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Step-by-Step Instructions

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Concepts

FTP Server

What is an FTP Client Application? What are Local and Remote Hosts? What is a Logical Drive? What is a Password File? What is a Session? What is User Information?

Server Control Commands

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What is FTP Server?

When you start FTP Server on your PC, other network users can transfer files to and from your PC using an FTP (File Transfer Protocol) client application, such as FTP.

Caution: When you start FTP Server on your PC, any network user can access your files, unless you configure the server to write-protect your files or authorize transfer only for specified users.

Use the Configure FTP Server command in the Settings menu to set configuration options for FTP Server. These options let you

- Define which users can access FTP Server on your PC.
- Protect access to files on your PC when FTP Server is running.
- Close inactive FTP connections to a remote host.
- Select the type of status information that the FTP Server Logging Information box displays.

Related Topics

<u>Configure the FTP Server</u> <u>The Settings Menu</u> <u>What is an FTP Client Application?</u>

What is an FTP Client Application?

An FTP client (such as FTP) lets you transfer files between your computer and a remote computer that is running an FTP server (such as FTP Server).



In addition, you can use FTP to perform several common file management tasks both locally and remotely. You can

- View and change directories on local and remote systems.
- View the contents of text files.
- Change filenames.
- Delete files.

Related Topics

What is an FTP Server?

What is a Session?

A session is the set of parameters that define how your application interacts with a <u>remote host</u> during a <u>connection</u>. Server Control lets you customize and save information about a <u>session</u> so that you can reuse the same server configuration again later.

Note: When you delete a session, it is no longer available to any other application.

Related Topics

Configure FTP Server Start a Server Automatically

What are Local and Remote Hosts?

When you activate an FTP server on your PC, other network users can use FTP client applications on their PCs to access your files and directories remotely.

When other network users use an FTP client application to transfer files to and from your PC, your PC is considered the remote host.

Likewise, when you access another computer on the network that is acting as a server, that server is considered the <u>remote host</u>, and your PC is considered the local host.

Related Topics

What is an FTP Client Application? What is an FTP Server?

What is a Password File?

The FTP Server password file contains user access information, including the login directory name, an encrypted form of the user's password, and a list of directories the user is authorized to access.

Entries in the password file have the form:

username:encrypted_passwd:userID#:groupID#:realname: login_drive;\:logical_drive1, logical_drive2

The following example shows a password file entry for Chris Smith. Drive D identifies Chris' login directory; drives D and I specify each <u>logical drive</u> that Chris can access.

```
chris:h8HD/.7:2002:16:Chris Smith:D;\:
D,I
```

Related Topics

Limit User Access to Specific Directories What is a Logical Drive?

What is a Logical Drive?

A logical drive is a configured drive letter that represents a directory on a real, physical drive. For example, you could configure logical drive G to represent the C:\SALES directory on your PC.

You can use logical drives to limit remote FTP users' access to particular directories on your PC. To do this, you must first use the DOS **subst** configure a directory as a logical drive. Then, when you configure the user, specify the logical drive letter in the Drive Restrictions section of the User Information dialog box.

In Windows, you must execute the subst command before you start Windows.

For more information, see the DOS subst command in the MS-DOS Technical Reference.

Related Topics

Limit User Access to Specific Directories What is a Password File?

Configure FTP Server

•	
Select this	To do this
Write-Protect Mode	Let remote users read and copy files from your PC, but it does not let them edit or delete these files on your PC.
Allow Connection Time	out
	Close an inactive connection to a remote host after the connection is idle 5 minutes.
Logging Level	Specify which status messages to display.
	Select Error Only to display only error messages in the FTP Server Logging Information window.
	Select Normal to display basic information about FTP connections and remote users in the FTP Server Logging Information window.
	Select Debug to display detailed information about FTP connections and remote users in the FTP Server Logging Information window.
	Note: This information includes a description of connections that are established and broken, and the identities of users who connect to and disconnect from the FTP Server.
Use Password File	Limit access to the server PC to users specified in the password file.
Users	Specify which users can gain access to your PC.

