	Remote status daemon
100002	ruserd	Remote users daemon
100003	nfs	Network File Services
100004	ypserver	NIS server- Used to support NIS services
100005	mountd	Mount daemon - used to mount and dismount files systems
100007	ypbind	Used to bind to a NIS server
100008	walld	Supports rwall command
100011	rquotad	Used in storage on NFS servers
100012	sprayd	Used with spray diagnostic
100015	selection_svc	Used in running Open Windows
100020	llockmgr	Lock daemon - controls file sharing and locking
100021	nlockmgr	Network lock manager
100024	status	Status monitor
100026	bootparam	Used in diskless booting
100029	keyserv	Supports secure RPC
100068	SNMP	Simple Network Management Protocol
100087	admind	Used in network administration
150001	pcnfsd	PC-NFS daemon - provides authentication and print services

The Network Statistics Application
The Network Statistics Application provides summarized information about network data transfer to and from your machine. This information is organized by various protocols. You can run Network Statistics over a period of time to collect information about network activity for your machine. By default the statistics are updated every 5 seconds.

To modify frequency of statitics update

1. From the Menu Options, select Set Interval.

2. Enter how often you would like to have the Network Statistics updated in the Enter How Often to Update Statistic field. The value should be in seconds.
3. Choose OK. The frequency will change.

Authentication Server
A machine on the network that has software that verifies user privileges on the network.

Connect
To make a file system or printer on a network server accessible from your PC.

Connections
The drives and printers that are redirected to a server. These drives and printers are referred to by names such as N: and LPT2:, but are located on another machine in the network.

Console Message
A short message that can be sent to other users on your network. You can also receive console messages. Console messages can be sent from users of DOS, Windows, and UNIX.

Disconnect
To remove the link between a file system or printer on a server and your PC.

Domain
A named collection of machines on a network.

Ethernet Address
A six-part hexadecimal number that identifies an Ethernet communications adapter.

Export
To make a file system available on a file server so other machines can connect to it.

File Locking
A service that prevents simultaneous updates of the same file by different users.

File Permissions
Refers to the three types of file access on a file server: Read, Write, and Execute. As the owner of a file, you can grant all or some of these permissions to user groups.

File System

A location on a server, expressed as a path name, to which other machines can connect. For example, the server `whiz` might make two file systems available: `/usr` and `/my/own/stuff`. Available file systems are referred to as exported file systems.

FTP

File Transfer Protocol. The FTP application conforms to the File Transfer Protocol, letting you transfer files between machines on a network without regard to the operating systems of the machines involved in the transfer.

Gateway
A machine that provides a link between two networks.

Group ID
A unique number associated with a group name on a file server. Generally, the file server assigns your group ID to any files that you create.

Group Name
The name of a group of users. Members of a group share common file access privileges. The Group Name maps to a Group ID. For example "engineering" is a Group Name that might map to the Group ID 123. A user may belong to several groups.

IP Address
A number that uniquely identifies every computer connected to a TCP/IP network.

Listener
A TSR that "listens" for console messages being sent on the network. You must start the listener before starting Windows to receive messages.

Login
An application where you enter the user name to identify yourself on the network. Your user name is used to determine what rights and permissions you have as you perform network activities, as well as identify you to others using the network.

Mail Alias

A name that represents a group of mail addresses. For example, you may have a mail alias to include all of the engineers on a project, "eng", another for the writers, "writers", and yet another that combines the two groups, "next_release". When mail is sent to a mail alias, all the members of the mail alias recieve a copy of the mail message.

Mount daemon
A server program that performs mounts and dismounts (or connections and disconnections) to an NFS server.

Network Statistics
An application that displays statistics about the network, such as the number of packets sent and received.

Network Icon
An icon that appears in the Control Panel. This icon provides access to PC-NFS services, such as Login, and displays PC-NFS network specific information.

