WS_FTP Professional

User's Guide

Document Version 1.0

Ipswitch, Inc.

Ipswitch, Inc.
81 Hartwell Ave., Lexington, MA 02173

Contents

Chapter 1: Introduction

When you are working with large files or collections of files, you may want to copy files from one computer to another rather than sending them via e–mail. In addition, you may want to access a collection of files stored on another computer system. WS_FTP Professional lets you connect to another system (also called a remote system) from your local PC and transfer files between the two systems. This chapter introduces WS_FTP Professional and describes its features.

Refer also to the WS_FTP Professional online help for information about the application and specific features.

What is WS_FTP Professional?

WS_FTP Professional is a Windows–based application for transferring files between your PC (the local system) and a remote system. With WS_FTP Pro's easy–to–use interface, you can "upload" files (meaning copy files from your PC to another system) or "download" files (copy files from another system to your PC).

Local System dirs and files

Remote System dirs and files
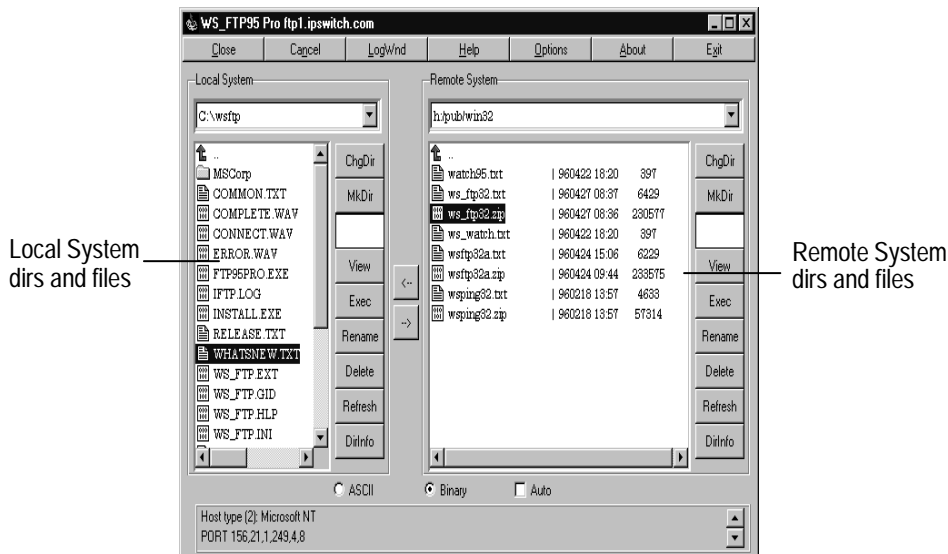
Note:

In networking terms, your PC is known as the "local system." A "remote system" is any other computer that you connect to via a modem and telephone lines or a local–area network.

When you have connected from your PC to a remote system, the WS_FTP Pro window displays the directories and files for your PC in the Local System list box (on the left) and the directories and files for the remote system in the Remote System list box (on the right). With both filesystems displayed, you can easily locate files on one system and copy them to a directory on the other system.

Using the buttons on the WS_FTP Pro window, you can connect to a remote system, browse directories and files, and transfer directories and files.

WS_FTP Pro Configurations

WS_FTP Pro is an FTP client application that complies with the Windows sockets (Winsock) standard. WS_FTP Pro can connect to any system that has a valid Internet address and contains an FTP server program, allowing you to transfer files between a wide variety of systems, including Windows, OS\2, and UNIX systems.

WS_FTP Pro is available in the following configurations:

- 32–bit, 2 window version for Windows 95 and NT only

- 32–bit, 4 window version for Win32s, Windows 95 and NT

- 16–bit, 4 window version for Windows 3.x

The 2–window version, shown on the previous page, uses icons to identify directories and files and provides drag–and–drop file transfer and move capabilities.

The 4–window versions show directories in a directories list box and files in a files list box, as shown below. These versions do not use icons and do not provide drag–and–drop capabilities.

Local system directories

Local system files

Remote system directories

Remote system files
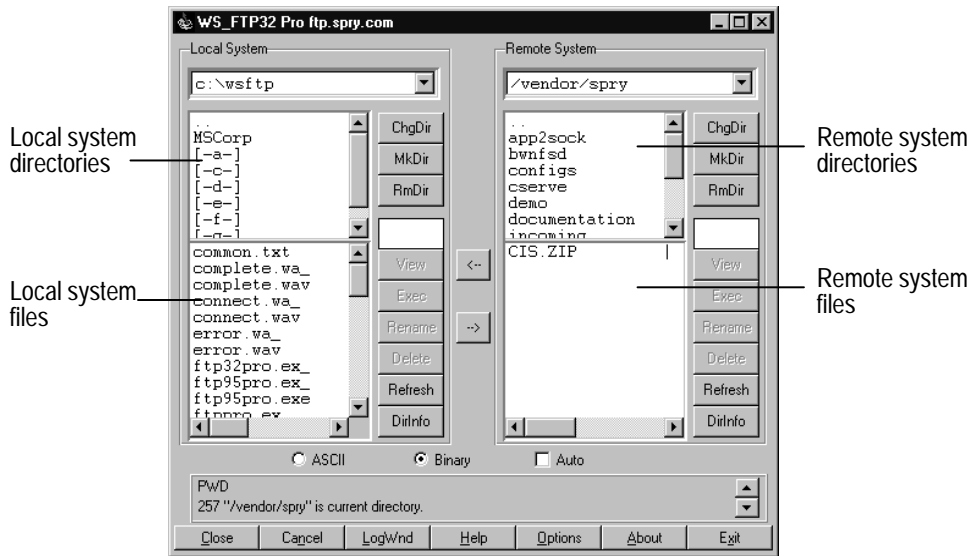
WS_FTP Pro Features

You can use WS_FTP Pro to:

- Create a connection between a local system and a remote host system

- Display and browse directories and files on both the local and remote systems

- Transfer one or more files between the local and remote systems (in either direction) using Window's point–and–click capabilities

- Create and retain session profiles to automate the logon and connection to frequently used remote systems

- Access the vast store of information on **anonymous FTP** sites (see the following section "File Transfer Concepts" for more information)

In addition to the above features, WS_FTP Pro also includes the following options:

- Resume interrupted transfers

  If a file transfer is interrupted by a lost connection, WS_FTP asks if you want to continue the transfer when you re–connect to the remote host.

- Drag–and–drop file transfer between a remote and local system.

- Drag–and–drop file transfer from Window's File Manager or Windows 95 Explorer to the local or remote system.

- Multiple file transfer using WS_FTP Pro commands from a DOS prompt.

- Preserve file date/time on transfer (Windows 95 and NT)

- Prevent overwrite of newer files (Windows 95 and NT)

- Bonus Pack includes Network tools — Ping, Trace, Finger, Whois, and Lookup

---

File Transfer Concepts

If transferring files using FTP is new to you, some basic concepts will help you get started.

The File Transfer Protocol (FTP)

The File Transfer Protocol (FTP) provides the ability to transfer files between computers by defining how the local system communicates with the remote system. FTP is a client/server based protocol, whereby a client program on one system (the local system) sends requests to a server program on another system (the remote system) and receives replies from the server.

WS_FTP Pro is a client program that can communicate with any FTP server program.

FTP servers are used by many companies, universities, and other organizations to provide access to a collection of files.

To create an FTP connection with a remote system, you need to log on to the system using a userid and password. This requires that you either have an account on the remote system or can access the system through an anonymous FTP guest account.

Anonymous FTP

Anonymous FTP lets you connect to a remote host and download files without requiring you to have an account on the host. An anonymous FTP site lets you log on using "anonymous" as the userid and your e–mail address as the password. Normally, when you log on "anonymously," you are placed in a public directory on the remote system (usually the `/pub` or `/apps` directory) that contains information and software that can be "downloaded," meaning transferred to your local system. Access to other directories on the system is usually restricted.

Through anonymous FTP you can access a vast library of software and information. Many companies maintain an "FTP site" where you can download evaluation versions of software and obtain product information.

WS_FTP Pro provides a number of predefined profiles that let you quickly access popular anonymous FTP sites. For example, you can select "Games" from the Profile Name drop–down list in the Session Profile dialog box to access an FTP site that contains free distributions of various computer games.

Note:
When you log on to an anonymous FTP site, look for a file called *readme*, *readme.txt*, *index*, or *00index*. Many sites use this file to provide a description of the information available on the site and other information such as restricted hours for using the site.

For more information on **FTP** (File Transfer Protocol) and FTP sites, refer to the network newsgroups or one of the recent books on the Internet.

Read Me First Information

Please refer to the release notes included with this product for information regarding any enhancements or changes made to the software since this manual was printed.

Please Send Us Your Feedback

We welcome your feedback on this product. Please send the results of your evaluation and your comments and suggestions to the following e–mail address: *feedback@ipswitch.com*

System Requirements

WS_FTP Pro requires the following system resources:

- An Intel 386, 486, or Pentium processor; a PowerPC processor; or a Digital Alpha processor

- Windows 95, Windows NT, Windows 3.1, Windows 3.11, or Windows for Workgroups 3.11 operating system

- A TCP/IP protocol stack. Supported stacks include those from Microsoft (Windows 95 and NT) and Ipswitch (Windows 95 and Windows 3.x).

Installation

1. Install a Windows TCP/IP stack on your system. Microsoft provides a TCP/IP stack with Windows 95 and Windows NT. Ipswitch also offers Acadia/VxD and CyberSuite that run on Windows 95 and Windows 3.x.

