WS_FTP Professional

File Transfer Client for Windows

WS_FTP Pro Main Window

When you have established a connection between the local PC and a remote system, the WS_FTP Pro main window displays the directories and files for the 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).

NOTE: In the 4-window versions of WS_FTP Pro, each column contains two list boxes: the top list box shows the available directories; the bottom list box shows the files in the currently selected directory.

The current directory is shown at the top of each column. The list box below the current directory shows all of the directories and files within the current directory. Icons are used to identify directories and files. Any disk drives that you can access also appear in the list.

The buttons to the right of each column provide file and directory operations for that column. These are (from top to bottom):

Buttons
ChgDir
MkDir
RmDir (not on 2 window versions, use **Delete**)
File Mask
View
Exec
Rename
Delete
Refresh
DirInfo

NOTE: The above commands, as well as some additional commands are available from the right mouse button pop-up menus in each of the windows. Select a file or directory and click the right mouse button to view this pop-up menu.

Directory options (2-window version)
In the 2-window version, to change directories, you can edit the directory pathname in the current directory box, or you can use the **ChgDir** button. Also, if you enable the Remember directories option in the Session options, the drop-down list for both the local and remote current directories will show the directories that you visited during the last session.

Sort options (2-window version)
You can use the column headings (Name, Date, Size) above the local and remote system's list boxes to sort the directories and files shown in the list box. See Sorting Directories and Files.

Additional Items Available from Pop-up Menu
Sort (only in 2-window version)
Edit File (only in 2-window version, remote system list box)
Move Files (Directory)
chmod (UNIX)

Message Log

Below the list boxes, there is a message area that logs all queries from the WS_FTP Pro client and all responses from the FTP server on the remote system. You can double-click in this area to expand the listing. You can also click the **LogWnd** button to display the messages in a window.

chmod
(remote popup menu)

This option only appears when one or more files or directories are selected. You are presented with a dialog box allowing you to specify the most common UNIX file attributes.

Note: You must have write permission on the remote system and the system must support the "SITE chmod" command. This is normally only valid on UNIX-based systems. The checked items do not reflect the current permissions of the file.

Move
(popup menu)

This option only appears when one or more files or directories are selected. You are prompted for a directory name to move the files to (the directory must be on the same system).

Note: To move files on the remote system, you must have write permission on the remote system and the system must support the movement of files. Most systems will allow you to move a file over the top of an existing file without warning you!

Edit
(remote popup menu)

This option only appears in the two window version of WS_FTP Pro *when one file is selected* and allows you to edit a remote file locally. This is accomplished by transferring the file to the local system and opening the appropriate application. After that application *exits*, WS_FTP Pro will transfer the file back to the remote system.

Note that your remote session *may* timeout if you take an excessive amount of time to edit the file. This is normally around 4 minutes. In the event of a timeout, the file will not be updated on the remote system and your edits may be lost. You can go back to the WS_FTP Pro window and refresh the directory listing every couple of minutes to keep the session alive.

Local side files can be directly edited via the **View** or **Execute** buttons.

Sort
(popup menu)

The option only appears in the two window version of WS_FTP Pro and allows you to change the sort order of the files that are displayed in the selected listbox. File names can be sorted by name, extension, date, or size. Sort order can also be reversed. Sort order is automatically retained for future sessions. The **Show Full Directory Information** option in the Program options must be enabled for sort to work properly.

Note that information necessary to build a standard list is not available for all host types. If your host type does not sort properly send us a description and the **DirInfo** window contents.

ChgDir - Change Directory
(button or popup menu)

Used to change directories. If a name is highlighted in the directory listbox, the system will change directories to that name. If no name is highlighted, you will be prompted for the directory to change to. Not all systems have the concept of directories so a failure here does not necessarily indicate a failure in this program.

When prompted for a directory, you can also enter a drive letter followed by a colon (for example, d:) to change to a different disk drive.

MkDir - Create Directory (button or popup menu)

Used to create a directory if possible. You are prompted for a directory name and must supply a name that is valid for the current system. Not all systems allow you to make and delete directories remotely so a failure here does not indicate a failure in this program.

RmDir - Delete Directory (button or popup menu)

Used to remove a directory if possible. You are prompted for a directory name. Not all systems allow you to make and delete directories remotely so a failure here does not indicate a failure in this program.

File Mask

This is the blank text box located above the **View** button.

You can enter a file mask that is valid for the system that you are on, and press Return.

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

If you are connected to a UNIX host, you can use "-altr" in the remote system FIle Mask to receive names in date sequence (4 window versions 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.

View
(button or popup menu)

Used to view a file in ASCII format by whatever viewer you have defined in the Program Options (4-window version) or in the General properties (2-window version)..

When you view a file on the remote system, it will be transferred in the selected file transfer mode to the Windows temporary directory and opened in the viewer.

Execute
(button or popup menu)

When you click on a file name in the local side and then click on execute, the file is executed using the same rules as if it were executed in the File Manager.

If you click on a remote file name and then click on execute, it will be transferred in the selected file transfer mode to the Windows temporary directory and will be executed from the current directory using the same rules as if executed in the File Manager.

If the filename has an extension other than .EXE, .COM, .BAT or .PIF, then the file associations from the File Manager are used. If the extension has no association, you will be allowed to specify the association at run time. This association is saved in the WIN.INI file in the Extensions section and will also be valid for the File Manager.

You can set associations by selecting the **Options** button and then selecting File Associations.

Rename
(button or popup menu)

Used to rename a file if possible. Enter the new name for the item and press **Rename** or press **Cancel** to leave the item intact. Not all systems allow you to rename files and directories remotely, so a failure here does not indicate a failure in this program. ***Some systems will allow you to rename a file over the top of an existing file.*** You can also be able to move a file from one directory to another directory by specifying a full or relative path (and the filename).

Delete
(button or popup menu)

Used to delete a file if possible. Press **Yes** to delete the item or **No** to cancel. Not all systems allow you to delete files remotely, so a failure here does not indicate a failure in this program.

In the two window version, **Delete** is also used to delete directories.

Refresh
(button or popup menu)

Refreshes the directory and file list box to display any recent changes to the current directory.

DirInfo
(button or popup menu)

Opens a window that displays the directories and files in the current directory and lists the file size, date and time last edited.

Sorting Directories and Files

You can sort the directories and files on either the local or remote systems' list box by using the column headings (Name, Date, Size) above each list or the Sort options available from the pop-up menu.

Using column headings to sort: (2-window version)

Click on a column heading to sort the directories and files as follows:

- **Name** --   Sort alphabetically by the directory or file name in ascending order; click **Name** again to sort in the reverse order. Click **Ctrl**+**Name** to sort the file names by file extension.
- **Date** -- Sort by the directory or file date, from the newest to oldest; click **Date** again to sort in the reverse order.
- **Size** -- Sort by the directory or file date, from smallest to largest; click **Size** again to sort in the reverse order.
- **^** -- the button to the left of the Name column toggles the display between showing directories on top (before all files), on bottom, or mixed with files.

Using the pop-up menu to sort: (all versions)

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

File Transfer on Remote View, Exec, and Edit

When you view, execute, or edit a file that is on the remote system, WS_FTP Pro will transfer the file to the Windows temporary directory on your local system, then open the file in the associated application. The file is transferred as follows, depending on the transfer mode that is currently selected:

- Auto mode selected -- Checks to see if the file extension is registered (in the Extensions properties). If the extension is registered, the file is transferred in ASCII format. If it is not registered or no file extension is found, the file is transferred in binary format.
- Auto mode off -- Transfers the file in the selected mode, either binary or ASCII.

  If ASCII mode is selected and the file is clearly not in ASCII format, WS_FTP Pro prompts for confirmation that you want to transfer the file in ASCII format. This provides a verification step to ensure that you do not transfer a binary file in ASCII format, which could damage the file.

What is WS_FTP Pro?

WS_FTP Pro is a Windows-based application for transferring files between your PC (the local system) and a remote system. Using WS_FTP Pro, you can connect to another system from your PC, browse directories and files on both systems, and transfer files between the systems.