Network Information Query

A PC-NFS application that lets you look up information in network databases, such as user names, machine names, machine addresses, and other network data. This application uses NIS services.

NIS
A service that provides access to a set of network databases that contain information such as server names, IP addresses, and Ethernet addresses.

NIS key

An index to an entry to an NIS databse (also called a map). For example, in the map `hosts.byname`, the key is the name of a host machine, such as `greathost`. In the map `hosts.bynumber`, the key is the IP address of the machine, such as `126.148.4.22`.

NIS Map
A data file containing network information about various aspects of the network. For example, there are maps for hosts, groups, mail aliases, passwords (user IDs), protocols, and services. In addition, any domain may have additional maps to facilitate administering the network.

NIS Server
The server that currently supplies NIS services, such as the lookup of server names and addresses.

nobody

If you do not specify a user name when logging in to PC-NFS, you will be assigned the default user name `nobody`. The user name `nobody` has a minimum number of system privileges defined by the system administrator.

Password

A character string used to verify a user name. For example, a user name might be `tarzan`, and the password, `swinging`.

Print Queue

A list of the print jobs waiting to be printed on a given printer. The printer may be referred to either by its redirected name (for example LPT1:) or by its network name (for example *server:printer*), depending on the context.

PCNFSD
The PC-NFS services daemon. The PC-NFS services daemon runs on a server and provides services such as redirected printing. PCNFSD Version 2 supplies more print services than Version 1, and should be used in preference to PCNFSD Version 1.

Ping
The `ping` application lets you determine if your PC has a working connection to a network machine.

Port Number
The number of a port or logical communication channel on the network. Many services take advantage of well known ports for their activity.

Protocol
A defined interaction between network components. Many key features of networking are protocol-based, including TCP, UDP, NFS, NIS, `telnet`, and FTP.

Remote Services Status
Determines if a machine is running specified network RPC services, such as services for remote printing.

RPC (Remote Procedure Call)
A mechanism that allows client/server computing. The client program calls for procedures that a server application performs on another machine. The RPC protocol provides a definition for the interaction between the client and server.

RPC Program Name
The name of an RPC service, such as NIS, NFS, or the `lock` daemon. This name may vary across network implementations (it is dependent on how it has been defined in the services file). so the RPC Program Number is considered the definitive identifier.

RPC Program Number
The number of an RPC service. This is considered the key identifier of the service.

RPC Version Number
The RPC program version. Often several versions of an RPC program will be running. Use the version number to determine if you are running the correct version. For example, use PCNFSD version 2 to get more printing services than are available in PCNFSD version 1.

RTM
The Resident Transport Module. A TSR that is used by PC-NFS software, and that must be started before running Windows.

PC-NFS Group
 A group within the Program Manager that contains PC-NFS applications.

Server
A machine that provides resources to other computers on the network. Common server types are file servers, print servers, and FTP servers.

Subnet

A means of making the Ethernet address for small networks more efficient by splitting host numbers into two fields. Usually servers on your subnet are located close to you.

Telnet
An application that lets you log in to another computer, providing terminal emulation of that computer.

TSR
A Terminate-and-Stay-Resident program that remains in memory while relinquishing control of the PC to the user for running other programs.

User ID

A unique number associated with each user name. Generally, a file server assigns your user ID to those files that you create, as the owner of those files.

User Name
The character string with which you identify yourself to the network. Your name maps to your user ID. For example "tarzan" is a user name, which might map to the user ID 123.

Exit
Press Exit to leave an application.

System menu

Minimize button

The FTP Application - Table of Contents

The FTP application lets you transfer files between your local machine and a machine running an FTP server.

Menus
Select a menu item below to learn more about the contents of the menu.

Server   Options   Help

Topics

Overview   Summarizes the steps in a transfer
Procedure List   Shows a list of all procedures related to FTP

See Also
Map of Commands   For the FTP command line user, describes how to use the Windows application.

Press **F1** to get more information about How to Use Help.