2. Insert the WS_FTP Pro disk into a floppy disk drive.

3. Do one of the following:

    –   For Windows 95, click the **Start** button, select **Run**, and then enter the diskette path followed by *install.exe*. For example:

        ```
        a:install.exe
        ```

    –   For Windows NT and Windows 3.x, select **Run** from the File menu, and then enter the diskette path followed by *install.exe*. For example:

        ```
        a:install.exe
        ```

4. Follow the on–screen instructions to install WS_FTP Pro.

    a. The installation program asks where you want to install WS_FTP Pro. Enter a directory in which to install the WS_FTP Pro executables, release notes, and help file.

    b. The installation program asks you for the preferred local directory for file transfers. Enter the name of a directory that you want to be the default when transferring files to the local system. You can override the default at any time by selecting another directory on the local system.

    c. The installation asks you to select the appropriate version of WS_FTP for your system. The recommended version for your system is preselected.

    d. The installation program asks you to select which Bonus Pack tools you want to install. The recommended versions for your system are preselected.

    e. The installation asks you to enter a name for the Windows program group that it will create. The default name is WS_FTP Pro.

    When you have completed the on–screen instructions, the installation program installs the files and creates a shortcut for WS_FTP Pro in Windows 95 systems or a program group in Windows 3.x and Windows NT systems.

Files Installed

The WS_FTP Pro installation places the following files on your system:

ftppro.exe	Executable program for WS_FTP Pro — 16–bit, 4–window version for Windows 3.x.
ftp32pro.exe	Executable program for WS_FTP Pro — 32–bit, 4–window version for Win32s, Windows 95, NT.
ftp95pro.exe	The WS_FTP Pro executable program — 32–bit, 2–window version for Windows 95 or NT only.
whatsnew.txt	Release notes for this version of WS_FTP Pro.
iping32.exe, iping.exe	The 32 –bit and 16–bit executable files for the Ping tool.
ifingr32.exe, ifinger.exe	The 32 –bit and 16–bit executable files for the Finger tool.
iwhois32.exe, iwhois.exe	The 32 –bit and 16–bit executable files for the Whois tool.
itrace32.exe, itrace.exe	The 32 –bit and 16–bit executable files for the Traceroute tool.
ilook32.exe, ilookup.exe	The 32 –bit and 16–bit executable files for the NSLookup tool.
complete.wav	The sound file that indicates a file transfer has completed.
connect.wav	Sound file that indicates that your local system has successfully connected to a remote system.
error.wav	Sound file that indicates an error has occurred on connection or file transfer.

Note:

To replace any of the sound files with your own sound file, copy the new file to the existing *.wav* filename. For example, to use a different sound file for *connect.wav*, copy the new file to *connect.wav*.

Chapter 2: Using WS_FTP

This chapter describes how you can use WS_FTP to process a typical FTP file transfer. A typical file transfer includes the following steps:

1. Connect to a remote system using a session profile.

2. Locate directories and files on the local and remote systems and perform any directory and file operations.

3. Transfer files from one system to another.

4. Disconnect from the remote system.

Starting and Configuring WS_FTP

This section describes how to start WS_FTP and how to create an FTP connection to a remote system.

Starting WS_FTP

To start WS_FTP:

- In Windows 95, click the **Start** button and select **Programs–>WS_FTP Pro–>WS_FTP Pro** (or **WS_FTP95** or **WS_FTP32**, depending on which version you installed).

- In Windows 3.x and NT, open the **WS_FTP Pro** folder and double–click the **WS_FTP Pro** icon (or the **WS_FTP95** or **WS_FTP32** icon, depending on which version you installed).

The WS_FTP main window and Session Profile dialog box (shown below) appear.

```
 Session Profile                                    ☒
  Profile Name: Product Info              ▼      ┌──────────┐
                                                 │    Ok    │
  ┌─────────┐ ┌─────────┐ ┌─────────┐            └──────────┘
  │ Delete  │ │  Save   │ │  New    │            ┌──────────┐
  └─────────┘ └─────────┘ └─────────┘            │  Cancel  │
   Host Name: super.ipswitch.com                 └──────────┘
                                                 ┌──────────┐
   Host Type: Automatic detect          ▼        │ Advanced.│
                                                 └──────────┘
     User ID: fred          ☐ Anonymous Login    ┌──────────┐
    Password: ********       ☐ Save Password      │   Help   │
     Account:               ☒ Auto Save Config    └──────────┘
  ┌ Initial Directories ─────────────────────┐
   Remote Host: c:\guest
      Local PC: c:\mktg\docs
  └──────────────────────────────────────────┘
     Comment:
```
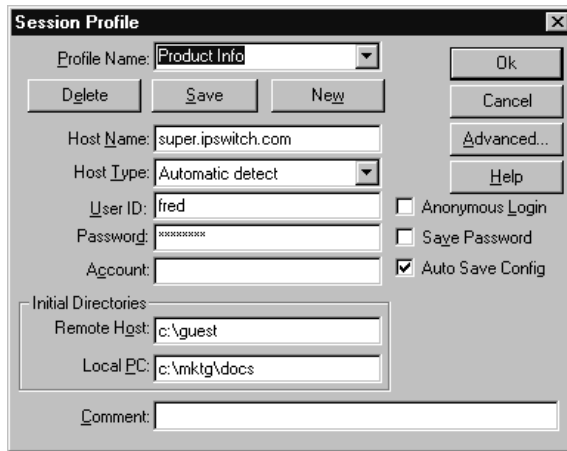
Session Profile

To create an FTP connection to a remote system, you either enter the information to create a session profile or invoke an existing session profile. The session profile tells WS_FTP Pro the name of the remote system, its platform or host type, and the login account information — User ID and password.

Creating a New Session Profile

You can create a new session profile to log on to a remote system as follows:

1. Click the **New** button to clear the entry fields in the dialog box.

2. In the Profile Name text box, enter a name to identify the FTP session you are creating.

    This can be any name you want to use to identify the session.

3. In the Host Name text box, enter the name of the remote host to which you want to connect.

    This must be either a fully qualified Internet host name or an IP address.

4. Click on the Host Type drop–down listbox and select a host type for the remote host.

   If you know the host type, select it from the listbox. If you don't know, select "auto detect" from the listbox. Auto detect will work for most host systems.

   Note:

   When you connect to a remote host, if you cannot read the directory and file lists for the host (or nothing is displayed), check the log messages to determine the actual host type and then select it from the list box.

   ---

5. In the User–ID text box, enter your userid for your account on the remote system.

   To log on to an anonymous FTP site, you can select the **Anonymous Login** option to automatically enter "anonymous" as the User ID. See the section "Anonymous FTP" in this chapter for more information.

6. In the Password text box, enter the password for your account on the remote system.

   If this is an anonymous login, you should enter your full electronic mail address. It is recommended that you place a minus (–) sign in front of your e–mail address for anonymous logons.

   If you select the Anonymous Login option, and you entered your e–mail address in the Program Options, your e–mail address will be entered as the password.

7. Optionally, in the Account text box, enter information that may be required by your account on the remote system.

   If the remote system requires specific account information, such as on IBM VM systems, you can enter the information in the Account text box.

For example, an account is used on VM/CMS hosts for the initial password to the user's default directory. When you change directory (ChgDir) on a VM/CMS host you are prompted each time for the password to connect to that directory.

8. Optionally, in the Initial Directories text boxes, specify the directory you want to display when the FTP session starts. In the Remote Host text box, specify a directory on the remote system. In the Local PC text box, specify a directory on the local system.

9. Optionally, select the **Save Password** option to save your password with the session profile. If you do not enter a password, WS_FTP will prompt you for one when it connects to the remote system.

Note:
Use this option only if you are the sole user of your computer and no one else has access to your Windows directory. The password is stored in the *ws_ftp.ini* file and although it is encrypted, the source to this algorithm has been published.

Note:
To save a Session Profile, either click the **Save** button or make sure the **Auto Save Config** option is selected. When this option is selected, a configuration is automatically saved when you click **OK**. There is no imposed limit on the number of configurations that you can have.

---

10. Click **OK** to connect to the remote system.

When you have successfully connected to the remote host, the message window at the bottom of the WS_FTP window displays messages similar to the following:

```
150 Opening ASCII mode data connection for dir
Received 2046 bytes in 1.0 secs.
226 Transfer complete.
```

WS_FTP then displays the directories and files for the remote system. See the section "The WS_FTP Window" in this chapter for more information.

Saving and Deleting Session Profiles

The **Save** and **Delete** buttons are provided to help you manage the session profiles. Use the **Delete** button to remove unwanted entries. Use the **Save** button to save an entry without trying to actually connect to the host. The **Cancel** button exits the dialog box without saving any changes to the current configuration.

Using an Existing Session Profile

WS_FTP lets you save the information in a session profile and give it a profile name. The next time you want to connect to the same system, you can click on the Profile Name list box (at the top of the Session Profile dialog) and select the profile name.