WS_FTP Pro provides ease of use for the beginner plus a full set of functions for the power user. See WS_FTP features for a list of some of the available features.

WS_FTP Pro is a File Transfer Protocol (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.

There are multiple versions of WS_FTP. Most notable is the existence of the *Professional* version of WS_FTP and the *Limited Edition* version of WS_FTP. The Pro version of WS_FTP offers additional functionality and additional applications for a low cost.

See WS_FTP Configurations for more information. Some of the functions described in this help file are available only in WS_FTP Pro and are identified as such.

For more information on FTP and FTP sites, please refer to the network newsgroups or one of the recent books on the Internet.

New in Version 4.5

Version 4.5 of WS_FTP Pro offers the following new capabilities:

- Support for custom applications developed using the WS_FTP Pro Development Kit.

  The WS_FTP Pro Development Kit lets you create programs to work with WS_FTP Pro for transferring files to or from remote systems or between remote systems. For example, you can use the Development Kit to create an application that automates your regular downloads or uploads from an authoring system or a database system. The Development Kit provides the basic functionality to develop custom applications that use the File Transfer Protocol (FTP) without being concerned with the intricacies of network programming.

- You can disable the Save Password function in the Session dialog box by entering the line SPFLAGS=1 in either:
    - the [config] section of the *WS_FTP.INI* file in the WS_FTP directory
    - the [WS_FTP] section of the *WIN.INI* file in the Windows directory

- New Uninstall option for cleanly removing the WS_FTP Pro application from a system

  To uninstall WS_FTP Pro, run the installation procedure (*install.exe*) and select the "Remove previous installation of WS_FTP" option

- Can now change directories by entering a directory pathname directly in the Local or Remote directory box.

- WS_FTP Pro remembers the directories you visit during a session (on both the local and remote systems) and saves the directory paths in the drop-down list for the Local and Remote directory boxes.

- The new Append command lets you transfer a file or files and have them appended to a selected file on the other system. To select the Append command, click the right mouse button in the file list and select Append from the pop-up menu.

- Provides Year 2000 support through Dec 31, 2037.

- The 16-bit version of WS_FTP Pro now has sorting capabilities for the list of directories and files.

- The View, Execute, and Edit commands now honor the Extensions settings if Auto transfer mode is enabled. (2-window version only)

- Support for new firewall types.

WS_FTP Pro Development Kit

The WS_FTP Pro Development Kit lets you create programs to work with WS_FTP Pro for transferring files to or from remote systems or between remote systems. For example, you can use the Development Kit to create an application that automates your regular downloads or uploads from an authoring system or a database system. The Development Kit provides the basic functionality to develop custom applications that use the File Transfer Protocol (FTP) without being concerned with the intricacies of network programming.

Programs written with the Development Kit require WS_FTP Pro Version 4.5 to run.

For more information about the WS_FTP Pro Development Kit, see the Ipswitch Web site at: http://www.ipswitch.com

WS_FTP Configurations

WS_FTP is available in the following configurations:

Note: For each configuration, there is a ***Professional*** version and a ***Limited Edition*** version. The executable name of the ***Limited Edition*** version is shown in parenthesis. WS_FTP Features describes some of the capabilities of the two versions.

FTPPRO.exe (**WS_FTP**.exe) is designed for 16-bit environments but will work in any environment.

FTP32PRO.exe (**WS_FTP32**.exe) is designed for the 32-bit operating environments presented by Win32s on Windows 3.x, Windows 95, Windows NT and OS/2.   (FTP32PRO is also available for Power PC and Alpha processors.)

FTP95PRO.exe (**WS_FTP95**.exe) is designed for the 32-bit operating systems of Windows 95 and Windows NT and requires the multi-threading capabilities.   (FTP95PRO is also available for Power PC and Alpha processors.) *Operation of WS_FTP95 (and FTP95PRO) is not blocked under Win32s but some features like remote edit will not work under Win32s.*   **WS_FTP95 is not tested or supported in the Win32s environment.**

The internal workings of the 2 window version are considerably different than earlier 4 window versions of WS_FTP. This allows a considerable number of enhancements to be possible including the retention of file dates and times on transfers from remote systems to local systems and automatic UNIX link processing. So far we have not found a reliable way of setting the file date and time on remote systems.

WS_FTP Features

You can use WS_FTP to:
- Create a connection between a local system and a remote system
- Create and retain session profiles to automate the logon and connection to frequently used remote systems
- 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
- Access the vast store of information on anonymous FTP sites

In addition to the above features, *WS_FTP Pro* also includes the following:
- Resume interrupted file transfers -- If a file transfer is interrupted, WS_FTP Pro asks if you want to continue the transfer when you re-connect to the remote host.
- Drag-and-drop file transfer between a local and remote 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)
- Free Bonus Pack includes Network tools -- Ping, Trace, Finger, Whois, and Lookup.
- WS_FTP Pro Development Kit (available separately) lets you write custom file transfer applications to automate regular uploads or downloads. See the Ipswitch Web site at http://www.ipswitch.com for more information.

FTP Server

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.

Internet address

An Internet address or IP address is a unique identifier that defines a system's location on the Internet network. IP addresses are 32-bit addresses that are commonly specified in Internet dot notation, which consists of four numbers from 1 to 255 that are separated by dots (.), for example: 156.21.50.1

Each IP address is mapped to a unique hostname as it is easier for people to remember names than it is to remember strings of numbers. For example, the IP address 156.21.50.1 maps to the system named superserv.ipswitch.com.

Local system vs. Remote system

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.

Connecting to Remote Hosts

WS_FTP Pro contains a remote host profile capability. Once the profile information is entered, you can connect to a remote host by simply clicking the **Connect** button, choosing the host from the Profile Name drop-down list and then clicking the **OK** button.

Session Profile Information

Profile Name

Host Name

Host Type

User ID

Password

Account

Anonymous Login

Save Password

Auto Save Config

Initial Directories

Comment

Save/Delete Buttons

Advanced...

CONNECT - General Properties

WS_FTP Pro contains a remote host profile capability. Once the profile information is entered, you can connect to a remote host by simply clicking the **Connect** button, choose the host from the Profile Name drop-down list and then click the **OK** button.

Profile Name - This is a profile or configuration name and can be anything you desire to identify the connection you are creating. The length of this name is restricted as it is used as a section name in the WS_FTP.INI file.   You can select from a number of preconfigured profiles for some of the popular FTP sites. Click on the Profile Name list box to show the choices. *This name can (and should) be different than the* **Host Name/Address**!

Host Name/Address - This is either a fully qualified Internet host name or an IP address.

Host Type - If you know the host type, select it from the drop down list. If you don't know, try "auto detect". If you can connect to a remote host but don't get a directory listing, try changing the host type in the Options dialog box. We are still working on the "auto detect". It does take care of about 90% of all hosts. **NOTE:**   Check the messages log (click the **LogWnd** button) to see if the Host Type is identified there. Then, select the corresponding host type from the drop-down list.

UserID - Enter the userid that you wish to use for this configuration.   (or you can click on the **Anonymous Login** check box to automatically enter anonymous as the userid.)

Anonymous check box - Checking this box will automatically enter anonymous as your userid and enter your e-mail address as the password.

Password - Enter the password that you wish to use for the userid that you entered.   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 logins. Instead of entering your password for anonymous logins, it is recommended that you simply click on the **Anonymous Login** checkbox.

Save Pwd check box - Check this box *only if you are the only user of your computer* and no one else has access to your Windows directory. Passwords are stored in the WS_FTP.INI file and even though they are encrypted, it is an easy encryption to break.

Note: This check box can be removed from the options by entering the line SPFLAGS=1 in either:

- the [config] section of the *WS_FTP.INI* file in the WS_FTP directory
- the [WS_FTP] section of the *WIN.INI* file in the Windows directory

Account - Enter the account that you want to use for the userid that you entered, if the remote host requires an account. (In most cases, this field will be left blank because most hosts do not use an "account" for authentication.) Note that the account is used for VM/CMS hosts for the initial password to the user's default directory. When you change directories (**ChgDir**) on a VM/CMS host you are prompted each time for the password to connect to that directory.

Comment - Enter any comments you want to include with this session profile.