FTP -   How to perform a transfer
A file transfer moves files from a remote machine to your local machine, or sends files from your machine to a remote machine. You can also delete files on and append files to the remote machine.

To perform a transfer of files, you must first <u>Connect to an FTP serve</u>r. This establishes a connection between the machines.

Next you must <u>Select Files to Transfer</u>. Based on the files you have selected, you want to Set Transfer Options. Transfer Options control the format of the file transfer, and whether you will be prompted during the transfer of files. Having set your transfer options, you can <u>Transfer your files</u>. You may repeat this sequence, copying, deleting, and appending files.

While you are connected, you can perform a number of tasks on the FTP server, using various <u>Server Options</u>.

When you are done, you can <u>Disconnect from the FTP server</u>.

FTP -   Connecting to an FTP server
Connecting to an FTP server establishes the link between your machine and another file server.

To connect to an FTP server

1. From the Server Menu, Choose Open.
2. A connection dialog is displayed.   Select a <u>server</u>   from the list of servers by clicking on it. If you do not have a list of servers and are running <u>NIS</u>, you can get a list of servers by choosing <u>Get Servers</u>. If you know the name or the <u>IP address</u> of the server, you can enter it in the edit field.
3. Enter a <u>user name</u> and <u>password</u>. The default is your current User Name as you are logged into the network. You may change this name. If you do, there is no change to your PC-NFS user name.

    Note: Check Anonymous Login if you wish to log in with the name "anonymous". The password will automatically be filled with your current user name.
4. If you wish to communicate via a specific Port on the FTP server, enter a <u>Port Number</u> in Send Port. Otherwise leave this field's default as 21.
5. Choose Connect to establish the connection.

To cancel an attempt to connect

1. Choose Cancel. The information you have entered is discarded, and you are returned to the main menu.

To start multiple FTP sessions

Each instance of FTP connects to one server at a time. If you wish to communicate with 2 or more servers:

1. Start FTP by double clicking on the FTP icon in the PC-NFS Group.
2. Connect to a server.
3. Repeat steps 1 and 2 for each simultaneous session you wish to run.

FTP -   Disconnecting From an FTP server
To close a connection to an FTP server you may either

1. Choose the Disconnect Button

or

1. Choose Disconnect from the Server Menu.

FTP -   Setting a Port
You can set a Port when you Connect to an FTP Server.

While performing the Connection, enter a Port number in the Send Port field. This Port number will be used throughout the session.

FTP -   Sending a String directly to an FTP server
You may send a direct command to the FTP server. To do so, your PC must be connected to a server.

To send a string

1. From the Options Menu, choose Quote. This will bring up the Quote dialog.
2. Enter the string you want to send in the input field, and choose Quote to send the string.   The response from the server will be displayed.

   (Quote commands that require a data connection, such as `STOR`, `NLST` and `LIST`, will not work with the PC-NFS version of FTP.)

To dismiss the Quote dialog

1. Choose Cancel. The dialog will be dismissed.

FTP -   Show Current Settings

You may get a summary of Current Settings for this session of FTP. You do not have to be connected to a server.

To view current settings

1. From the Options Menu, choose Settings. This will bring up a dialog   that displays the current status of your FTP session.

FTP -   Making a Directory
You may create a directory on the FTP server or on one of your local drives.

To create a directory locally

1. From the Server Menu, choose Make Directory, then choose the menu item Local. This will bring up a dialog box.
2. Enter a path to the directory you wish to create, using DOS format. For example:
    `\new\dir` or `c:\netfiles`
3. Choose OK.

To create a directory on the FTP server

To do so,   your PC must be connected to a server.

1. From the Server Menu, Choose Make Directory, then choose the menu item Remote. This will bring up a dialog box.
2. Enter a path to the directory you want to create. The path you enter should be in the syntax appropriate for the server to which your PC has a connection. For example, for a UNIX server, you might enter
    `/new/unix/directory`
4. Choose OK.