You can select from a number of preconfigured session profiles for some of the popular FTP sites. Click on the Profile Name list box to show the choices.
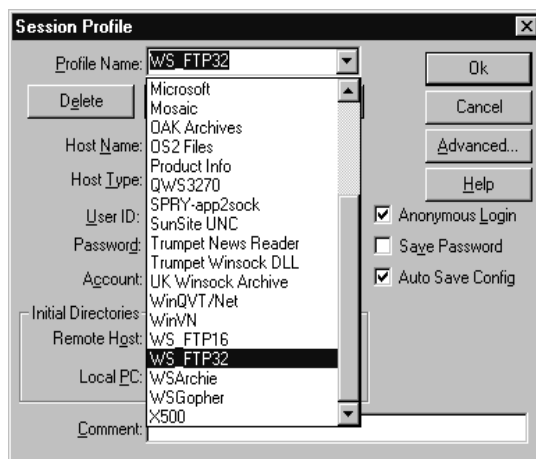

Advanced Capabilities for Session Profile

If you need to further specify how the FTP session operates, you can use the advanced session profile capabilities. For example, if your network uses a **firewall** for security, you need to specify information about the firewall to enable FTP access. See Chapter 4, "Customizing WS_FTP," for more information.

The WS_FTP Window

If you have successfully connected to the remote host, the WS_FTP
Window displays two lists of directories and files in the WS_FTP
main window, shown below.
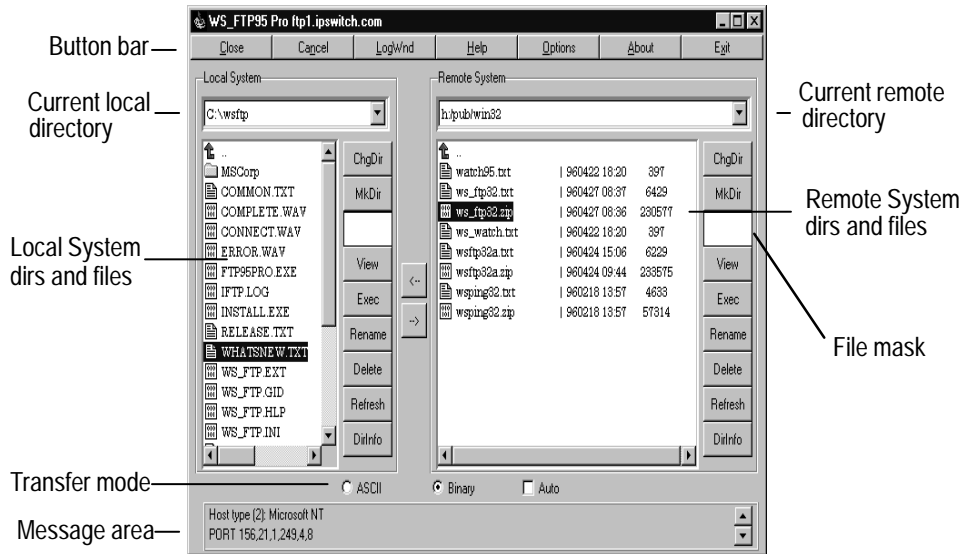
The column on the right, labeled Remote System, lists the directories
and files on the remote system to which you have just connected. The
column on the left, labelled Local System, lists the directories and
files on the local system.

The current directory is shown at the top of each column. The listbox
below the current directory shows all directories and files within the
current directory. Directories are listed first (identified by a folder
icon). Files are identified by one of several file type icons. Below the
directories and files, any disk drives that you can access are listed.
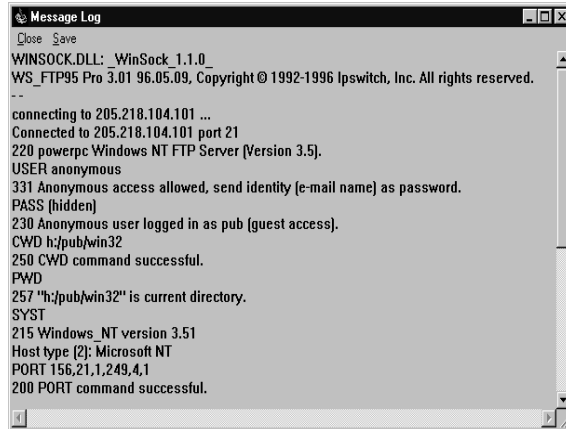
The buttons to the right of each column provide file and directory
operations for that column.

A message area at the bottom of the main window displays all
messages generated by the FTP session. You can view these messages
to confirm whether a command executed successfully and to
determine the cause of a failure or a disconnect. To view the
messages in a log window, click the **LogWnd** button.

Working with Directories and Files

After connecting to a remote host, you can use the directory and file commands to browse file systems on both the local and remote systems.

Just to the right of the each list box is a column of buttons that represents the commands you can use to perform directory and file operations. See the WS_FTP window in the previous section.

You can also access these commands from the pop–up menu that appears when you click the right mouse button in the list box that contains directories and files.
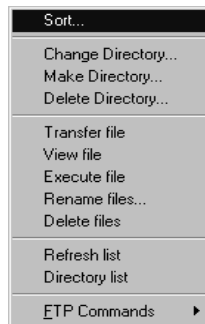
Changing Disk Drives

The current directory shown at the top of the local and remote systems' list boxes also indicates the disk drive on which the directory is located. To change the disk drive setting:

• Scroll down the listbox and double–click on the appropriate drive listing. On the Windows 95 version, disk drives are indicated by a drive letter (for example, a:, c:, d:) and a disk icon. The default color is blue.
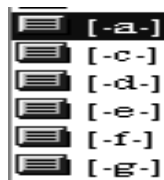
Alternatively,

- With nothing selected in the listbox, click the **ChgDir** button. you are prompted for a directory to change to.
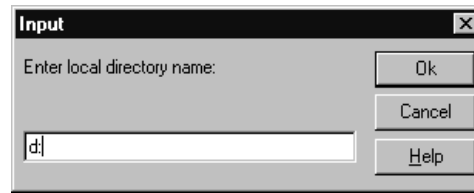
Enter the drive letter followed by a semicolon (for example, d:), and then click **OK**. Do not enter a trailing slash (\).

Directory Functions

In both the local or remote systems' list boxes, you can use the directory commands to locate files and directories, set the directories you want to use for file transfer, and perform other directory operations.

To change directories:

- Scroll down the listbox and double–click the directory you want to display. On the Windows 95 version, directories are indicated by a folder icon. The default color is yellow.
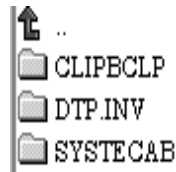
Alternatively,

- Click the **ChgDir** button. If a name is selected in the directory list box, the system will change directories to that name. If no name is selected, you are prompted for a directory to change to. Not all systems have the concept of directories, so your remote system may not accept this command.

You can also click on the Up (green arrow) button, located at the top of the listbox, to move up one directory in the directory hierarchy.

To create a directory:

Click the **MkDir** button. You are prompted for a directory name and must supply a name that is valid for the current system.

Input	✕
Enter new local directory name:	Ok
	Cancel
games	Help
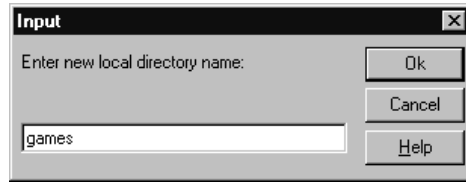
Not all systems allow you to make and delete directories remotely.

To remove a directory:

Click the **RmDir** button. You are prompted for a directory name. Not all systems allow you to make and delete directories remotely.

To refresh the directory display:

Click the **Refresh** button. After performing directory or file operations outside of WS_FTP, you can refresh the directory and file listbox to display any recent changes to the current directory.

To display directory and file information:

Click the **DirInfo** button. The Windows Notepad appears and lists the directories and files in the current directory. The size, creation date and time, and protections for directories and files are also provided.

```
Dir6012.tmp - Notepad                                    _ □ ✕
File  Edit  Search  Help
-r-xr-xr-x   1 owner    group        397 Apr 22 18:20 watch95.txt
-r-xr-xr-x   1 owner    group       6429 Apr 27  8:37 ws_ftp32.txt
-r-xr-xr-x   1 owner    group     230577 Apr 27  8:36 ws_ftp32.zip
-r-xr-xr-x   1 owner    group        397 Apr 22 18:20 ws_watch.txt
-r-xr-xr-x   1 owner    group       6229 Apr 24 15:06 wsftp32a.txt
-r-xr-xr-x   1 owner    group     233575 Apr 24  9:44 wsftp32a.zip
-r-xr-xr-x   1 owner    group       4633 Feb 18 13:57 wsping32.txt
-r-xr-xr-x   1 owner    group      57314 Feb 18 13:57 wsping32.zip
```

You can save or print the directory listing.

You can specify a different editor (Notepad is the default) by using the **Text Viewer** option in Program Options. See Chapter 4, "Customizing WS_FTP."

Sorting Directories and Files

You can sort the directories and files in either the local or remote system's list box by using the Sort options available from the pop–up menu. To access the Sort options:

1. Click the right mouse button in either list box. The pop–up menu appears.

2. Select **Sort** from the pop–up menu. The Sort dialog box appears.

```
Local Sort Options                    [X]

  C  No Sort              [    OK    ]
  (•) Sort on Name
  C  Sort on Extension
  C  Sort on Date
  C  Sort on Size

  [ ] Reverse Order
```

3. Select the Sort options you want to use and click **OK**.

Displaying Directories and Files

If a directory contains a large number of directories and files, you can limit the directories and files displayed in either the local or remote system's listbox by using the **File Mask** filter, which is located below the **MkDir** button on the WS_FTP Pro window. There are two **File Mask** filters, one for the local system and one for the remote system.