To configure FTP Server, choose the following options:

Dialog Box Items

Write-protect mode (read only) Allow Connection Timeout Use Password File

Logging Level

<u>Users</u>

Related Topics

Limit User Access to Specific Directories Limit Access to Your PC What is a Logical Drive? What is a Password File? Write-Protect Files on Your PC

Limit User Access to Your PC

- 1. From the Settings menu, choose Configure FTP Server.
- 2. In the FTP Server Configuration dialog box, select the Use Password File option to identify a password file.
- 3. To view or change the names of users who can access your files with FTP Server, choose the Users button.

If you already have a copy of a password file on your PC, the Users dialog box displays the user entries in that file.

Note: The password file for FTP Server differs from a standard UNIX password file in that the file entries can include an extra line to support FTP Server. The extra line specifies each <u>logical drive</u> (file system) that the remote user can access.

Related Topics

<u>Configure FTP Server</u> <u>Limit User Access to Specific Directories</u> <u>What is an FTP Client Application?</u> <u>What is a Logical Drive?</u> <u>What is a Password File?</u> <u>Write-Protect Your Files</u>

Limit User Access to Specific Drives

- 1. In the FTP Server Configuration dialog box, choose the Users button.
- 2. Add or modify the user as you normally would. In the Drive Restrictions box of the User Information dialog box, specify the drive or drives to which you want to grant the user access. Separate multiple drive letters with commas, semicolons, or spaces.

Note that you can further restrict access to only specific directories on a drive by creating logical drives with the DOS **subst** command, then specifying those logical drives in the Drive Restrictions box.

Related Topics

What is a Logical Drive? Limit User Access to Specific Directories Configure FTP Server What is a Password File? Write-Protect Your Files

Limit User Access to Specific Directories

1. Use the DOS **subst** command to create a logical drive for a directory to which you want to grant the user access.

On a Windows system, you must do this before you start Windows.

For example, the following commands configure the logical drive G to represent the C:\SALES directory, and drive H to represent the C:\RECORDS directory.

C:> subst G: C:\SALES

C:> subst H: C:\RECORDS

- 2. In the FTP Server Configuration dialog box, choose the Users button.
- 3. Add or modify the user as you normally would. In the Home Directory box, specify the drive and path that you want to be the user's default login directory. This can be a path on a logical drive or a physical drive. For example, the following path sets the default home directory as the \MONTHLY directory, which is a subdirectory of the C:\SALES directory configured as logical drive G:

G:\MONTHLY

- 4. In the Drive Restrictions box of the User Information dialog box, specify the logical drives that you have defined.
- 5. Choose OK when you are finished configuring the user.

Related Topics

Configure FTP Server Limit Access to Your PC What is an FTP Client Application? What is a Logical Drive? What is a Password File? Write-Protect Your Files

Write-Protect Your Files

To protect files on your server PC from change, select Write-Protect Mode in the FTP Server Configuration dialog box.

You display the FTP Server Configuration dialog box by choosing the Configure button on the toolbar or Configure FTP Server from the Server Control Settings menu.

Related Topics

<u>Configure FTP Server</u> <u>Limit User Access to Specific Directories</u> <u>Limit Access to Your PC</u> What is an FTP Client Application?

Monitor FTP Server Status

Choose these options to specify the type of information to display in the FTP Server Logging Information window.

Choose this box	To display this information
Connections	The number of FTP connections currently open to the PC, and the total number of FTP connections made to the PC during the current session.
Transfers	The number of files and the number of bytes received and sent by FTP Server during the current FTP server session.
Logging Information	Error messages, connection information, and remote user information.
	The type of information that the Logging Information box displays is determined by the logging level that is configured in the FTP Server Configuration dialog box.

Dialog Box Items

Connections Transfers Logging Information

Related Topics

Configure FTP Server

Start FTP Server

- 1. From the Server Control main window, select the FTP Server icon.
- 2. From the Commands menu, choose Start FTP Server. --or--

From the Server Control toolbar, choose the Start button.



The icon name now contains the word Active. The server is ready to transfer files.

Related Topics

Monitor FTP Server Status Start a Server Automatically Stop FTP Server

Stop FTP Server

- 1. From the Server Control main window, select the FTP Server icon.
- 2. From the Commands menu, choose Stop FTP Server. --or--

From the Server Control toolbar, choose the Stop button.