FTP - Removing a Directory

You may remove a directory on the FTP server or on one of your local drives.

To remove a directory locally

1. From the Server Menu, choose Remove Directory, then choose the menu item Local. This will bring up a dialog box.
2. Enter the directory you wish to remove, using DOS format. For example:

   `\new\dir` or `c:\netfiles`
3. Choose OK.

To remove a directory on the FTP server

To do so, your PC must be connected to a server.

1. From the Server Menu, Choose Remove Directory, then choose the menu item Remote. This will bring up a dialog box.
2. Enter the directory you wish to remove. The path you enter should be in the syntax appropriate for the server to which your PC has a connection. For example, for a UNIX server, you might enter

   `/new/unix/directory`
4. Choose OK.

FTP - Changing Directory
You may change directory on the FTP server or on one of your local drives.

To change a directory locally

1. From the Server Menu, choose Change Directory, then choose the menu item Local. This will bring up a dialog box.
2. Enter a path to the directory you wish to go to, in DOS format. For example:
   `\new\dir` or `c:\netfiles`
3. Choose OK.

To change to a different directory on the FTP server

To do so, your PC must be connected to a server.

1. From the Server Menu, choose Change Directory, then choose the menu item Remote. This will bring up a dialog box.
2. Enter a path to the directory to which you wish to change. The path you enter should be in the syntax appropriate for the server to which your PC has a connection. For example, for a UNIX server, you might enter:
   `/new/unix/directory`
4. Choose OK.

or
1. You can choose the Change Dir button, and follow steps 2 through 4 for either local or remote directories.
2. If you double-click your mouse button on the name of a directory displayed in a directory list box, FTP will change to that directory.

FTP -   Changing User Name
During an FTP session you may want to change your <u>user name</u> without disconnecting from the session.
To do so, you must be connected to a server.

To change user name

1. From the Options Menu, Choose Change User. This will bring up a Login dialog box.

2. Enter the new user name and <u>password</u>.

3. Choose OK to confirm your Login.

    If there is a problem with your Login, you will be returned to the Login dialog box, and given another chance to Login

    If your Login is successful, you will be returned to the session.

To cancel changing user name

1. Choose Cancel.

FTP -   Determining What Commands an FTP server Supports

Each FTP server may support a different subset of FTP commands. This may cause the server to be unable to execute certain features. If you need to determine what commands your current FTP server supports, you may do so by using the Remote Help feature. You can also get help for an individual command.

To determine what commands an FTP server supports

1. If you have not already done so, <u>Connect to the Server</u>.
2. From the Server Menu, choose Remote Help.
3. Choose Show Commands Supported by the Server
4. Choose OK. A list of the commands supported by that server will be displayed.

To get help for a specific FTP command

1. If you have not already done so, <u>Connect to the Server</u>.
2. From the Server Menu, choose Remote Help.
3. Choose Get Help for Command, and enter the name of the command in the input field. For example enter

    `pwd`
4. Choose OK. The   FTP server's help for that command will be displayed.

FTP -   View a Remote Directory Listing
The Directory Listing format shows more detail about the remote directory.

To see a remote directory listing

1. If you have not already done so, <u>Connect to the Server</u>.
2. From the Server Menu, choose Directory Listing.
3. Enter the path to the directory you wish to see, and any wild carding that you wish. For example, to see the `/new/files` directory, you could enter either

    `/new/files`

or

    `/new/files/*`

4. Choose OK
5. A directory listing will be displayed.

FTP -   Appending one File to another
Appending a file concatenates the selected file to another file. You may append a local file to a remote one.

To append a file

1. Select a file. An arrow will appear to indicate the direction of the proposed transfer.
2. Verify that the <u>Transfer Options</u> (beep, Transfer As) are configured appropriately.
3. Choose the Append button.
4. If confirmation is turned on for Append, you will be asked to confirm the directory and name of the file targeted for the append operation. The default is to use the same file name in the current directory on the file system to which you are moving the file.
5. While the transfer is in progress, the status of the transfer is displayed.