In the **File Mask** text box enter a filter that is valid for the system that you are on, and then press Return.

```
*.txt
```

For example, to display only files with the extension *.txt*, enter **.txt* as the File Mask and press Return. The listbox is refreshed to display only the files with the extension *.txt*.

If you are connected to a UNIX host, you can use "–al" in the remote side to view hidden (.) files. Or, you can use "–altr" in the remote side to receive file names in date sequence (in the 4 window versions of WS_FTP Pro only). You can use any argument string that is valid on the remote system at the end of an "ls" command in a command line FTP client.

File Functions

In both the local and remote systems' list boxes, you can use the file commands to view a file's contents, open (execute) a file in its associated application, rename, and delete files.

To view text files (ASCII format):

Select the file and click the **View** button. The file is opened in the viewer you have defined in the **Text Viewer** option in the Program options. The default text viewer is the Windows Notepad.

If you select the **View** button for the remote system listbox, the file is downloaded to the Windows temporary directory (defined with the DOS TMP environment variable). If it is a large file, it may take some time for the file to transfer from the remote system. Do not try to view a binary file.

To open (execute) a file in its associated application:

Select the file and then click the **Exec** button. WS_FTP executes the file according to its file extension. You can associate any file extensions with an application (executable program) in the Associations options. For example, you can specify that any files with the extension *.pdf* will be opened by the Adobe™ Acrobat™ Reader. See Chapter 4, "Customizing WS_FTP," for more information.

If you select the **Exec** button for the remote system list box, the file is downloaded to the Windows temporary directory (defined with the DOS TMP environment variable). If an association does not exist, you can provide that association at execution time. This association is saved in the *win.ini* file in the Extensions section and will also be valid for the File Manager. Files are automatically downloaded in binary mode.

To edit a file on a remote system:

If you associate a file extension with an editor program (see the Associations options), you can open a remote file and edit it, provided you have write permission to the remote file and directory. Select the file, then click the right mouse button and select **Edit** from the popup menu. Do not try to edit a binary file.

To rename one or more files:

Select one or more files, and then click the **Rename** button. You are prompted for the new name.

Enter the new name for the item and click **OK**. If you selected multiple files, you are prompted to rename the next file.

Not all systems allow you to rename files and directories remotely. You may be able to move a file from one directory to another directory by specifying a full or relative path (and the filename).

You can also use the **Rename on transfer** option to copy a file from one system to a new name on the other system. See "Transferring Files" in this chapter for more information.

To move one or more files to a new directory:

You can move files from one directory to another directory on the same system.

Select one or more files, then click the right mouse button and select **Move** from the popup menu. You are prompted for the directory to which you want to move the files. Enter the directory path and click **OK**. The selected files are moved to the new location.

To change the mode (or permissions) for a file:

You can change modes for a UNIX file on a remote system, provided you have file access permission. Select the file, then click the right mouse button and select **ChgMod** from the popup menu. The Remote File Permissions dialog box appears.

Select any of the options and click **OK**.

To delete a file:

Select the file and then click the **Delete** button. You are prompted for confirmation.
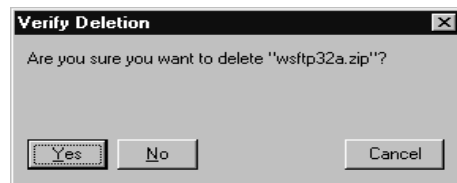
Click **Yes** to delete the item or **No** to cancel. Not all systems allow you to delete files remotely.

Transferring Files

Before you transfer a file or files, you should display the files in the list box of the source system and you should display the directory to which you will transfer files on the destination system. See the previous section, "Working with Directories and Files," for information on using the directory and file functions to display the files.

Downloading Files

To transfer files from the remote system to the local system (referred to as a download):

1. Select one or more files on the remote system.

   To select a single file for transfer, click its file name to highlight it. To select multiple files for transfer, hold down the Ctrl key and click on each of the file names.

2. Select the file transfer type.

   Click on the check box next to a file transfer type, at the bottom of the Session Profile dialog box. This type determines how FTP will transfer the files. Use **ASCII** for plain text files. Use **Binary** for any images or executable files or if you are unsure of the file type. (Word processing documents, databases, spreadsheets, graphics files, and sound files should be transferred in binary mode.) Use **L8** for non–text transfers from or to a VMS system.
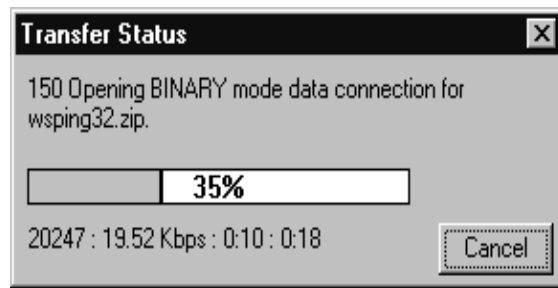
3. Transfer the files.

   To transfer the selected file(s) click on the **left arrow** button (located between the Local System and Remote System columns).

   WS_FTP transfers the files to the current directory on the local system. A dialog box appears and shows the transfer status.

```
┌─────────────────────────────────────────────┐
│ Transfer Status                          [X] │
├─────────────────────────────────────────────┤
│ 150 Opening BINARY mode data connection for  │
│ wsping32.zip.                                │
│       ┌───────────────────────────────┐      │
│       │            35%                 │      │
│       └───────────────────────────────┘      │
│ 20247 : 19.52 Kbps : 0:10 : 0:18   ┌────────┐│
│                                    │ Cancel ││
│                                    └────────┘│
└─────────────────────────────────────────────┘
```

You can click **Cancel** at any time to cancel the file transfer.

When the transfer is complete, the filenames of the transferred files appear in the local system's list box.

Uploading Files

To transfer files from the local system to a remote system (referred to as an upload):

1. Select one or more files on the local system.

    To select a single file for transfer, click its file name to highlight it. To select multiple files for transfer, hold down the Ctrl key and click on each of the file names.

2. Select the file transfer type.

    Click on the check box next to a file transfer type at the bottom of the Session Profile dialog box. This type determines how FTP will transfer the files. Use **ASCII** for text files. Use **Binary** for any images or executable files or if you are unsure of the file type. (Word processing documents, databases, spreadsheets, graphics files, and sound files should be transferred in binary mode.) Use **L8** for non–text transfers from or to a VMS system.

3. Click the **right arrow** button to transfer the files.

    WS_FTP transfers the files to the current directory on the remote system. A dialog box appears and shows the transfer status.
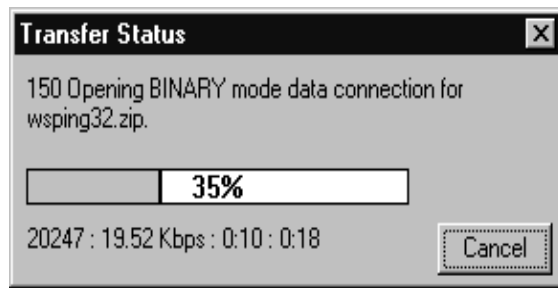
-->

Transfer Status

150 Opening BINARY mode data connection for wsping32.zip.

35%

20247 : 19.52 Kbps : 0:10 : 0:18   Cancel

You can click **Cancel** at any time to cancel the file transfer.

When the transfer is complete, the file names of the transferred files appear in the remote system's list box.

Using Drag and Drop to Transfer Files

You can use the mouse button to drag and drop directories and files between the local and remote systems.

Note:

The drag–and–drop functionality is available only in the 2–window version of WS_FTP Pro.

Click and hold the mouse button on a directory or file icon, drag it to the local or remote listbox, and then release the mouse button. As you drag the directory or file, an FTP icon shows its current location on the WS_FTP window. The Transfer Status dialog box appears and shows the status of each file as it is transferred.

To transfer multiple directories or files, use the Ctrl and Shift keys to select them, press and hold the mouse button, move to the destination system's listbox, and then release the mouse button.

The drag–and–drop feature is enabled by default. You can disable this feature by toggling off the check box for the **Enable drag and drop between windows** option in the Pro Options.

**Resuming a File
Transfer After
Failure**

When a file transfer is interrupted while in progress because of a lost connection or because it was cancelled, WS_FTP can resume the transfer when you reconnect to the remote system. When you reconnect, WS_FTP asks if you want to resume the transfer; for example:
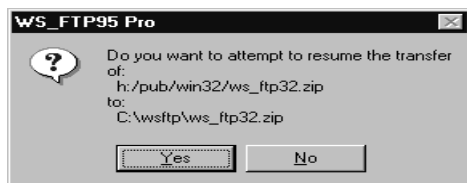
Click **Yes** to resume the transfer. The transfer will begin where it was interrupted. Click **No** to cancel the transfer.

Note:

If you choose not to resume the transfer, you will be left with a partial file (from the interrupted transfer) in the destination directory. You should delete this file.

The resume transfer feature is enabled by default. You can disable this feature by toggling off the check box for the **Enable auto reget of failed transfers** option in the Pro Options.
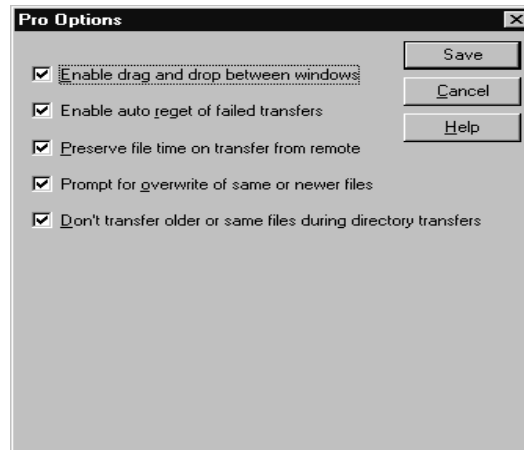

Note:

Not all FTP servers will allow the auto reget option, although most servers do.