For advanced session profile settings, see also:

Startup properties
Advanced properties
Firewall properties

CONNECT - Startup Properties

Initial Remote Host Directory -- Enter the initial remote start directory for interactive sessions.

Initial Local Directory -- Enter the initial local start directory for interactive sessions.

Initialize Command -- Enter any commands that need to be issued to the remote host at the beginning of the session. For example, the command SITE UMASK 022 changes the UMASK used when creating files (on a UNIX system) Separate multiple commands with a semi-colon (;).

Local File Mask - Enter the initial startup arguments for the listing files on the local system. For example, *.zip will show all .zip files in the startup directory. If blank, this defaults to *.* to show all files and directories.

Remote File Mask - Enter the initial startup arguments for the remote LIST command.   This could be "-al" to display all files on a UNIX system or something like "*.zip".

Time Offset in Hours (2-window version only) - Enter a number of hours to add to the remote file date and times to convert to the local date and time. There is no standard for specification of date/time, but often it is displayed in GMT. Use a positive number to add, or a negative number to subtract.

CONNECT - Advanced Properties

Connection Retry - Number of times to retry establishing a connection if the first connection attempt fails. This can be from 0 to 40 times.

Network Timeout - This is the number of seconds before WS_FTP Pro 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 than your WinSock DLL uses will cause the connection to fail in that amount of seconds. Values may be from 5 to 120.

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

Passive Transfers - Check if you want the client to establish the data connection to the remote host instead of the host establishing the data connection to the local client. This is necessary for some firewall and gateway configurations and when you get failed data channel errors. ***Note that not all remote host systems support passive transfers***.

CONNECT - Firewall Properties

Use Firewall check box - If you are behind a firewall host, click this box. You must insure that the firewall information has been correctly filled out. You can specify a PORT to be used for the firewall.

Host Name - specify the name or IP address of the firewall.

UserID - enter the firewall userid or leave blank if not used.

Password - enter the firewall password for the specified userid or leave blank if not used.

Save Password check box - Check this box *only if you are the only user of your computer* and no one else has access to your Windows directory. Passwords are stored in the WS_FTP.INI file and even though they are encrypted, it is an easy encryption to break.

Port - specify the firewall port.

Firewall Type

SITE hostname - requires a firewall host name, userid 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, userid and password. User is logged on the firewall and the remote connection is established using the command:

USER remote_userid@remote_host

Note: remote_userid and remote_host are specified in the general session properties.

Proxy OPEN - requires firewall host name only; userid and password are ignored. The command **OPEN remote_host** is sent to firewall upon initial connection.

Transparent - requires firewall userid and password for transparent logon to a firewall.

USER with no logon - requires a firewall host name only; userid and password are ignored. The command **USER remote_userid@remote_host** is sent to the firewall upon initial connection.

USER fireID@remoteHost - requires a firewall host name, userid and password. The command **USER fireID@remote_host** is sent to the firewall upon initial connection.

USER remoteID@remoteHost fireID - requires a firewall host name, userid and password. The command **USER remoteID@remote_host fireID** is sent to the firewall upon initial connection.

USER remoteID@fireID@remoteHost - requires a firewall host name, userid and password. The command **USER remoteID@fireID@remote_host fireID** is sent to the firewall upon initial connection.

Advanced Profile Parameters

Connection Retry

Network Timeout

Remote Port

    Initialize Command

Local file mask

Remote file mask

Passive transfers

Use Firewall

FTP Sites

Many companies and organizations maintain "FTP sites" where you can download evaluation versions of software and obtain product information. You can access these sites using an anonymous login. WS_FTP Pro provides a number of predefined profiles for some

of the popular FTP sites.

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 files available on the site and other information, such as restricted hours for using the site.

Profile Name

This is a profile or configuration name and can be anything you desire to identify the connection you are creating. The length of this name is restricted as it is used as a section name in the WS_FTP.INI file.

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

Remote Host Name

This is either a fully qualified [Internet host name](#) or an [IP address](#).

Remote Host Type

If you know the host type, select it from the drop down list.   If you don't know, try "auto detect".

If you can connect to a remote host but don't get a directory listing, try changing the host type in the OPTIONS dialog box.   I am still working on the "auto detect". It does take care of about 90% of all hosts.

NOTE: Check the messages log (click the **LogWnd** button) to see if the Host Type is identified there. Then, select the corresponding host type from the drop-down list.

User ID (userid)

Enter the userid that you wish to use for this configuration.   (or you can click on the **Anonymous Login** check box to automatically enter anonymous as the userid.)

Password

Enter the password that you wish to use for the userid that you entered.

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 logins.

Instead of entering your password for anonymous logins, it is recommended that you simply click on the **Anonymous Login** checkbox.

Firewall Password

Enter the password for the firewall host for the userid that you entered.

Account

Enter the account that you wish to use for the userid that you entered if the remote host requires an account. Note that the account is used for VM/CMS hosts for the initial password to the user's default directory. When you change directories (**ChgDir**) on a VM/CMS host you are prompted each time for the password to connect to that directory.

Connection Retry

Number of times to retry establishing a connection if the first connection attempt fails. This can be from 0 to 40 times.

Timeout

This is the number of seconds before WS_FTP Pro 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 fail in that amount of seconds.

Port

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

Anonymous Login

Checking this box will automatically enter anonymous as your userid and enter your e-mail address as the password.

Firewall

If you are behind a firewall host, click this box. You must insure that the firewall information has been correctly filled out. You can specify a PORT to be used for the firewall.

Host Name - specify the name or IP address of the firewall.

UserID - enter the firewall userid or leave blank if not used.

Password - enter the firewall password for the specified userid or leave blank if not used.

Save Password check box - Check this box *only if you are the only user of your computer* and no one else has access to your Windows directory. Passwords are stored in the WS_FTP.INI file and even though they are encrypted, it is an easy encryption to break.

Port - specify the firewall port.

WS_FTP supports the following types of firewalls:

SITE hostname

Firewall host, userid and password are required. User is logged on the firewall and the remote connection is established using **SITE remote_host**.

USER after logon

Firewall host, userid and password are required. User is logged on the firewall and the remote connection is established using **USER remote_userid@remote_host**

USER with no logon

Firewall host required, userid and password are ignored.   **USER remote_userid@remote_host** is sent to firewall upon initial connection.

Proxy OPEN

Firewall host required, userid and password are ignored.   **OPEN remote_host** is sent to firewall upon initial connection.

PASV Mode

There is another kind of firewall, which is not specifically configured. A router-based firewall is one which allows connections to be established in one direction only. The router itself is invisible to the user. However, the default mode within FTP is that "data" connections are established by the server rather than the client. To work with a router-based firewall requires using the PASV Mode of FTP. The PASV mode of operation can be turned on from the Options screen.

USER fireID@remoteHost - requires a firewall host name, userid and password. The command **USER fireID@remote_host** is sent to the firewall upon initial connection.

USER remoteID@remoteHost fireID - requires a firewall host name, userid and password. The command **USER remoteID@remote_host fireID** is sent to the firewall upon initial connection.

Transparent - requires firewall userid and password for transparent logon to a firewall.

(Code for type 0 was initially provided by Jeff Welty)

(Code for type 1 and PASV was initially provided by Robert E. Stockwell.)

Save Password

Check this box **only if you are the only user of your computer** and no one else has access to your Windows directory. Passwords are stored in the WS_FTP.INI file and even though they are encrypted, it is an easy encryption to break (especially since the source to this algorithm has been published).

Save/Delete buttons

The **Save** and **Delete** buttons are provided to help you manage the session profiles.

Use the **Save** button to save an entry without trying to actually connect to the host. Use the **Delete** button to remove unwanted entries. The **Cancel** button exits the dialog box without saving any changes to the current configuration.

If the **Auto Save Config** option is checked, a configuration is automatically saved when you select the OK button and there is no imposed limit on the number of configurations that you can have.

Auto Save Config

When enabled, automatically saves the session configuration information when you click **OK**.

You can also set this option in the Program options so it will be enabled for all new session profiles that you create.