To cancel an append
You can not cancel an Append.

See Also
<u>Selecting Multiple Files</u>
<u>Setting Confirmation Options</u>

FTP -   Copying files

Copying a file duplicates the selected file to the other file system. You may copy a local file to a remote one, or a remote file to a local one. Copy can be accomplished by using Copy, which assumes that you want to use the same name, or Copy As, which will prompt you for a new name for the file. Use Copy As to transfer a UNIX file that uses a file name that does not conform to DOS file naming conventions. Specify a DOS-conforming file name in the destination file input box.

Note: Copy, Copy As, Append, Delete, and Rename can only be used with files, not directories.

To copy files

1. Select a file in either the local or remote list of files. An arrow will appear to indicate the direction of the proposed transfer.

   Note: Copy As can only be used with one file at a time.
2. Verify that the Transfer Options (Transfer As, beep) are configured appropriately.
3. Choose the Copy button.
4. If confirmation is turned on for Copy, you will be asked to confirm the directory and name of the file you have selected. If you are doing a Copy As, you are always prompted for a directory and name.
5. While the transfer is in progress, the status of the transfer is displayed.

To copy files from File Manager

The FTP application can accept files selected in File Manager, and dropped on it. To use Drag and Drop:

1. Connect to the FTP server to which you wish to transfer files.
2. Start File Manger.
3. Use File Manager to find and select files that you wish to transfer to the FTP server.
4. Drag the files from File Manager to the FTP application.
5. FTP will copy the selected files using the current Transfer Options.

To cancel a copy

If you are copying multiple files, you can cancel the copy operation.
1. If prompting is on, you can either choose cancel to cancel the copying of the remaining files, or chose No to skip copying this file.
2. If prompting is off, a transfer status dialog will be displayed. If you want to cancel, you can choose Cancel.

The copy will be canceled, but any files that have already been copied will exist on the target file system.

See Also
Selecting Multiple Files
Rename
Setting Confirmation Options

FTP -   Deleting files

Deleting a file removes it from its file system. You may delete local and remote files.

To delete files

1.   Select one or several files.
2.   Choose the   Delete button.
3.   If confirmation is turned on for Delete, you will be asked to confirm the deletion.
4.   While the Deletion is in progress, the status of the transfer is displayed.

To cancel a delete

If you are deleting multiple files, you can cancel the delete.

1.   Choose Cancel.

The delete will be canceled, but any files that have already been deleted can not be restored.

See Also
Selecting Multiple Files
Setting Confirmation Options

FTP -   Renaming Files

Renaming a file changes the name of the file. Rename does not support the simultaneous moving of that file. You may rename local   files only.

To rename a file

1.   Select a file. You may not select multiple files for rename.
2.   Choose the Rename button.
3.   You will be prompted for the new name.

To cancel an rename

You can not cancel a rename.

See Also

Selecting Multiple Files
Copy, Copy As

FTP -   Setting Transfer Options
You may configure the format of the file transfer. You may also configure the system to beep when the transfer is complete.

Setting transfer format

1. Choose one of the three transfer formats
    ASCII   A plain text file format
    Binary   Preserves special characters - Should be used to transfer executables, `.com` files
    Tenex   The representation type needed to talk to TENEX machines

There is no special checking on the selections to determine if this is appropriate. For example, if you select a `.exe` file and select ASCII as the transfer type, you will not be notified.

This format will be in effect until you change it or close the connection.

Beep on end of transfer
If you would like to be notified at the end of the transfer:

1.   Check the Beep check box.

FTP -   Selecting multiple file names
You may want to select more than one file at a time. You may do so using either the mouse or the keyboard. Position your cursor within the list box, and use one of the following procedures:

Using the mouse

To select two or more items in sequence

1   Click the first file or directory you want to select.
2   Press and hold down SHIFT while you click the last file or directory in the group.