File Transfer Options

The following options will affect how files are transferred between local and remote systems. To set these options, select the **Options** button from the button bar, and then select **Pro Options**.

Enable drag and drop between window

When enabled, you can transfer directories and files between systems by dragging them with the mouse from one listbox to the other.

Enable auto reget of failed transfers

When enabled, if a file transfer is interrupted while in progress because of lost connection or because it was cancelled, WS_FTP will ask if you want to resume the transfer when you reconnect to the remote system.

Preserve file time on transfer from remote

When enabled, and when you transfer a file from a remote system, the file will maintain its original creation date and time. If disabled, a transferred file is given the current date and time. (This does not work when transferring files to the remote system.) (This option is available on the 2–window version of WS_FTP Pro only).

Prompt for overwrite of same or newer files

When enabled, if you transfer a directory or file for which there is the same or a newer version (by date and time) in the destination directory, WS_FTP will ask if you want to overwrite the file. Note that this feature will not work with some FTP servers. (This option is available on the 2–window version of WS_FTP Pro only).

Don't transfer older or same files during directory transfers

When enabled, if you transfer a directory, WS_FTP transfers those files for which there are not the same or newer versions (by date and time) in the destination directory. (This option is available on the 2–window version of WS_FTP Pro only).

Disconnecting

To disconnect from an FTP site, click the **Close** button on the WS_FTP screen. The button toggles to **Connect** and WS_FTP is ready to begin another session. To exit WS_FTP, click the **Exit** button.

Chapter 3: Customizing WS_FTP

You can change the settings on a variety of WS_FTP options to customize its display, operation, and the manner in which files are transferred or executed.

Advanced Options for Session Profile

If you need to further specify how the FTP session operates, you can use the Advance Profile Parameters to customize the session profile. For example, if your network uses a **firewall** for security, you need to specify information about the firewall to enable FTP access.

In the Session Profile dialog box, click the **Advanced** button to access the Advanced Profile Parameters.

Each parameter is described below:

Connection Retry

If the initial connection fails, try to connect again after this number of seconds. The maximum number of retries is 40.

Network Timeout

The number of seconds before WS_FTP times out waiting for a host response to a command.

Note that the initial connection Timeout is determined by your WinSock DLL. Setting this value higher does not have any effect on the initial connection to the host. Setting to less than the amount of time that your WinSock DLL uses will cause the connection to time out in that amount of seconds. File transfers will not time out and must be canceled to end the transfer in the case of a lost connection.

Remote Port

The port number to connect to on the remote host. This is normally 21; however, it may be something different if you are going through a firewall.

Initialize Command

Enter any initialize commands that are needed by the remote system.

Local file mask

Enter a filter that is valid for the local system. For example, if you enter *.txt, only files with the .txt extension will be displayed in the local system listbox in the WS_FTP window. The filter entered here also appears in the File Mask filter for the local system.

Remote file mask

Enter a filter that is valid for the remote system. For example, if you enter *.txt, only files with the .txt extension will be displayed in the remote system listbox in the WS_FTP window. The filter entered here also appears in the File Mask filter for the remote system.

Passive Transfers

Forces "data" connections to be established by the client, rather than the server (which is the default).

Use Firewall

If you are behind a firewall host, select this option and enter the firewall information required by your firewall type. WS_FTP supports the following four types of firewall; choose the setup that meets your needs:

SITE hostname requires a firewall Host Name, User ID, and Password. User is logged on the firewall and the remote connection is established using the command: `SITE remote_host`

USER after logon requires a firewall Host Name, User ID, and Password. User is logged on the firewall and the remote connection is established using the command: `USER remote_userid@remote_host`

USER with no logon requires a firewall Host Name only; the User ID and Password are ignored. `USER remote_userid@remote_host` is sent to firewall.
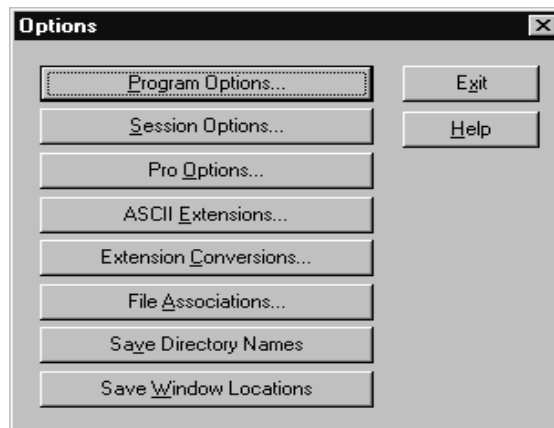
Proxy OPEN requires a firewall Host Name; the User ID and Password are ignored. `OPEN remote_host` is sent to firewall upon initial connection.

Save Password

Saves the firewall password to a file.

Program and Session Options

In the WS_FTP window, click the **Options** button. The Options dialog box appears.

The Options dialog contains the following components:

Program Options...

Displays a dialog box that lets you change the settings for the layout and operation of WS_FTP.

Session Options...

Displays a dialog box that lets you change the settings for the current session and session defaults.

Pro Options...

Displays a dialog box that lets you change the settings for features available only in WS_FTP Professional. See the "Transferring Files" section in Chapter 2 for more information.

ASCII Extensions...

Displays a dialog box that lets you change the extensions that are used for Auto Mode, which automatically detects whether a file should be transferred in binary or ASCII mode.

Extension conversions...

Displays a dialog box that lets you convert file extensions on transfer. For example, you can convert files with the *.htm* extension to *.html*.

File Associations...

Displays a dialog box that lets you change the settings that affect execution by the **Exec** button.

Save Dir Name

Saves the local and remote directory names in the current session profile.

Save Win Loc

Saves the current main window size and location.

Exit

Closes the Options dialog box.

Help

Displays help information for the Options dialog box.

The following sections describe each options dialog box.

Setting Program Options

The Program Options dialog box is used to change the default settings for the WS_FTP layout and operation.
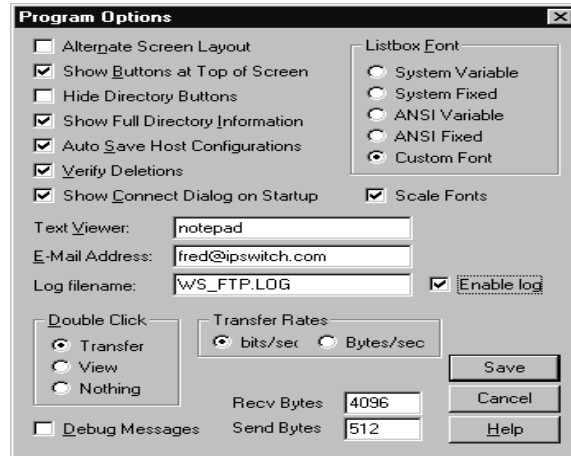
Each option is described below. For check box options, the description states what happens when the option is selected, or checked.

Alternate Screen Layout

Controls the main window display layout. The alternative layout splits the window horizontally, with the local directory and file list on top and the remote directory and file list on bottom.

Show Buttons at Top of Screen

Controls the placement of the buttons that are normally across the bottom of the window.

Hide Directory Buttons

Hides the column of buttons (ChgDir, MkDir, etc.) used for directory and file operations. (For 2–window version of WS_FTP Pro only)

Show Full Directory Information

Displays additional file information when possible. Not all host types are supported for this option. The client does not attempt to decipher or interpret this information.

Auto Save Host Configurations

WS_FTP will automatically save the Session Profile when you click on OK in the Session Profile dialog box. Though this option also appears in the Session Profile dialog box, its state is only saved in the Program Options dialog box.

Verify Deletions

WS_FTP will prompt you for confirmation when you delete files.

Show Connect Dialog on Startup

WS_FTP displays the connect dialog box when WS_FTP first starts.

Text Viewer

Identifies the program invoked by DirInfo and View buttons. The default value is Windows Notepad.

E–Mail Address

Used as the default password for anonymous logins, as required by most anonymous FTP sites. It is recommended that you place a minus sign (–) as the first character of your e–mail address to turn off descriptive messages on the remote host.

Log File Name

When the **Enable Log** option is enabled, WS_FTP Pro will write the information in the message log to this file. The log records all requests from WS_FTP Pro and all responses from the FTP server.

Enable Log

When enabled, WS_FTP Pro writes the message log to the file specified in the **Log File Name** option.

Listbox Font

The font used in the list boxes. *System Variable*, which is a variable font, is the default. *System Fixed* is a fixed font and will improve the alignment of columns in the boxes. *ANSI Variable* and *ANSI Fixed* are narrower than the System fonts.

Scale Font

This option reduces the size of fonts that are outside the list boxes, when you reduce the window size.

Double Click

Transfer means when you double–click on a filename, the file is transferred to the other system. *View* means when you double–click on a filename, the file is displayed using the text viewer. If the file is on a remote system, it will be transferred in ASCII mode to the Windows temporary directory and then displayed. *Nothing* means when you double–click on the filename, no action is taken.