Initial Directories

Remote Host -- Enter the initial remote start directory for interactive sessions.
Local PC -- Enter the initial local start directory for interactive sessions.

Comment

Enter any comments you want to include with this session profile.

Transferring files or directories

To transfer files or directories:

1. Select the files or directories on the source system.
2. Open the directory to which you want to transfer files on the destination system.
3. Select the file transfer mode.
4. Transfer the files using the left and right arrow buttons located between the listboxes.
   Click on the **left arrow** button to transfer files from the remote to the local system.
   Click on the **right arrow** button to transfer files from the local to the remote system.

File uploads and downloads do timeout. You can **Cancel** the operation in the event that you lose the connection to the remote host.

During the transfer of files, the **Help** button changes to **Cancel** if the Show transfer dialog option is off or a Transfer Status dialog box is displayed if the **Show transfer dialog** option is on. The current transfer may be cancelled by clicking the **Cancel** button. File uploads will cancel immediately while file downloads may take up to 30 seconds to cancel. In both cases, the partial file is not deleted automatically. You may have to click the **Cancel** button a second time!

NOTE: You can hold the CTRL key down when you click on the transfer arrow and you will be prompted for a destination filename. You can also click on the transfer arrows when no file is selected and you will be prompted for the source file name. This can then be a full pathname or a simple name.

Transferring multiple files
Appending Files
Transfer mode
    Resuming a File Transfer After Failure
Double clicking in list boxes
Changing Directories
HINTS
Auto Transfer of Files

Command Line Options

WS_FTP Pro Command

The command for using WS_FTP Pro from the command line differs depending on which version you installed. Replace **ftpro** with the executable name of the version you are currently using, for example **ftp32pro**, **ftp95pro**. See WS_FTP Configurations for a list of the executable names for each version.

Syntax

Use the following syntax to transfer a file from the command line.

(Items enclosed in brackets, for example [args], are optional. Italics indicate a variable, for example *hostname*. The bar character "|" means OR, for example *hostname* | local means you enter either a hostname or the word "local.")

Note: Use the -m argument for transferring multiple files. (Available in the Pro version only)

To transfer a file from the remote system to the local system:

ftp95pro [args] *hostname* | *profilename*:*pathname*/*filename*   [local:*pathname*/[*filename*]
where:
Optionally, you can specify any of the command arguments.

hostname: or *profilename*:

> *hostname* must be the full domain name or the IP address of a remote host. The userid will be anonymous and the password will be the specified e-mail address. hostname must be followed by a colon.

> *profilename* must be the name of a session profile created in the Session Properties dialog box. If the profile contains your username and password (and you checked the Save Password box), these are used. If the profile is not in the default .ini file, use the -i argument to specify another .ini file. *profilename* must be followed by a colon.

pathname/*filename*

You enter the pathname, including the drive letter, and the filename for the file on the remote system. (For example, c:\docs\report.txt)

local:*pathname*/*filename*

You enter the pathname, including the drive letter, and the filename for the file on the local system. (The pathname/filename is preceded by the word local followed by a colon, local:)

Processing rules for this operation are to use the host, userid, password, account and gateway/firewall information specified in the **profilename** if one exists. If one doesn't exist, it is assumed that the **hostname** is an actual host and 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:

ftp95pro [args] local:*pathname*/*filename*   *hostname* | *profilename*:*pathname*/[*filename*]
where:
Optionally, you can specify any of the command arguments.

local:*pathname*/*filename*

You enter the pathname, including the drive letter, and the filename for the file on the local system. (The pathname/filename is preceded by the word local followed by a colon, local:)

hostname or *profilename*:

    hostname must be the full domain name or the IP address of a remote host. The userid will be anonymous and the password will be the specified e-mail address. hostname must be followed by a colon.

    profilename must be the name of a session profile created in the Session Properties dialog box. If the profile contains your username and password (and you checked the Save Password box), these are used. If the profile is not in the default .ini file, use the -i argument to specify another .ini file. *profilename* must be followed by a colon.

pathname[/*filename*]

Enter a pathname, and optionally a filename, to which you want to copy the file on the remote system. If you do not specify a filename, the local (original) filename is used.

 See also:

[File Transfer Notes](#)

[Transferring Multiple Files](#)

[Examples of Command Line File Transfer](#)

[Automating file transfers](#)

File Transfer Notes

Please note the following:

- If the hostname or profilename does not specify an anonymous FTP session and the host requires a password, but it is not specified in the session profile, you will be prompted for the password (and account if applicable).

- The * and ? wildcards can be used in file names to transfer multiple files to a directory.

- The Preserve Date and Convert Extensions properties do not work with command line transfers.

- 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 Pro prompt for the command line.

    ftp95pro [args] -ask

Command Line Arguments

[args]

-i *inifile*   Forces WS_FTP Pro to use the specified *.ini* file, where *inifile* is the name of the .ini file. Use this option if the path is not known to your system or when you want to specify a particular *.ini* file that contains the profile you want to use. This argument must precede all other arguments.

-p *profilename*

    Run the profile to connect to a remote system, where *profilename* is the name of a session profile (created in the Session Properties dialog box). If the profile contains your username and password (and you checked the Save Password box), these are used. The profile must be in the default *.ini* file or in an *.ini* file specified with the *-i* argument. This argument must precede all other arguments, except *-i*.

-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. (Using a profile is more secure as the password is encrypted.)

-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 Pro to prompt for user input when no one is there to press a key.

-lower   Forces the use of lower case letters in file names.

-s *hostname* | local:*pathname*/*filename*

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

    -s *profilename*:c:/*pathname*/*filename*
    (Remote source)

    -s *hostname*:c:/*pathname*/*filename*
    (Remote source)

    -s remote:c:/*pathname*/*filename*
    (Remote source)

-s local:c:*pathname**filename* (Local source)

-d *hostname* | local:*pathname*/*filename*

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

-d *profilename*:c:/*pathname*/*filename*
(Remote destination)

-d *hostname*:c:/*pathname*/*filename*
 (Remote destination)

-d remote:c:/*pathname*/*filename*
 (Remote destination)

-d local:c:*pathname**filename*
 (Local destination)

-m *filename_of_file_containing_args* (Pro version only)

Transfers multiple files. See [Transferring Multiple Files](#).

See also:
 [Examples of Command Line File Transfers](#)

Transferring Multiple Files

There are two ways to transfer multiple files:

- Use the * or ? wildcards in the filename.
- Use the *-m* argument and place the transfer commands in a file.

Using Wildcard Characters to Transfer Multiple Files

You can use the * and ? characters in filenames to specify multiple files.

The following command downloads all zip files in the download directory on ftp.ipswitch.com to a local directory:

      ftp95pro ftp.ipswitch.com:\download*.zip   local:c:\download\

Using the -m argument

You can use the -m argument to invoke a file that contains multiple file transfer commands.

-m *filename_of_file_containing_args*

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.txt

where transfer.txt contains the following lines:

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

Each text line must contain only one command line. You can use any of the command line arguments in the transfer file. Multiple lines will be treated as a connect/transfer/disconnect for each line. If a directory transfer is specified, it will complete in one connection.

Examples of Command Line File Transfers

The following command uploads a file to a remote file:

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

The following command downloads a file to a local file:

      ftp95pro ftp.ipswitch.com:\download\file.zip   local:c:\download\file.zip

The following command downloads all zip files in the download directory on ftp.ipswitch.com to a local directory:

      ftp95pro ftp.ipswitch.com:\download*.zip   local:\download\

The following command invokes the Session Profile dialog box with the profile named download. You can use this command to create an icon that launches a profile, and then connect to the system by clicking the **Connect** button.

      ftp95pro -p download

The following command 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

Command Line Options Info

To set up an Icon on your desktop to automatically invoke a file transfer operation:

1. Set the "Command Line" for the icon to one of the following:
   To receive a file:
   "**ws_ftp [args]** *hostname*:*full_path_to_file*   [**local:***full_path_to_destination*]"
   To send a file:
   "**ws_ftp [args] local:***full_path_to_file hostname*:*full_path_to_file*"

2. Set the "Working Directory" to where you want the file to be placed if it is not specified in the command line.

3. Set the "Description" to something descriptive.

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 Pro can resume the transfer when you reconnect to the remote system. When you reconnect, WS_FTP Pro asks if you want to resume the transfer.