To select two or more items out of sequence

   Press and hold down CTRL while you click each file or directory.

To cancel a selection

   Press and hold down CTRL while you click the selected file or directory.

Using the keyboard
To select two or more items out of sequence

1   Use the arrow keys to move to the first file or directory you want to select.
2   Press and release SHIFT+F8. The selection cursor begins to blink.
3   Move to the next item you want to select.
4   Press the SPACEBAR to select each file or directory.
5   Press SHIFT+F8 when you finish selecting files.

To cancel a selection

1   Press and release SHIFT+F8 so that the selection cursor begins to blink.
2   Move to the selection you want to cancel, and then press the SPACEBAR.
3   Press SHIFT+F8 when you finish canceling selections.

FTP -   Map of FTP commands
This section is for the FTP user familiar with the syntax used in command line FTP. It provides a mapping between the FTP commands and the FTP application's user interface.

FTP Command	Topic
append	Appending one File to another
ascii	Transfer Options
bell	Transfer Options
binary	Transfer Options
bye	Use Exit to exit the FTP application
cd	Change the working directory on a remote machine
close	Closing an FTP session
delete	Deleting a File
debug	Not supported in Windows
dir	View a Remote Directory Listing
form	Set to "non-print"
get	Copying files
glob	List boxes display files
hash	Status of transfer will always be displayed
help	Use the Help system
lcd	Change local directory
ls	List of the current remote directory is displayed
mdelete	Deleting Files
mdir	View a Remote Directory Listing
mget	Copying files
mkdir	Make a directory
mls	List of the current remote directory is displayed
mode	Is set to stream
mput	Copying files
open	Connecting to an FTP server
prompt	Setting Confirmation Options
! (go to DOS)	Use Windows to go to DOS
put	Copying files
pwd	Current directory is displayed.
quit	Use Exit to exit the FTP application
quote	Sending a string to a server
recv	Copying files
remotehelp	Determining what commands a server supports
rename	Renaming Files
rmdir	Deleting Files and Directories
status	Show current settings
sendport	Connecting to an FTP server
struct	Set to file
take	Not supported in Windows
tenex	Transfer Options
type	Transfer Options
user	Changing User Id
verbose	Not supported in Windows
?	Use the Help System

FTP -   Confirmation on Transfer

You can set whether or not you will be asked to confirm a transfer on Copy, Delete, Append, and file Overwrites. To change the confirmation settings, choose Set Confirmation... from the Options menu. Then

1.   Select Copy, Append, Rename, or Overwrite if you want to be asked to confirm whether to continue when you are performing a file operation.
2.   Remove the selection if you don't want to be prompted.
3.   Choose OK to save the changes, or Cancel to revert to the previous settings.

To see current confirmation settings, you can Show current settings,

FTP -   Connecting and Disconnecting

FTP - Transfer

FTP -   Server Features

FTP - Procedures

Server Menu

Open...   Opens a connection to an FTP server
Disconnect   Closes a connection with an FTP server
Make Directory... Makes a directory on the FTP server
Change Directory...   Makes a directory on the FTP server
Directory Listing...Lists files in a directory format
Remote Help...   Shows commands supported on the FTP server
Exit   Exits the application

Options Menu

Quote...   Lets you send a string to the FTP server
Change User...   Lets you change your User ID
Display Settings
Confirmation...   Configure Confirmation (prompting) on Transfer
Get Servers...   Gets a list of Server Names to use during Connection

Help Menu

Contents	FTP Help Table of Contents
Search	Search functionality in the Help System
Using Help	Help description of how to use help
About...	Shows the About dialog

Minimize and maximize boxes

System menu

LPR Client Overview

Use the LPR Client application to print to a printer that is:

* Not served by a server that is running the PCNFSD daemon
* Not connected in the current PC-NFS session

The first time you use LPR, you must enter your user name. Your user name is attached to each job you print.