Transfer Rate

Select to display the transfer rate shown in the Transfer Status dialog box in bits per second (*bits/sec*) or bytes per second (*Bytes/sec*).

Debug Messages

Enables extra debug messages in the message log window at the bottom of the main window and in the log file (if enabled)

Recv Size

Controls how many bytes are read from the network in each read (recv). This option can have a value from 80 to 4096, with best results from 4096. On slow connections try lower values and work your way up until you find the optimum rate.

Send Size

Controls how many bytes are written to the network in each send. This option can have a value from 80 to 4096, with the optimum dependent on your underlying TCP/IP stack. If you have a direct connection, 4096 is best. If you have a SLIP or PPP connection, you probably want to set it to the MTU size. On slow connections try lower values and work your way up until you find the optimum rate.

Setting Session Options

The Session Options dialog box is used to change the default settings for the current FTP session.
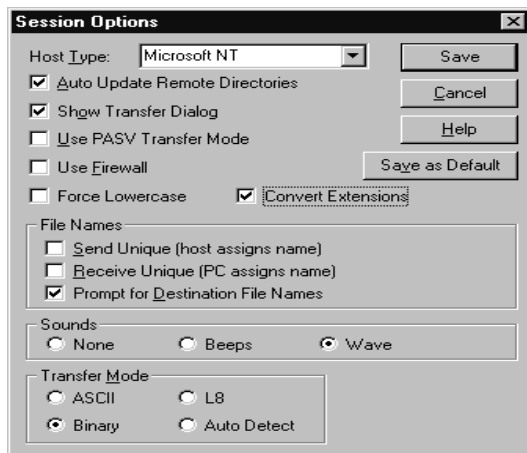
Each option is described below. For check box options, the description states what happens when the option is selected or checked.

Host Type

The host type of the remote system to which you will connect.

Auto Update Remote Directories

When this option is not checked, the remote directory list will not be refreshed after uploading a file, deleting a file or directory, or creating a directory. This can be accomplished manually by clicking on the remote side **Refresh** button when the option is turned off.

Show Transfer Dialog

When the option is checked, a Transfer Status dialog box will be displayed during file transfers. This dialog box displays the status of the transfer (shown as the percent done) and provides a **Cancel** button that lets you cancel the transfer at any time. Note that the percent done bar is only displayed if the file size is sent from the remote host on receives.

Use PASV Transfer Mode

PASV Mode forces "data" connections to be established by the client rather than the server (which is the default). PASV Mode may be required for users who are behind a router–based firewall.

Use Firewall

You can check this box and click the **Save As Default** button to set the **Use Firewall** option in the Advanced Session Profile Parameters to enabled and make it the default value.

Force Lower Case

When transferring files, forces WS_FTP Pro to send or receive the file with the file name in lower case letters.

Convert Extensions

Enables the automatic conversion of the file extensions set up in the Extension Conversions options.

Send Unique (host assigns name)

This option causes the transmitted file names to not conflict with existing files if the remote host supports the STOU FTP command. The new filename is determined by the remote host.

Receive Unique (PC assigns name)

This option causes the received file names to not conflict with existing files. The new filename is changed so that the sixth though eighth character of the filename will be a number from 000 to 999.

Prompt for Destination File Names

Enables local/remote filename prompting. For each file that is transferred, you will be shown the proposed destination file name and allowed to change it. You can enter a full pathname to a different directory if you want.

Sounds

Specifies sounds to use on connection, completion of file transfer, or on an error. *None* means no sound is played. *Beeps* means a "beep" sound occurs. *WAV* means the *connect.wav*, *complete.wav*, and *error.wav* files will be used to play sound.

Transfer Modes

ASCII (transfer mode) is used to transfer text files. The end–of–line character is different on different types of computers. This will insure that the end–of–line character is translated properly. If you know that the host that you are transferring to or from is the same as your local host, you can always use Binary mode and never use ASCII.

Binary (transfer mode) is used to transfer non–text files. Executable programs, word processing documents, spreadsheets, databases, graphics files, and sound files are some examples of files that must be transferred in Binary mode. If you know that the host that you are transferring to or from is the same as your local host, you can always use Binary mode and never use ASCII.

L8 (transfer mode) is used to transfer VMS non–text files.

Auto Detect (transfer mode) When this option is selected, WS_FTP transfers in binary mode unless it finds the file extension in the *WS_FTP.ext* file. In that case it transfers the file in ASCII mode. Note that extensions can be up to 10 characters long and can contain periods. These are not DOS extensions, but the ending characters of a filename. If you expect it to match on a period, you must specify a period. Some example extensions are: *.lst .txt .me readme* See the following section on "Setting Extensions" for information.

View links

Set to view links (for example, UNIX symbolic links) on the remote system *as directories* or *as files*. This option does not appear in the 2–window version of WS_FTP Pro because links are handled automatically.

Save As Default

Click this button to save the current settings as the default settings.

Setting Extensions

The Extensions dialog box is used to specify the transfer mode for different file extensions. When Auto Detect is selected for the transfer mode, WS_FTP will transfer all files in binary mode unless the extension is entered in this dialog box. The specified extensions will use the specified transfer mode.
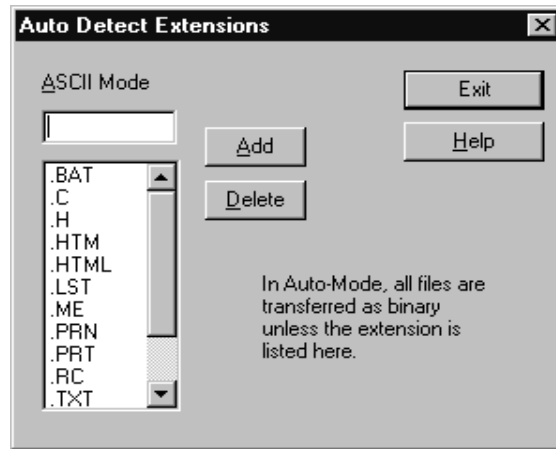
To add a file extension to the Auto Detect list:

1. In the **ASCII Mode** text box, enter a file extension in this field and click on Add to add it to the list of files. The extension can be up to 10 characters long and can contain periods.

2. Click the **Add** button.

    The extension appears in the listbox. The listbox lists all file extensions that WS_FTP Pro will transfer in ASCII mode.

    To delete a file extension from the listbox, select the extension and click the **Delete** button.

Click the **Exit** button to exit the dialog box. Click the **Help** button to display help for this dialog box.

**Setting Up Exten-
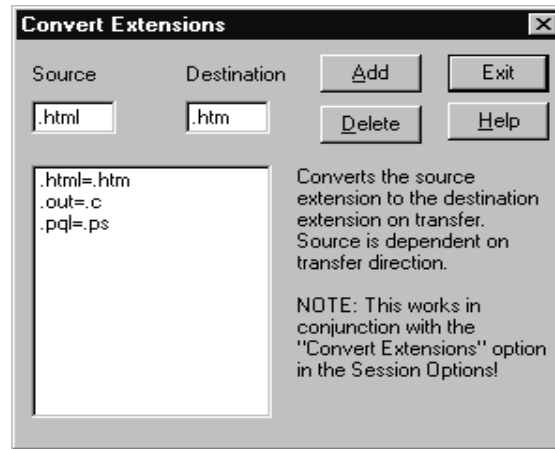sion Conversions**

The Extension Conversions dialog box is used to convert file extensions of transferred files to a new extension. For example, if the remote system uses *.html* for HTML files and your system uses *.htm*, you can specify that all files with the extension *.html* are converted to *.htm* on transfer.

To convert file extensions automatically, you need to enter the source and destination extensions in this dialog box and enable the **Convert Extensions** option in the Session Options.

Note:

The source and destination are dependent on the file transfer direction. For example, when transferring from the remote to the local system, the source will be on the remote system.

To add an extension conversion:

1. In the **Source** text box, enter the file extension of the source file.

2. In the **Destination** text box, enter the file extension to convert to (the destination file).

3. Click the **Add** button.

    The extension conversion appears in the listbox. The listbox shows all the defined extension conversions.

WS_FTP Pro will automatically convert these extensions on transfer when the **Convert Extensions** option in the Session Options is enabled.

To delete an extension conversion, select it in the listbox and click the **Delete** button.

Setting Associations

The Associations dialog box is used to associate files of a particular extension with an executable file. In this way, you can map file types to an application (executable file) that can run that type of file. When you choose the Exec button to execute a file on a remote system, the file is transferred in binary mode and executed by the File Manager. The Associations tell the File manager how to execute files of a particular extension.
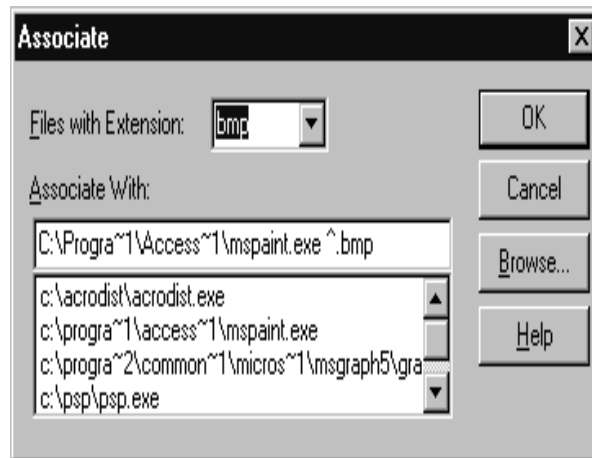
To set up an association:

1. In the **Files with Extension** text box, enter the file extension to be associated with the executable.

2. In the **Associate With** text box, enter the executable program to run when transferring files with the specified extension.