Click **Yes** to resume the transfer. 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 <u>Enable auto reget of failed transfers</u> option in the Pro options.

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

Hints

1. If you have problems transferring files, try changing the MTU of your stack to 576.
2. Make sure you have binary mode set to transfer ZIP or EXE files.
3. Make sure your modem is set to hardware flow control if you are using a slip or PPP connection.
4. If you get a "Can't open file for write" message, exit to DOS, enter SET and make the directories specified by your TMP and TEMP environment variables.
5. Hold the CTRL key down when you click on a transfer arrow to be prompted for a destination file name.
6. Click the right mouse button anywhere in the main windows for additional functions.

Change default local directory
Overcoming name conversion problems
Changing Directories
Execute buttons
Double clicking
Transfer Mode
Saving a "viewed" file
Drag-and-Drop
No directory listing
Access to debug commands

Changing the default directory

To set the default local startup directory to be something other than where WS_FTP Pro is located:

1. Highlight the WS_FTP Pro icon and press ALT-ENTER (or select File Properties) in the Program Manager.

2. Change the Working Directory to your desired directory.

Overcoming name conversion problems

If you have problems with remote to local file name conversions, check the Prompt option in the **Options** dialog box. You will then be shown the proposed file name and allowed to change it. Alternatively, you can hold the CTRL key down when you initiate the transfer and you will be prompted for each destination filename.

Changing Directories

To change directories, click on the desired directory and press the **ChgDir** button.

If you want to change to a directory without traversing the full tree, make sure there is no name selected in the list box and click on **ChgDir** (works with **RmDir** also). When changing drives on a remote system, you usually have to enter a directory name in addition to the drive letter.

You can also double-click on a directory name to change to that directory.

In the 2-window version, to change directories, you can edit the directory pathname in the current directory box, or you can use the **ChgDir** button. Also, if you enable the Remember directories option, the drop-down list for both the local and remote current directories will show the directories that you visited during the last session.

See also Changing the default local directory.

Double-clicking

You can double-click on a directory name to change to that directory or double-click on a file name to transfer that file (or to execute the file), depending on the how you set up the double-click options in the Program options.

You can choose to have the double-click action activate one of the following:

Transfer file

View file

Nothing

File Transfer Modes

Use **Binary** mode to transfer all files unless you know the file only contains text, then use **ASCII**.

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.

Transfer Modes:
- ASCII
- BINARY
- L8
- Auto Detect

Saving a "viewed" file

If you use **View** to display a remote file and then want to save that file and have the viewer set to **Notepad**, you can select the **SaveAs** menu option and save the file to whatever name you want.

Transferring Multiple Files

To transfer multiple files, use the SHIFT or CTRL keys when selecting filenames (this is the standard windows method of selecting files).

To select two or more items in sequence:

1.   Click the first file that you want to select and drag the mouse pointer down, releasing the mouse button on the last file in the group.

- OR -

1.   Click the first file that you want to select.

2.   Press and hold down SHIFT while you click the last file in the group.

To select two or more items out of sequence:

Press and hold down CTRL while you click each file.

To cancel a selection:

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

After selecting the desired files, press the desired transfer direction button (**left arrow** or **right arrow** button).

Appending Files

You can select one or more files on the source system and transfer those files to the destination system, appending them to a destination file.

1. Select one or more files on the source system.
2. Select one file on the destination system to which the source system files will be appended.
3. In the destination system listbox, click the right mouse button, and then select **Append** from the popup menu.

Drag-and-Drop Feature

You can drag one or more files from the Windows File Manager and drop them anywhere on the main window (or when iconized) and they will be transferred to the current directory of the remote host using the current transfer mode (ASCII/binary).

NOTE: You cannot drag and drop directories in the 4 window versions of WS_FTP, nor can you drag and drop from the remote host to another application.

PRO Drag-and-Drop

In the PRO versions, you can drag-and-drop between windows and drag to other applications. In the 2 window version, you can *move* files by dragging a file or group of files to a directory on the same system (move the mouse over the directory name so that the directory name becomes highlighted). Files can also be copied to a directory other than the displayed directory (on the other system) in the same way. *The ability to use the enhanced dragging and dropping in the PRO version is controlled by an option in the Pro Options dialog box.*

Directory Display Problems

If you can connect to a remote host but don't get a directory listing, try changing the host type in the Session Profile or Session options dialog boxes. We are always working on the "auto detect" and host types. It does take care of about 90% of all hosts.

Some hosts MAY not be properly auto-detected and must be set at connect time!

If you have a host that just won't display correctly, please follow this procedure.

If the host is available via anonymous FTP or if you can create a test account for us, send access information to `<junodj@csra.net>`

If not,

1. Go to **Program Options** and turn on the **Debug Messages** option.
2. Exit WS_FTP and restart.
3. Connect to the remote host.
4. Press the **LogWnd** button and **Save** the log window to a file.
5. Press the **DirInfo** button and **Save** the file listing to a file.
6. Mail both files to `<junodj@csra.net>` along with as much of a description of the host as possible.

Debug Menu

You can bring up a pop-up menu by clicking the right mouse button when the cursor is pointing at the gray area of the main window. This gives you access to some additional FTP commands.   **(NOT RECOMMENDED FOR THE BEGINNER!)**

Options

WS_FTP Pro provides many options through which you can tailor its operation to meet your particular file transfer needs. To access these options, click the **Options** button on the main window. A dialog box appears from which you can select the following options:

> Program Options
>> Program options affect the layout and operation of WS_FTP Pro.
>
> Session Options
>> Session options affect the current session (and session defaults)
>
> Pro Options
>> Pro options affect all sessions and the overall operation of WS_FTP Pro
>
> ASCII Extensions
>> Extensions are used for Auto Mode (auto detect binary/ascii)
>
> Extension Conversions
>> Change extensions on transfer
>
> File Associations
>> Associations affect execution by **Exec** button.
>
> Save Directory Names
>> Saves the local and remote directory names in the current session profile.
>
> Save Window Locations
>> Saves the current main window size and location.

Program Options

Options available in this dialog affect the display and operation of WS_FTP for all configurations.

Alternate Screen Layout
Show Buttons at Top of Screen
Show Full Directory Information
Auto Save Host Configurations
Verify Deletions
Show Connect Dialog on Startup
Debug Messages
Text Viewer
E-Mail Address
Log filename
Enable log
Listbox Font
Scale Font
Double Click
     Transfer
     View
     Nothing
Transfer Rates -- set to desired transfer rate display.
Recv Bytes
Send Bytes

Program and Session Options

In the WS_FTP Pro window, click the **Options** button. The properties dialog box appears. The Properties dialog box contains tabbed sections for the following categories:

General properties -- settings for basic operations of WS_FTP Pro.

Advanced properties -- settings for advanced operations of WS_FTP Pro.

Display properties -- settings for the layout of the main window.

Sounds properties -- settings for sounds that notify you of FTP events.

Session properties -- settings for the current session and defaults for all sessions.

Pro properties -- settings for Pro only features.

Sort properties -- settings for sorting the directory and file names in the list boxes.

Convert properties -- lets you convert file extensions on transfer.

Extensions properties -- lets you specify extensions to be transferred in ASCII format when using Auto Mode file transfer.

Associations properties -- lets you associate file extensions with an executable program.

OPTIONS - General

[E-Mail Address](#)
[Text Viewer](#)
[Log Filename](#)
[Enable Log](#)
[Verify Deletions](#)
[Debug Messages](#)
[Remote Edit uses ShellExecute](#)

[Reset Window Locations](#)

[Save Window Locations](#)

OPTIONS - Advanced

Show Full Directory Information - leave enabled to display file information.

Auto Save Host Configurations

Show Connect Dialog on Startup

Double Click Action

     Transfer file

     View file

     Nothing

Network Buffer Size -- you can set the buffer sizes for the following:

     Receive Size

     Transmission Size

Transfer Rates -- set to desired transfer rate display.

OPTIONS - Display

Options available in this dialog affect the display of WS_FTP for all configurations.