You must also define a printer/server combination. If you want to use LPR with several printers, you can define more than one LPR printer/server combination and designate one as the default LPR printer. The default printer will be the current printer each time you start the LPR application.

To print a file, you can use the LPR File to Print dialog box to select a file for printing, or you can drag a file from File Manager and drop the file on the open or minimized LPR application.

Use the LPR Client main window to initiate the following operations:

Printing a file
Deleting a print job that you own
Setting print queue refresh options
Refreshing the current queue information
Configuring an LPR printer

Printing a File

To print a file using the LPR Client:

1. Double-click the LPR icon in the PC-NFS Group.

   The LPR dialog opens.

NOTE: If this is the first time you've used LPR, the Enter User Name dialog opens. If this is the case, enter your user name in this dialog and click OK.

2. Click Print File.

   The File to Print dialog opens.

3. Locate and select the file to print.

4. Click OK.

   The file is sent to the current LPR printer.

NOTE: You can also print a file by dragging it from File Manager and dropping it on the minimized LPR application.

Selecting a Defined LPR Printer

To assign a defined LPR printer as the current LPR printer:

1. Double-click the LPR icon in the PC-NFS Group.

   The LPR dialog opens.

2. Open the Current Printer drop-down list and click on a printer name.

   The selected printer becomes the current printer. This is the printer used by
   LPR for subsequent print operations.

NOTE: If no printers appear in the Current Printers list, you must define an LPR printer by configuring it. If
this is the case, click Configure, enter a printer name and a host name, and click Add.

Deleting a Print Job From a Printer Queue

To delete a job you own from a print queue:

1. View the queue of the printer where the job is spooled.

   Note the job number of the job you want to delete.

2. Click Delete Jobs.

   The Delete LPR Print Job dialog opens.

3. Enter the number of the job you want to delete in the Print Job ID edit box.

4. Click OK.

   The Delete LPR Print Job dialog closes and the job is removed from the print queue.

Set a Refresh Queue Interval

To set print queue refresh options:

1. Double-click the LPR icon in the PC-NFS Group.

   The LPR dialog opens.

2. Open the Queue menu and choose Set Refresh.

   The LPR Queue Refresh Options dialog opens.

3. Set the refresh interval by entering a value between 1 and 99 in the Refresh Interval edit box.

4. Select a job information option button.

   a. Click the Get All Jobs button to view information about all jobs in a printer's queue.

   b. Click the Get Mine Only button to view information about only your print jobs.

5. Click OK.

   Your queue refresh settings are saved.

Refresh the Queue Now

To refresh current queue information:

1. Click Refresh.

   The queue information updates to reflect the present queue status.

Configuring an LPR Printer

To Configure an LPR printer:

1. Click Configure.

    The Configure   LPR Printer dialog opens.

2. Enter the name of an LPR printer in the Printer name edit box.

3. Enter the name of the host associated with that printer in the Host name edit box.

4. Optionally, enter a comment in the Comment edit box.

5. Click Add.

    The LPR Printer Options dialog opens.

6. To assign the printer you just defined as the default LPR printer, click the Save as Default... check box. Alternately, click OK.

    The printer is added to the Network Printers Defined list and is available for use.

Configure LPR Printer Options Dialog

Use this dialog to:

[Add a printer to the Network Printers Defined list](#)

[Delete a printer from the Network Printers Defined list](#)

[Assign a printer as the default printer](#)

Add Printer

To add a printer to the Network Printers Defined list:

1. Enter the printer's name in the Printer name edit box.

2. Enter the host name of the printer's server in the Host name edit box.

3. Optionally, enter a comment in the Comment box.

4. Click Add.

   The LPR printer Options dialog opens, allowing you to designate this printer as the default LPR printer.

5. Click OK.

   The LPR Printer Options dialog closes, the printer is added to the Network Printers Defined list, and the printer is made the current printer.