The icon name now contains the word Inactive.

Related Topics

Monitor FTP Server Status Start FTP Server

What is User Information?

The Users dialog box displays a list of users who are authorized to use the server. The username and corresponding full name of each authorized user appears in the Configured Users box.

The server stores user information in a database file called a password file. Only users defined in the password file can use the server. The server creates a password file for you when you add users.

Note: To use a password file to manage the access to your PC, you must set the Use Password File option in the FTP Server Configuration dialog box.

Use the Users dialog box to provide information about new users, to modify information about existing users, or to delete users.

Dialog Box Items

Configured users

Add Modify Delete

Related Topics

<u>Add a User</u> <u>Delete a User</u> <u>Specify User Information</u>

Specify User Information

- 1. From the Settings menu, choose Configure FTP Server. Then, in the FTP Server Configuration dialog box, choose Users.
- 2. In the User Information dialog box, type the user's login name (or username).
- 3. Type the user's real name.
- 4. Type a password for the user.
- 5. In the Confirm Password box, retype the password to ensure its accuracy.
- 6. In the User ID box, the server provides the next available user ID number. If you prefer that the user have a different ID number, enter the preferred ID number.
- 7. In the Group ID box, type the user's primary group ID number.

A group ID is not required. However, you can create a group ID to allow users with similar needs access to the same file systems and printers. For example, everyone in the sales department might have the same group ID.

- 8. In the Home Directory box, type the path of the directory that will serve as the user's default login directory.
- 9. In the Drive Restrictions box, specify the drive or drives to which you want to grant the user access. Separate multiple drive letters with commas, semicolons, or spaces. When this box is blank, the user can access all drives.
- 10.Choose OK.
- 11. Choose Configure FTP Server in the Settings menu of Server Control main window to verify that the Use Password File option is on.

Dialog Box Items

User's login name Full name Password Confirm password User ID Primary group

Home directory Drive restrictions

Related Topics

Limit User Access to Specific Drives Limit User Access to Specific Directories Add a User Delete a User

Add a User

- 1. From the Settings menu, choose Configure FTP Server. Then, in the FTP Server Configuration dialog box, choose the Users button.
- 2. In the Users dialog box, choose the Add button.

A User Information dialog box appears.

- 3. Type the user's login name.
- 4. Type the user's real name.
- 5. Type a password for the user.
- 6. In the Confirm Password box, retype the password to ensure its accuracy.
- 7. In the User ID box, the server provides the next available user ID number. If you prefer that the user have a different ID number, enter the preferred ID number.
- 8. In the Group ID box, type the user's primary group ID number.

A group ID is not required. However, you can create a group ID to allow users with similar needs access to the same file systems and printers. For example, everyone in the sales department might have the same group ID.

- 9. In the Home Directory box, type the path of the directory that will serve as the user's default login directory.
- 10. In the Drive Restrictions box, specify the drive or drives to which you want to grant the user access. Separate multiple drive letters with commas, semicolons, or spaces. When this box is blank, the user can access all drives.
- 11. Choose OK.
- 12. Choose Configure FTP Server in the Settings menu of Server Control main window to verify that the Use Password File option is on.

Related Topics

Delete a User Specify User Information

Delete a User

- 1. In the FTP Server Configuration dialog box, choose the Users button.
- 2. From the Configured Users box of the Users dialog box, select a user. The name appears highlighted.
- 3. Choose Delete.

You are prompted for confirmation.

4. Choose OK.

Related Topics

Add a User Specifying User Information

Start a Server Automatically

- 1. From the Windows Program Manager, select the Server Control icon.
- 2. From the File menu, choose Properties.

A Program Item Properties dialog box appears.

3. In the Command Line box, add the session (-s) command line option as

-s session-name.

For example, for an FTP Server session named "pcserv" the command line would be

c:\pctcp\ctlapp -s pcserv

4. Choose OK.

Server Control now opens this session when you start the Server Control application. To start the session when you start up your PC, copy the Server Control icon into your PC's Startup program group.