Alternate Screen Layout
Show Buttons at Top of Screen
Hide Directory Buttons
Auto Scale Fonts
Display 4 digit years
Listbox Font

OPTIONS - Sounds

Connection Success - If enabled, the specified wave file (or beep) will be sounded when a connection succeeds.

Connection Failure - If enabled, the specified wave file (or beep) will be sounded when a connection fails.

Transfer Complete Success - If enabled, the specified wave file (or beep) will be sounded when a transfer succeeds.

Transfer Complete Failure - If enabled, the specified wave file (or beep) will be sounded when a transfer fails.

Any Failure - If enabled, the specified wave file (or beep) will be sounded when any error occurs during the retrieval of directories, renaming or deleting files or directories, or during other FTP errors. To have the same sounds as earlier versions of WS_FTP Pro, turn off this option.

Sounds

    None - no sounds

    Beeps - use system sounds

    Wave - play the specified WAV files

OPTIONS - Session

These options reflect the options in use for the current session and are specific for the configuration. If you want to make the options be the default for all sessions, click the **Set as Default** button. Sessions can still have unique options other than default by setting the option in this dialog box and clicking **Apply**. *Note that only options that are different than the default options are saved for the session.* If you change the defaults later, you may want to re-check the session options for a configuration.

Host Type

Auto Update Remote Directories

Show Transfer Dialog

Use PASV Transfer Mode

Use Firewall

Force Lowercase

Convert Extensions

Remember Directories

Save Current Directories as Connection Directories

For more session settings see Session (continued) ...

OPTIONS - Session (cont)

These options reflect the options in use for the current session and are specific for the configuration. If you want to make the options be the default for all sessions, click the **Set as Default** button. Sessions can still have unique options other than default by setting the option in this dialog box and clicking **Apply**. *Note that only options that are different than the default options are saved for the session.* If you change the defaults later, you may want to re-check the session options for a configuration.

File Names

Send Unique (host assigns name)
Receive Unique (PC assigns name)
Prompt for Destination File Names

Startup Transfer Mode

ASCII
BINARY
L8
Auto Detect

OPTIONS - Pro

You can use the Pro options to enable or disable certain features of WS_FTP Pro. These options only exist in the Pro versions of WS_FTP.

Enable drag and drop between windows
Enable auto reget of failed transfers
Preserve file time on transfer from remote
Prompt for overwrite of same or newer files
Don't transfer older or same files during directory transfer

Note: The internal workings of the 2-window version are considerably different than earlier 4- window versions of WS_FTP. This allows a considerable number of enhancements to be possible including the retention of file dates and times on transfers from remote systems to local systems. So far we have not found a reliable way of setting the file date and time on remote systems.

OPTIONS - Sort

Directory and file name sorting for both the local and remote list boxes can be set (and saved) from here.

See also Sorting Directories and Files.

OPTIONS - Convert

The Convert Extensions 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 the Convert Extensions dialog box and enable the Convert Extensions option in the Session options.

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 (destination file).
3. Click the **Add** button.
     The extension conversion appears in the listbox.

The listbox shows all defined extension conversions.

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

NOTE: You MUST enable the Convert Extensions option in the Session options for this to work!

OPTIONS - Extensions

The Extensions dialog box is used to specify the transfer mode for different file extensions. When <u>Auto Detect</u> is selected for the transfer mode, WS_FTP Pro will transfer all files in binary mode, unless the extension is in this dialog box (which stores entries in the WS_FTP.EXT file). The specified extensions will be transferred in ASCII mode.

To add a file extension to the Auto Detect list:

1. In the ASCII Mode text box, enter a file extension.
     (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 will transfer in ASCI mode when using Auto Detect.

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

OPTIONS - Associations

The Associate 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, the file is opened in the associated application.

To set up an association:

1. In the File with Extension text box, enter the file extension
   to be associated with an executable program.
2. In the Associate With text box, enter the executable program to run when
   the **Exec** button is clicked. You can use the **Browse** button to browse your
   directories and files to locate the executable program.

NOTE: On Windows 95 and Windows NT, the 2 window version of WS_FTP Pro calls *ShellExecute* **to execute the file through the shell.   If this FAILS, then the associations specified in this dialog are used.   These associations are unique to WS_FTP Pro in this environment.**

Alternate Screen Layout
(Program option)

Controls the main window display layout. The alternate layout has the local directory and file list on top and the remote directory and file list on the bottom. Directories are on the left and file lists are on the right.

Show Buttons at Top of Screen
(Program option)

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

Hide Directory Buttons

If checked, hides the column of buttons (ChgDir, MkDir, etc).   These functions will then be available only from the right-mouse pop-up window.

Show Full Directory Information
(Program option)

When turned on, additional file information is displayed when possible. Not all host types are supported for this option! The client does not attempt to decipher or interpret this information; it is only displayed for human consumption.

Auto Save Host Configurations
(Program option)

If checked, WS_FTP Pro will automatically save the Session Profile when you click **OK** in the Session Profile dialog box. Though this option also appears in the Session Profile dialog box, its state is only saved in this dialog box.

Verify Deletions
(Program option)

If checked, WS_FTP Pro will prompt you for confirmation when you delete files.

Show Connect Dialog on Startup
(Program option)

Controls whether or not WS_FTP Pro displays the connect (Session Profile) dialog box when WS_FTP Pro first starts.

Debug Messages
(Program option)

This enables extra debug messages in the message window at the bottom of the main window. (These messages generally are of no value to the user as all error messages are displayed even when this option is off.)

Text Viewer
(Program option)

This is the program that is invoked when you click the **DirInfo** or **View** button. The default value is the Windows Notepad.

Log Filename

Specify the name of the file where interactive transfers are logged. Note that this should be a full pathname if you don't want log files in every directory. When the **Enable log** option is enabled, WS_FTP Pro will write the message log to this file.

Enable Log

Enables logging of interactive transfers. WS_FTP Pro writes the message log to the file specified in the **Log filename** option.

E-Mail Address
(Program option)

This is used as the default password for anonymous logins as required by most anonymous FTP sites.

It is recommend that you place a minus (-) sign as the first character of your e-mail address in order to turn off descriptive messages on the remote host.

Remote Edit Uses ShellExecute

Check this box if, when selecting a remote file for editing, you want to open the selected file in its associated application without transferring the file to a temporary file on your local system. The file will be opened in the application associated with its extension (for example, a *.doc* file will be opened in Microsoft Word). See Associations for more information.

Note: When this box is not checked, a remote file selected for editing will be transferred and given the extension *.tmp*, thus the transferred file (such as a *.doc* file) will not open in its associated application.

To edit a file, select it, click the right mouse button in the file list, and then select Edit File from the popup menu.

Reset Window Location

Resets the current main window size and location to the original settings.

Save Window Locations

Saves the current main window size and location. In order to save column and internal sizes, the main window must not be maximized.

Display 4 digit years
(Program option)

In the Date field in the list of directories and files for the local and remote systems, displays the year in four digit format (1997) rather than two (97).

ListBox Font
(Program option)

Changes the font used in list boxes. *System Variable,* which is a variable font, is the default. *System Fixed* is the fixed system font and will improve the alignment of columns in the boxes. *ANSI Variable* is a narrower font than the System font. *ANSI Fixed* is the ANSI Fixed Font.   Selecting *Custom Font* displays the Windows Font dialog box from which you can select a specific font family, style, and size.

Scale Fonts
(Program option)

This is used to cause the font outside the listboxes to reduce in size when the window size reduces. The font used will always be the ANSI variable font.

Double-click Transfer
(Program option)

When you double-click on a filename, the file is transferred to the opposite side. (If you double-click on a file on the local side, it is uploaded to the remote system. If you double-click on a file on the remote side, it is downloaded to the local system.)

Double-click View
(Program option)

When you double-click on a filename, the file is opened in the viewer you have defined in the Program Options (4-window version) or in the General properties (2-window version). If you double-click on a remote file, it will be transferred in the selected file transfer mode to the Windows temporary directory and opened in the viewer.

Double-click Nothing
(Program option)

When you double-click on a filename, nothing happens.