    You can use the **Browse** button to browse your directories and files to locate the executable program.

3. Click **OK**.

You can click the **Help** button to display help for this dialog box.

Chapter 4: Using WS_FTP from the Command Line

You can use WS_FTP Pro from the DOS command line. This chapter describes the command syntax, and arguments.

WS_FTP Command

The command for using WS_FTP Pro from the command line differs depending on which version you installed. The command for each version is shown below:

- **ftp95pro** — 32–bit, 2–window version for Windows 95 and NT

- **ftp32pro** — 32–bit, 4–window version for Win32s, Windows 95 and NT

- **ftppro** —16–bit, 4–window version for Windows 3.x

Syntax

Use the following syntax to transfer a file from the command line. Use the –m argument for transferring multiple files.

ftp95pro [args] *hostname*|local:/*pathname*/*filename* [*hostname* | local:/*pathname*/[*filename*]

The arguments you can use in [args] are described below.

To transfer a file from the remote system to the local system, use the following construction:

ftp95pro [args] *hostname*/*pathname*/*filename* [local:/*pathname*/[*filename*]

where you enter the *hostname* for the remote system, the directory *pathname* and *filename* on the remote system, and the directory *pathname* and *filename* on the local system. You can use any of the arguments defined below.

hostname is assumed to be the name of a profile. If it is not, then it is assumed to be the full domain name or the IP address of a remote host. If *hostname* is a remote host, the userid will be anonymous and the password will be the specified e–mail address.

To transfer a file from the local system to the remote system, use the following construction:

ftp95pro [args] local:/*pathname*/*filename*
[*hostname*/*pathname*/[*filename*]

where you enter the directory *pathname* and *filename* on the local system and the *hostname*, directory *pathname* and *filename* on the local system. You can use any of the arguments.

If this is not an anonymous FTP session and a password is required by the host and not specified in the profile, you will be prompted for the password (and account if applicable).

During transfer of files, a dialog box displays the transfer status. You can click the **Cancel** button to cancel the transfer. The partial file is not deleted automatically.

You can use the following construction to make WS_FTP prompt for the command line.

ws_ftp [args] –ask

Arguments

You can use the following arguments with the **ws_ftp** command. Note that the –i argument must precede the –p argument when both are used, and both of these arguments must precede any other arguments used.

–i *inifile*   Forces WS_FTP to use the *.ini* file, where *inifile* is the name of the *.ini* file. Use this option when you want to override the WS_FTP default operation, which first looks for a *.ini* file in the current directory, then in the directory where the executable file resides, and then in the Windows directory.

–p *profile*	Run the profile to connect to a remote system, where *profile* is the name of a session profile that specifies the remote system and logon information. The profile must be in the default *.ini* file or in a *.ini* file that you specify with the *–i* argument.
–u *userid*	Specifies the *userid* for your logon account on the remote system.
–w *password*	Specifies the *password* for your logon account on the remote system.
–c *account*	Specifies an account for those systems that require an account to log on or access partitions.
–ascii	Specifies the file transfer mode. Use this argument when transferring text files.
–binary	Specifies the file transfer mode. Use this argument when transferring non–text files, such as executable programs, word processing documents, spreadsheets, databases, graphics files and sound files.
–quiet	Overrides the normal behavior of displaying a message box if an error occurs. Useful for automated transfers when you do not want WS_FTP to prompt for user input when no one is there to press a key.

–s *hostname | local/pathname/filename*

        Specifies the directory path and name of the file to be transferred (source file).

–d *hostname | local/pathname/filename*

        Specifies the directory path and filename to which the source file is copied (destination file).

–m *filename_of_file_containing_args*

Transfers multiple files, where *file* is a file that contains the file transfer commands specified using the syntax shown above. Note that you do not enter the command itself (**ftp95pro**) in this file. For example, you can specify the command as:

ftp95pro –m transfer.m

where transfer.m contains the following lines:

```
ftp.wicket.com/etc/hosts local:/vmunix
ftp.wicket.com/etc/hosts local:/vmunix2
```

Invoking a URL with WS_FTP

You can start WS_FTP Pro and invoke an FTP URL (Uniform Resource Locator) to access an FTP site. For example, you can use the following construction:

ftp95pro [args] ftp://*hostname | profile/pathname*

where you enter the *hostname* of the remote system or a *profile*, and the *pathname* of the directory on the remote system where you want to start.

You can use the following constructions to download a file defined by a URL.

ftp95pro [args] ftp://*hostname | profile/pathname/filename* [local:*pathname*[/*filename*]

ftp95pro [args] file://*hostname | profile/pathname/filename* [local:*pathname*[/*filename*]

where you enter the *hostname* of the remote system or a *profile*, the directory *pathname* and *filename* on the remote system, and the directory *pathname* and *filename* on the local system.

Examples
The following examples show how you can use WS_FTP from the command line.

The following example invokes the Session Profile dialog box with the profile named *download.* You can use this command to create an icon that launches a profile.

ftp95pro –p download

The following example displays a dialog box that prompts for the command line.

ftp95pro –ask

The following commands download a URL file to a local file. Use the file or ftp parameters depending on the type of URL.

ftp95pro file://www.ipswitch.com/download/file.zip
        local:/download/file.zip

ftp95pro ftp://www.ipswitch.com/download/file.zip
        local:/download/file.zip

The following command uploads a file to a remote file.

ftp95pro local:/upload/file.zip
        ftp.ipswitch.com:/upload/file.zip

Chapter 5: Using Network Tools

WS_FTP includes a versatile set of tools that let you search for and display information about organizations, networks, computers, or people on a network.

- Finger — Use Finger to display information about users on a particular host.

- Whois — Use Whois to search an Internet database for information about users or organizations.

- IPing — Use IPing to verify connectivity to a particular system on your network.

- Lookup — Use Lookup to query Internet domain name servers for information about hosts and name servers.

- Traceroute — Use Traceroute to trace and view the route an IP packet follows to an Internet host.

The following sections describe each tool.

Finger

What is Finger?

Finger is a tool that identifies and displays information about all users on a network host. This information includes a display of current users (their userids and usernames) and related information, including the home directory, login time, idle times, office locations, and the last time the user received mail and read their mail.

A Finger request will also display any information that the user enters in the *.plan* or *.project* files in their home directory. These files are generally used by individuals to provide information about themselves and their work.

A Finger request connects to a Finger server running on the specified host. If the specified host does not have a Finger server, the Finger client will display the message: `Connection not made`

Using Finger

To start the Finger tool, do one of the following:

- From Windows 95, click **Start–>Programs–>WS_FTP Pro** (or **WS_FTP95** or **WSFTP32**, depending on which version you installed) and select **Finger**.

- From Windows 3.1, select the **Finger** icon from the WS_FTP Pro program group.

  The Finger window appears.

To show Finger information for a specific user on a host:

1. In the Finger String text box, enter a hostname and any part of the user's full name.

2. Click the **Finger** button.

   The Finger client contacts the host's Finger server. The following example shows the Finger window with the results of the query.
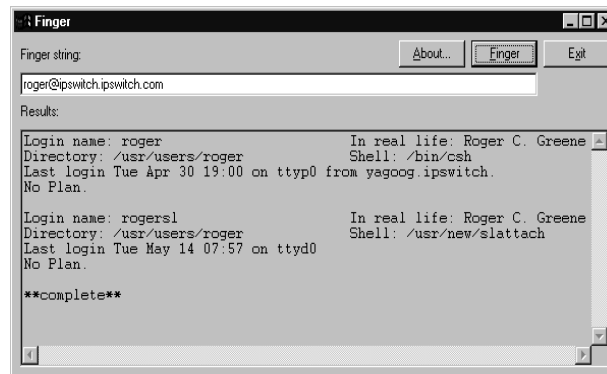
To show information for all users logged on to the host, enter the hostname, then click the **Finger** button.

Whois

What is Whois?

Whois is an Internet username directory service that, like Finger, provides information about users or hosts on a network. The Whois information includes the user's full name, mailing address, telephone number, and network mailbox for all users and organizations who are registered with the Internet Network Information Center (InterNIC) database.

Note:

The host server for InterNIC is: RS.INTERNIC.NET
This database is not a complete list of Internet hosts and users. Typically, only one person per Internet site is listed, usually the network administrator.

Using Whois

To start the Whois tool, do one of the following:

- From Windows 95, click **Start–>Programs–>WS_FTP Pro** (or **WS_FTP95** or **WSFTP32**, depending on which version you installed) and select **Whois**.

- From Windows 3.1, select the **Whois** icon from the WS_FTP Pro program group.

    The Whois window appears.

To show Whois information for a user or an organization:

1. In the Query text box, enter a user or organization name.

    You can also enter a "handle." A handle is a unique identifier that is assigned to each entry in the Whois database. Handles consist of a combination of letters and numbers, such as "ABC45" based on the user or organization name. The handle is displayed in parentheses next to the user or organization name in Whois output.

2. In the Host text box, select either of the databases.

    The *rs.internic.net* database contains information on all users who have registered with the InterNIC.

The *nic.ddn.mil* database contains information on users registered with the network information center of the United States Department of Defense.