Remove a Printer

To delete a printer from the Network Printers Defined list:

1. Click on a printer in the Network Printers Defined list.

   The printer name is highlighted.

2. Click Delete.

   The printer is removed from the Network Printers Defined list and is no longer available.

NOTE: You cannot delete the current printer. If you try to, an information box opens informing you that cannot complete this task. To delete a printer assigned as the current printer, change the current printer assignment and then delete the printer.

Assign Default Printer

To assign a printer as the default printer:

1. Click on a printer in the Network Printers Defined list.

   The printer name is highlighted.

2. Click Options.

   The LPR Printer options dialog opens.

3. Check the Save as Default Printer at Startup check box.

   An X appears in the box.

4. Click OK.

   The LPR Printer options dialog closes.

5. Click Close.

   The Configure LPR Printers dialog closes and the printer you've assigned
   becomes the default printer.

LPR Network Printers Dialog

Use this dialog to :

Select a printer from the list of defined printers

Delete a printer from the list of defined printers

Assign a default LPR printer

Select a Printer

To select a printer and make it the current printer:

1. Click on a printer name appearing in the Network Printers Defined list.

2. Click Select.

   The LPR Network Printers dialog closes and the selected printer appears
   as the Current Printer in the display area on the LPR main window.

Delete a Printer

To delete a printer for the Network Printers Defined list:

1. Click on a printer name appearing in the Network Printers Defined list.

2. Click Delete.

The printer is removed from the Network Printers Defined list and is no longer available for use.

LPR Queue Refresh Options Dialog

Use this dialog to specify:

[The type of job information returned by LPR](#)

[The frequency of information updates](#)

Jobs Information

To view information about all jobs in a printer's queue:

1. In the Jobs Information panel, click the Get All Jobs option button.

2. Click OK.

As of the next update, LPR displays information about all jobs in the print queue.

To view information about your print jobs:

1. In the Jobs Information panel, click the Get Mine Only option button.

2. Click OK.

As of the next update, LPR displays information about your jobs only.

Updating the Queue Interval

To set the queue information refresh interval:

1. Enter a value between 1 and 99 in the Refresh Interval edit box.

2. Click OK.

The refresh interval is changed to the interval you've specified.

Delete LPR Print Job Dialog

Use this dialog to remove a print job from a print queue. You must own the job in order to delete it.

To delete a job from a print queue:

1. Note in the LPR dialog the job number of the job you want to delete.

2. Click Delete Job.

   The Delete LPR Print Job dialog opens.

3. Enter in the Print Job ID edit box the job number of the job you want to delete.

4. Click OK.

   The Job is deleted from the Printer queue and the Current Queue Information box in the LPR dialog updates to reflect this change.

LPR Printer Options Dialog

Use this dialog to designate the default LPR printer. The default LPR printer is the printer that is assigned as the current printer whenever your start the LPR Client application.

To designate a printer as the default printer:

1. In the Configure LPR Printer dialog, select a printer from the Network Printers Defined list, or enter a printer name and host name in the appropriate edit boxes.

2. Click Options.

   The LPR Printer Options dialog opens displaying the name of the selected printer/host.

3. Click the Save as Default at Startup check box.

   An X appears in the box.

4. Click OK.

   The LPR Printer Options dialog closes.

5. Click Close to exit the Configure LPR Printer dialog.

   The printer you've indicated is assigned as the default LPR printer and is the current printer when the LPR application is started.

Job number

The *job number* is also called the *print job ID* number. You'll see it displayed in the LPR Client main window Current Queue Information display area.

Host

A host, or host machine, is also known as a server. A printer must be controlled by a server computer.

User Name

The User Name edit box lets you notify LPR Client who owns the print jobs it will control. The user name you enter is your assigned PC-NFS user name.

For example, if your PC-NFS user name is `myname`, enter that name into the edit box.