Receive Size
(Program option)

This is used to control how many bytes are read from the network in each read (recv). This option can have a value from 80 to 4096. You should see the best results with this set to 4096. Note that the actual number of bytes read in each read is determined by the TCP/IP stack and by the amount of information available.

Send Size
(Program option)

This is used to control how many bytes are written to the network in each send. This option can have a value from 80 to 4096. The optimum value to place here will depend 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.

Pro Options

You can use the Pro options to enable or disable certain features of WS_FTP Pro. These options only exist in the Pro versions of WS_FTP.

Enable drag-and-drop between window

Enable auto reget of failed transfers

Sort options

The following options only appear in the two-window version of WS_FTP Pro.

Preserve file time on transfer from remote

Prompt for overwrite of same or new files

Don't transfer older or same files during directory transfers

Note: The internal workings of the 2-window version are considerably different than earlier 4- window versions of WS_FTP. This allows a considerable number of enhancements to be possible including the retention of file dates and times on transfers from remote systems to local systems. So far we have not found a reliable way of setting the file date and time on remote systems.

Enable drag-and-drop between windows
(Pro option)

When enabled, you can transfer directories and files between systems by dragging them with the mouse from one listbox to another. See drag-and-drop feature for more information.

Enable auto reget of failed transfers
(Pro option)

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

Preserve file time on transfer from remote
(Pro option)

When enabled, 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.)

Prompt for overwrite of same or newer files
(Pro option)

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

Don't transfer older or same files
(Pro option)

When enabled, if you transfer a directory, WS_FTP Pro transfers those files for which there are not the same or newer versions (by date and time) in the destination directory.

Session Options

These options reflect the options in use for the current session and are specific for the configuration. If you want to make the options be the default for all sessions, click the **Save as Default** button. Sessions can still have unique options other than default by setting the option in this dialog box and clicking **Save**. *Note that only options that are different than the default options are saved for the session.* If you change the defaults later, you may want to re-check the session options for a configuration.

> Host Type
> Auto Update Remote Directories
> Show Transfer Dialog
> Use PASV Transfer Mode
> Sorted Listboxes
> Use Firewall
> Force Lowercase
> Convert Extensions
> File Names:
>> Send Unique
>> Receive Unique
>> Prompt for Destination
> Sounds
> Transfer Modes:
>>> ASCII
>>> BINARY
>>> L8
>>> Auto Detect
> View links

Auto Update Remote Directories
(Session option)

When this option is checked, the remote directory list will be refreshed after uploading a file, deleting a file or directory, or creating a directory. When this option is not checked, you can click the remote side **Refresh** button to update the directory.

Show Transfer Dialog
(Session option)

When the option is on, a Transfer Status dialog box appears during file transfers and displays the status of the transfer. If the option is off, the Transfer Status dialog box does not appear.

The Transfer Status dialog box shows a percent done bar if the file size is sent from the remote host on receives. You can click the **Cancel** button in the dialog box at any time to cancel the transfer. If you cancel a transfer, you will have a partial file in the transfer destination. You need to delete the partial file.

Initialize Command

Enter any commands that need to be issued to the remote host at the beginning of the session. For example, the command SITE UMASK 022 changes the UMASK used when creating files (on a UNIX system) Separate multiple commands with a semi-colon (;).

Local file mask

Enter the initial startup arguments for the listing files on the local system. For example, *.zip will show all .zip files in the startup directory. If blank, this defaults to *.* to show all files and directories.

Remote file mask

Enter the initial startup arguments for the remote LIST command.   This could be "-al" to display all files on a UNIX system or something like "*.zip".

Use PASV Transfer Mode
(Session option)

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.

Send Unique
(Session option)

This option makes sure the transmitted file names do 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
(Session option)

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

Prompt for Destination
(Session option)

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.

Note: You can also hold the CTRL key down when you click on the Transfer arrow to take the opposite action of this option.

Sounds
(Session option)

Plays the specified sound on connection success, on file transfer success, or on an error. If you have a sound card, this will be the Default Beep sound, if you have Enable System Sounds selected in the Control Panel Sound setup.

> **None** - no sounds
>
> **Beeps** - use system sounds
>
> **Wave** - play the specified WAV files (*connect.wav*, *complete.wav*, and *error.wav*)

Sorted Listboxes
(Session option)

If this box is checked, the **remote file listbox** is automatically sorted alphabetically. Otherwise the files are presented in the order the remote host transmits them.

See also Sort options in the .

Send PORT Command
(Session option)

This causes the PORT nn,nn,nn,nn,nn,nn command to be sent to the remote system each time a file is transferred.

This should always be left on.   This option is NOT saved along with the other program options.   This option is no longer displayed in any dialog boxes.

ASCII
(transfer mode)

Used for TEXT file transferring. The end of line character is different on different type of computers; using ASCII mode 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)

Used for non-TEXT file transferring. 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)

Used for VMS non-TEXT file transferring.

Setting Auto Detect 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 Pro will transfer all files in binary mode, unless the extension is in this dialog box (which stores entries in the WS_FTP.EXT file). The specified extensions will be transferred in ASCII mode.

To add a file extension to the Auto Detect list:

1. In the ASCII Mode text box, enter a file extension.
   (The extension can be up to 10 characters long and can contain periods.)
2. Click the **Add** button.
   The extension appears in the list box.

The list box lists all file extensions that WS_FTP Pro will transfer in ASCII mode when using Auto Detect.

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

Click **Exit** to exit the dialog box.

Setting Up Extension Conversions

The Convert Extensions 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 the Convert Extensions dialog box and enable the Convert Extensions option in the Session options.

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 (destination file).
3. Click the **Add** button.

   The extension conversion appears in the list box.

The list box shows all defined extension conversions.

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

Click **Exit** to exit the dialog box.

Setting Associations

The Associate 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, the file is opened in the associated application.

To set up an association:

1. In the File with Extension text box, enter the file extension to be associated with an executable program.
2. In the Associate With text box, enter the executable program to run when the **Exec** button is clicked.
   You can use the **Browse** button to browse your directories and files to locate the   executable program.
3. Click **OK**.

Use Firewall

Enables the Firewall properties defined in the session profile. Check this box and click the **Save As Default** button to make it the default value for all session profiles. You can also set this property on a per profile basis in the Firewall properties of the session profile.

Force Lowercase

Force all local to remote file transfers to use lower case versions of the local filenames.

Convert Extensions
(session option)

When this option is selected, the extension of all files that are transferred are compared with an extension list. If the file extension is found in this list, the destination file name is changed to match the desired extension.

For example:
htm=html
html=htm

See for Setting Up Extension Conversions for more information.

Remember Directories

If checked, the drop-down list for both the local and remote current directory boxes will show the directories that you visited during the session. These directories will be saved if you click the **Close** button before exiting the session.

Save Directory Names

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

Auto Detect
(transfer mode)

When this option is selected, all files will be transferred in binary mode unless the extension is found in the WS_FTP.EXT file and then the file will be transferred in ASCII mode. You can add extensions in the ASCII Extensions dialog box. Note that extensions can be up to 10 characters long and can contain periods, etc.. These are not DOS extensions!   Rather they are the ending characters of a filename. If you expect it to match on a period, you *must* put the period in.

Sample:
.LST
.TXT
.ME
README

View links

You can select to view links on the remote system (for example, UNIX symbolic links) *as directories* or *as files*.

Note: This option does not appear in the two-window version of WS_FTP Pro because links are handled automatically.

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Some code **concepts** are based on code that is copyrighted by the **Regents of the University of California** or code published in *UNIX Network Programming* by **W. Richard Stevens** or published in *Programming Windows* by **Charles Petzold** or in the Microsoft manuals/samples or code in **WATTCP** or other public sources. The rest is based on my knowledge of Windows programming and my interpretation of RFC 969 and the Windows Sockets API version 1.1.

License Information

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Latest Version

The latest version of the Limited Edition versions can be found through the Web on **http://www.ipswitch.com** or at the "home" FTP site **FTP1.IPSWITCH.COM**.

The **WS_FTP** WEB home pages are at **http://www.ipswitch.com** and **htp://www.csra.net/junodj/**

Installation

Execute INSTALL.EXE that is provided in the WS_FTP Pro distribution.