3. Select any options you want to use, and then click **OK**.

    The following example shows the Whois window with the results of the query.
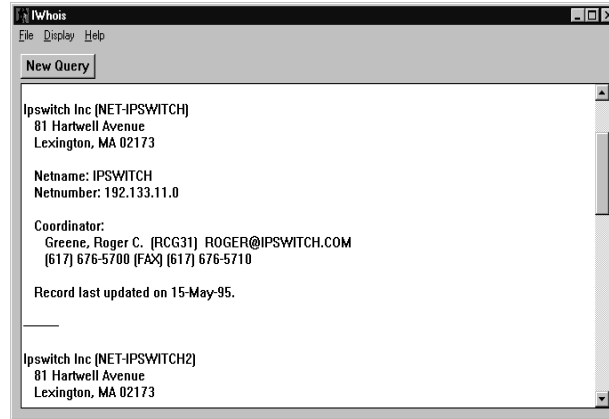
IPing

What is IPing?

IPing is a network diagnostic tool that verifies connectivity to a particular system on the network. IPing sends an ICMP "echo request" in the form of a data packet to a remote host and displays the results for each "echo reply." In essence, IPing asks, "Hello host, are you there?," and waits for a response. IPing is often the first TCP/IP application run on a new network host.

IPing sends one packet per second and prints one line of output for every response returned. No output is produced if there is no response from the host. When IPing terminates, it displays a brief summary of round–trip times and packet loss statistics.

IPing can also be used to track hardware and software problems. When using IPing to isolate hardware or software problems, first 'ping localhost' to verify that the local network interface is up and running. Then, ping hosts and gateways farther and farther away.

Accessing IPing   To start the IPing tool, do one of the following:

- From Windows 95, click **Start–>Programs–>WS_FTP Pro** (or **WS_FTP95** or **WSFTP32**, depending on which version you installed) and select **Ping**.

- From Windows 3.1, select the **Ping** icon from the WS_FTP Pro program group.

    The IPing window appears.

IPing Options   IPing options are set by default. To change IPing options:

1. Click the **Options** button. The IPing Options dialog box appears.

2. Set any options. A description of each option follows this procedure.

3. Click **OK** to confirm the new settings.

Packet Count

The number of packets sent to the remote host.

Packet Size

The size (in bytes) of the packets sent.

Delay (sec)

The amount of time (in seconds) that IPing will wait between sending packets.

Send Text

The text shown as the send message in the graphic on the IPing window. The default is "Hey."

Receive Text

The text shown as the reply message in the graphic on the IPing window. The default is "What."

Decode Packet

Displays decode information for the packets.

No Graphic

Disables the graphic on the IPing window.

Flood Ping

Ignores the delay and sends packets as fast as the network will allow.

Pinging a Host

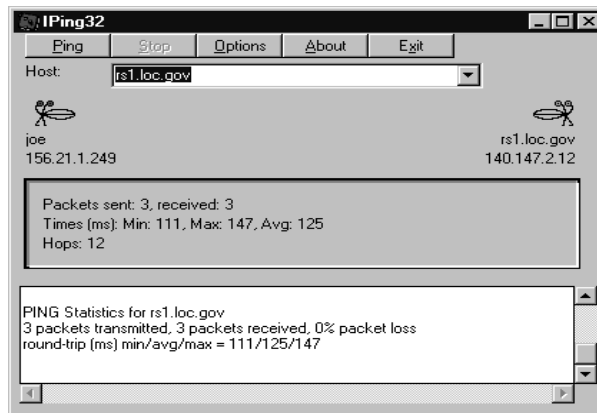To ping a host:

1. In the Host text box enter a hostname. For example: `morphin`

    If the host is not on your network, you must include the domain portion of the address. For example: `morphin.mass.edu`

    You can use the drop–down list box to select a hostname saved from previous IPing sessions.

2. Click the **Ping** button.

    The IPing window displays the results of the ping operation.

Lookup

What is Lookup?

Lookup is a tool that lets you query Internet domain name servers for information about hosts and name servers. You can use Lookup to query the name server for information about various hosts and domains or print a list of the hosts in a domain. Non–interactive mode prints just the name and Internet address of a host or domain.

Starting Lookup

To start the Lookup tool, do one of the following:

- From Windows 95, click **Start–>Programs–>WS_FTP Pro** (or **WS_FTP95** or **WSFTP32**, depending on which version you installed) and select **Lookup**.

- From Windows 3.1, select the **Lookup** icon from the WS_FTP Pro program group.

  The Lookup window appears.

Lookup Options

To set Lookup options:

1. Click the **Options** button. The Lookup Options dialog appears.

2. Set the **Display Full Response** option to see all Lookup information for the host. Use the **Lookup Timeout** option to change the amount of time (in seconds) Lookup waits for a reply before stopping the request. The default timeout is 5 seconds.

3. Click **OK** to confirm the new settings.

Lookup Query Types

The Query Type determines the type of information that the Lookup request will return. You can enter a Query Type to access specific information in a nameserver database, or you can choose the type All to see all information.

In the Query Type drop–down list box, you can select from the following types:

Type	Returns the following information:
A	The host's Internet address
NS	The nameserver for the named zone
MD	MD has been replaced with MX
MF	MF has been replaced with MF
CNAME	The canonical or primary name for the owner. The owner is an alias.
SOA	The domain's "start of authority" information
MB	A host that has the specified mailbox
MG	A mailbox that is a member of the mail group specified by the domain name
MR	A mailbox that is the proper rename of the specified mailbox
ALL	All information
WKS	The supported well–known services
PTR	The hostname, if the query is an Internet address, otherwise a pointer to other information
HINFO	The CPU type and operating system type of the host
MINFO	The mailbox or mail list information
MX	The host that acts as the mail exchanger
TXT	Any text information entered (comments)

Using Lookup

To look up information about a host or domain:
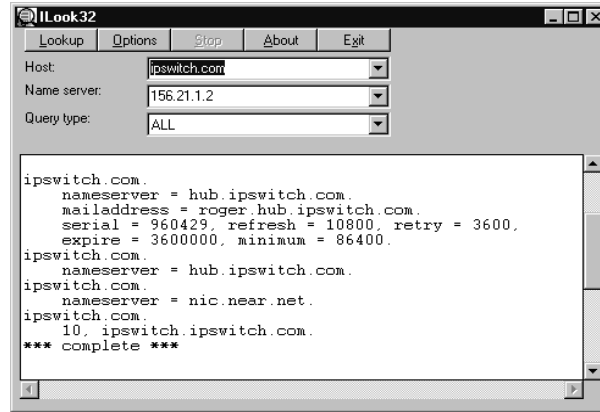
1. In the Host text box, enter an IP address or hostname that represents the host or domain that you want to look up.

2. In the Name Server text box, enter the IP address or hostname of the Domain Name Server that Lookup will use to initiate the request.

3. In the Query Type text box, select a type from the drop–down list. See the table above for a description of each query type.

4. Click the **Lookup** button.

   The results of your query appear in the Lookup window.

```
ILook32                                              _ □ X
 Lookup   Options   Stop    About    Exit
Host:              ipswitch.com              ▼
Name server:       156.21.1.2               ▼
Query type:        ALL                      ▼

ipswitch.com.                                        ▲
     nameserver = hub.ipswitch.com.
     mailaddress = roger.hub.ipswitch.com.
     serial = 960429, refresh = 10800, retry = 3600,
     expire = 3600000, minimum = 86400.
ipswitch.com.
     nameserver = hub.ipswitch.com.
ipswitch.com.
     nameserver = nic.near.net.
ipswitch.com.
     10, ipswitch.ipswitch.com.
*** complete ***                                     ▼
```

Trace

What is Trace?

Trace is a network diagnostic tool that lets you trace and view the actual route an IP packet follows to an Internet host. It also displays response times (in milliseconds), which identify the amount of time it takes the packet to travel the route. Response times will vary depending on the network load. Trace is useful for finding potential trouble spots on large and complex networks that are connected together by routers.

Starting Trace

To start the Trace tool, do one of the following:

• From Windows 95, click **Start–>Programs–>WS_FTP Pro** (or **WS_FTP95** or **WSFTP32**, depending on which version you installed) and select **Trace Route**.

• From Windows 3.1, select the **Trace Route** icon from the WS_FTP Pro program group.

   The Trace window appears.

Trace Options

To set Trace options:

1. Click the **Options** button. The Lookup Options dialog box appears.

2. Set the **Hop Count** option to the maximum number of hops to trace (beyond which the Trace is cancelled). When an IP packet passes from one host to another, it is referred to as one **hop**. If the IP packet goes through two hosts to reach its destination, its route consisted of three hops.

    Set the **Show names** option to show the hostname of each host along the route.

    See the "IPing" section in this chapter for descriptions of the Ping options.

3. Click **OK** to confirm the new settings.

Using Trace

To trace the route that packets take to/from your host:

1. In the Host text box, enter the IP address or hostname of the host to which you want to trace the route.

2. Click the **Trace** button.

    The results of the Trace appear in the Trace window.

```
ITrace32                                          _ □ ×
 Trace   Ping   Lookup   Options   Stop   About   Exit

Host:       rs1.loc.gov                    ▼

TraceRoute rs1.loc.gov (140.147.2.12)
 1 156.21.1.128:
 2 156.21.32.1:
 3 128.224.1.1:
 4 131.192.237.1:
 5 199.94.205.2:
 6 199.94.200.210:
 7 4.0.1.54:
 8 4.0.1.21:
 9 128.167.252.2:
10 192.239.56.10:
11 140.147.2.12: time=1169 ms
host reached
```