Related Topics

Prevents remote users from deleting or altering files on your server PC.

Closes a connection to a remote host after the connection has been idle.

Limits access to the server PC to users specified in the password file.

The button you select determines the information that the FTP Server displays in the Logging Information box of the FTP Server status window. **Error**: Displays error messages.

Normal: Displays information about FTP connections and associated remote users.

Debug: Displays additional information about FTP connections and about associated remote users. This information includes a description of connections that are established and broken, and the identities of users who connect to and disconnect from the server.

Specifies which users can access your PC remotely. You can add, modify, or delete this information.

Type the full path of the directory into which you want a user to be sent when they connect. Type a comma-separated list of drive letters for which you want the user to have access (for example, a,b,c). When no list is specified, the user can access all drives.

Displays error messages.

Displays information about FTP connections and associated remote users.

Displays additional information about FTP connections and about associated remote users.

This information includes a description of connections that are established and broken, and the identities of users who connect to and disconnect from the server.

The number of FTP connections currently open to the PC, and the number of FTP client connections made to the PC during the current session.

The number of files and the number of bytes received and sent by FTP Server during the current FTP server session.

Error messages, connection information, and remote user information.

The type of information that the Logging Information box displays is determined by the logging level that was selected in the FTP Server Configuration dialog box.

Add, modify, and delete information about users who are authorized to access the server.

Indicates the current default user setting. Modifies user information. Adds users that are authorized to transfer files to and from this PC. Removes the user from the list of users that are authorized to transfer files to or from this PC. Sets this user as the default. Enter the user's login name. Enter the user's real name. Enter a password for the user. Retype the password to guarantee its accuracy. Type the next available user ID number. The user's primary group ID number. Type the full path of the directory into which you want a user to be sent when they connect. Type a comma-separated list of drive letters

for which you want the user to have access (for example, a,b,c). When no list is specified, the user can access all drives. **connection:** The path between two hosts on the network. When two network hosts are connected, they can exchange information.

logical drive: A drive letter that represents a specified directory. This drive letter identifies a directory structure under the specified directory, not a physical drive on your PC.

login directory: The first directory that another computer connects to with a file transfer protocol application.

password file: A password file limits a users access to an application that uses the file. The file contains the login information for a user, including an encrypted form of a user's password. The application that inserts an entry in the password file creates the encrypted form of the password.

For FTP Server, the password file supports entries that limit directory access and that identify a login directory.

Entries in the password file have the form:

username:encrypted password:userID_number:groupID_number:real name: login drive;\:

accessible drive, accessible drive

The following example shows a password file entry for Chris Smith. Drive D identifies Chris' login directory; drives D and I specify the directories that Chris can access.

chris:h8HD/.7:2002:16:Chris Smith:D;\: D,I

remote host: Another computer on the network. Your computer is considered the local host.

session: The interactions between your PC and a remote host during a connection. The application configuration settings are a part of the session.
session definition: The configuration option settings for a particular session or remote host connection.

Note: The set of session parameters you can specify differs with each application. For example, for Server Control, a session definition includes the names of the servers to start. For the FTP client, a session definition specifies the remote host to connect to.

account name: The name or word that identifes who is billed for this session on a computer system.

case sensitivity: The ability of a program to evalutate the difference between the capitalized and non-capitalized versions of a character. Case sensitive programs treat for example, *cat* and *Cat*, as distinct items.

It matters how you enter file and variable names on a case sensitive operating system (such as the UNIX operating system). If you want to view a file named *Cat*, and you enter the characters *cat*, the system displays the file named *cat* if one exists, or gives you an error message. It does not display a file named *Cat*. Case sensitivity also effects the way that files are listed when sorted in alphabetical order.

filename conventions: A TCP/IP network usually contains computers that run different operating systems. Each operating system has different conventions for naming files. For example, both the number and kinds of characters that can be used in a name are often subject to limits.

When you use some TCP/IP supported services such as telnet and ftp, use the filenaming conventions in effect on the host system to work with files that are on the host.

hostname: The name of a networked computer.

The hostname is one form of the computers TCP/IP network address; the other is its complete numeric network address. You can access a computer by its hostname or its numeric network address.

toolbar: A group of buttons that appears below the menu bar. These buttons let you gain access quickly to the application's features.

IP address: A number (in the form *n.n.n.n* where each *n* is a value in the range 0 to 255) that uniquely identifies a networked computer that uses the TCP/IP communication protocol. (The Internet Protocol is defined in RFC 791.)

MIB-II: The Management Information Base (MIB) database used by an SNMP MIB agent to store information about the network operations of your PC. MIB-II (or MIB version 2) is the second version of the Internet-standard MIB. RFC 1213 defines the format of MIB-II.

packet: A single network message with its associated header, addressing information, data, and optional trailer. Also known as a "frame" or "datagram".

password: A word or string of characters that you supply in order to login to another system on a network. Systems that accept the username "anonymous" often require you to provide your e-mail address as the password.

permissions: On UNIX systems, settings that control who has access to a file and what rights (read, write, or execute) are given. NFS uses UNIX-style permissions to control access to network files. **protocol window**: Some OnNet applications support a window dedicated to displaying the interactions between your PC and the

remote host (the protocol). You can display the window usually from a View, Settings, or Options menu.

remote host: A networked computer that makes a service available to other computers on the network. Typical host services include

transferring files, printing files, and managing logins from remote users. **SNMP community:** A relationship between an SNMP agent and one or more SNMP management stations.

SNMP community name: A unique name shared by the members of an SNMP community.

SNMP message: A packet of data, consisting of an SNMP community name and SNMP commands and operands.

status bar: A message area, typically at the bottom of the application

window, that provides information about the component that is currently selected, or the state of the application.

session: A session comprises the interactions between your PC and a remote host beginning with the initial connection and ending when you or the host explicitly disconnect.

Some OnNet applications allow you to configure sessions, that is, automatically send parameters such as your username and password to the remote host..

session definition: The configuration settings for a particular session or host connection. A session definition might include such settings as the hostname of a computer on the network and your login name for that computer, as well as other values that you specify. The set of session parameters you can specify differs with each program.
TCP (Transmission Control Protocol): A Transport layer, connection-oriented, end-to-end protocol that provides reliable, sequenced, and nonduplicated delivery of bytes to a remote or a local user. TCP provides reliable byte stream communication between pairs of processes in hosts attached to interconnected networks.
time out: A period of time when a connection between a PC and a host computer is allowed to be idle or unused, or when a PC can attempt to make a connection to a networked host..

When the time period elapses, the host closes the idle connection, or the PC reports that it failed to connect to a host.

UDP (User Datagram Protocol): A Transport layer, connection-less mode protocol providing a (potentially unreliable, unsequenced, and/or duplicated) datagram communication for delivery of packets to a remote or a local user. UDP provides a procedure for a process to send messages to other processes with a minimum of protocol mechanism.
 username: A name required for login to a remote system.
 wildcard: A character such as * or ? that represents one or more characters in a filename. In a network, each operating system supports its own wildcard characters and syntax. When you use wildcards on a remote host, follow the conventions that apply to that host.

Displays or hides additional elements of this dialog box. Returns to the previous dialog box. Displays the Open dialog box so that you can search for a specific file. Cancels your selection(s) and close the dialog box without taking any action. Closes the dialog box. Exits the application. Displays Help about the contents of this dialog box. Does not proceed as indicated. Proceeds to the next dialog box. Confirms your selection(s) and close the dialog box. Opens the Options dialog box. Enter a word or string of characters to log in to another system, workgroup, or domain on a network. Protects the contents of the file from modification. Starts the operation.

Stops the operation. Starts or stops the operation. Enter the hostname or IP address of the remote host that you are trying to reach. Enter the name that you use to log in to a computer on a network. Proceeds as indicated. Proceeds as indicated and avoids further prompts for confirmation. Click this to set up options,

Saves all the changes you have made without closing the dialog box. Context-sensitive help for this item is not yet implemented. Help for this dialog box is not yet implemented.

Technical assistance

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

 Telephone
 (800) 382-4387

 (508) 685-3600
 support@ftp.com

 Fax:
 (508) 794-4484

or

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

Тір

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)