INSTALL.EXE includes an Uninstall option for cleanly removing the WS_FTP Pro application from a system.

To uninstall WS_FTP Pro, run the installation procedure (*install.exe*) and select the "Remove previous installation of WS_FTP" option.

Note: The uninstall program will delete the *wsftp.ini* file, which contains your saved session profiles.   To save this information, copy the *wsftp.ini* file to another directory. Then, after installing WS_FTP Pro on another system, you can copy the *wsftp.ini* file back to the

new WS_FTP directory and overvwrite the file created by the new installation.

Anonymous, definition

Most FTP sites support **anonymous** logins where you do not have to have an actual account on the system in order to access the system to transfer files. Normally, the userid is the word **anonymous** and the password is your full e-mail address. Usually, you can place a minus (-) sign as the first character of your e-mail address to reduce the number of messages that come from the host FTP process.

Firewall, definition

Some organizations have chosen to separate their networks from the rest of the world while still allowing certain users the ability to access resources outside of that organization's network. This access is provided through a "gateway" or "firewall" host system and is generally uni-directional. There is another kind of firewall, which is not specifically configured. A router-based firewall is one which allows connections to be established in one direction only. The router itself is invisible to the user. To work with a router-based firewall requires using the PASV Mode of FTP.

FTP, definition

FTP stands for File Transfer Protocol. This is one of the standard protocols defined for use on a TCP/IP network.

Winsock, definition

WinSock is a specification that network software providers use as a guideline for the standard application programming interface to their network software.

Upload

Transferring a file *from* your local workstation *to* a remote host or workstation.

Download

Transferring a file *to* your local workstation *from* a remote host or workstation.

Local file name

Enter a valid name for a MS_DOS file in the form of *filename.ext*. **Filename** is a maximum of eight characters consisting of the letters A-Z and digits 0-9. **Ext** is a maximum of three characters consisting of the letters A-Z and digits 0-9. Recommend you use standard extensions for files, such as .TXT, .ZIP, .DOC, .WKS, etc..

Remote file name

Enter a name for a file that is valid on the system you are connected to.   Many systems allow names that are much longer than MS_DOS allows.   Also, some systems allow characters that MS_DOS does not allow.   No error checking or filtering is performed on the name that you enter.

Remote directory name

Enter the name of a remote directory.   Naming conventions must match the remote system.   Refer to the documentation for the remote system for additional help.   On most systems, a directory must be empty in order to be able to delete it.   Not all systems allow you to make and delete directories remotely so a failure here does not indicate a failure in this program.

SITE Command

(available by clicking the right mouse button)

Enter a remote site specific command.   The client will prefix your entry with the word SITE and send you entry unedited to the remote system.   It is up to you to determine what is valid input for this command by reading the documentation for the remote system.

QUOTE Command

(available by clicking the right mouse button)

Enter any command that you want.   It will be sent unedited to the remote system.   It is up to you to determine the command syntax depending on the host you are connected to.   You should not send any commands that need to open a secondary channel.

Troubleshooting

This section lists some of the common FTP connection and file transfer problems.

Problem: You cannot connect to a remote host.

Solution: Make sure you have an active dial-up or direct Internet connection. WS_FTP is not a dialer. It calls the Winsock DLL and uses the dialer or direct connection specified there.

Problem: You installed the 32-bit or Windows 95 version of WS_FTP Pro on Windows 95, then you start WS_FTP Pro but cannot connect to another system.

Solution: Check to see if you are running the Windows 95 TCP/IP stack. If not, install the 16-bit version of WS_FTP Pro, start WS_FTP Pro and try to make the connection. (If this works, you are running a 16-bit TCP/IP stack.)

Problem: You can connect to another host, but the directory and file display is not readable.

Solution: Select another host type while connected. Try looking in the message log (click the LogWnd button) to see if the host type of the remote system is identified, then select that host type.

Problem: Connection closes after n minutes of inactivity.

Solution: The FTP server determines the connection timeout. Most FTP servers will close the connection after a few minutes of inactivity. You can change this setting only on the FTP server, not from WS_FTP Pro.

Problem: You receive one or more "Blocking call cancelled" messages and the file transfer is incomplete.

Solution: If you are using the Microsoft TCP/IP stack (which is part of the Windows 95 and NT operating systems), try setting the Maximum Transfer Unit (MTU) to 576.

Problem: You cannot open a directory on the remote host or transfer a file.

Solution: Check that you have a valid login name and password. If you do not, try selecting the Anonymous check box in the session profile; or, contact the system administrator of the FTP server to which you are trying to connect.

Problem: You cannot log on to the remote host.

Solution: Check your directory and file access permissions on the remote host. These permissions may be set by a system administrator and cannot be changed by WS_FTP Pro.

See our WS_FTP Pro FAQ on our Web site for answers to frequently asked questions. Go to http://www.ipswitch.com and select the FAQ from the WS_FTP product directory or the support page.

Downloading Software Patches and New Versions

On occasion, Ipswitch will provide a software patch to fix a bug in the currently shipping version of WS_FTP Pro. You can check our download FTP directory or our download directory on our Web site for current software patches.

To access download software on the Ipswitch FTP site:

1. In the WS_FTP Pro window, click the **Connect** button. The Session Profile dialog box appears.
2. In the Session Profile dialog box, select WS_FTP Pro Patches from the Profile Name drop-down list, and then click **OK**.

    WS_FTP Pro connects to the download directory.
3. Select the patch file for your platform type: Intel = x86; DEC Alpha = AXP; PowerPC = PPC. (For example, x86_404.exe is the patch file for the Intel platform. 404 indicates version 4.04.)
4. Transfer the patch file and place it in your WS_FTP Pro directory. Run the patch file to update the software.

To access download software on the Ipswitch Web site:

1. In your Web browser, go to: http://www.ipswitch.com
2. Click on the download directory link.
3. Under WS_FTP Pro Patch Files, click on the link for your platform type: Intel, DEC Alpha, PowerPC.
4. Select to Save the patch file in your WS_FTP Pro directory. Run the patch file to update the software.

Bonus Pack Tools

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

Finger - display information about users on a host.
Whois - search an Internet database for information about organizations and users.
Ping - verify connectivity to a remote system.
Lookup - query Internet domain servers for information about hosts and name servers.
Trace - trace and view the route an IP packet takes to an Internet host.

Using Ping

Ping is a network diagnostic tool that verifies connectivity to a particular system on the network. Ping 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, Ping asks, "Hello host, are you there?," and waits for a response. Ping is often the first TCP/IP application run on a new network host.

Ping 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 Ping terminates, it displays a brief summary of round-trip times and packet loss statistics.

Ping can also be used to track hardware and software problems. When using Ping 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.

Ping options are set by default. To change Ping options:

1. Click the **Options** button. The Ping 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 Ping will wait between sending packets.

Send Text

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

Receive Text

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

Decode Packet

Displays decode information for the packets.

No Graphic

Disables the graphic on the Ping window.

Flood Ping

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

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 Ping sessions.

2. Click the **Ping** button.

The Ping window displays the results of the ping operation.

Using 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

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.

  To show information for all users logged on to the host, enter the hostname, then click the **Finger** button.

Using 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.

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.

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:

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 woth MX.
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.
MD	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 host name, if the query is an Internet address, otherwise a pointer to other information.
HINFO	The CPU type and operating system type of the host system.
MINFO	The mailbox or mail list information.
MX	The host that acts as the mail exchanger.
TXT	Any text information entered (comments).

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.

Using 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.

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 Using Ping for descriptions of the Ping options.
3.   Click **OK** to confirm the new settings.

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.

Using Whois

Whois queries an Internet database for information about users and organizations. All users and organizations officially registered with the Internet Network Information Center (NIC) are included in the Whois database. Note that the Whois database is not a comprehensive list of Internet users. Typically only one person per Internet site is listed. That person is usually the network administrator.

The Whois database is stored on the host RS.INTERNIC.NET. Whois requires an Internet connection.

Topics:

[Entering Queries](#)

[Handles](#)

Entering Queries

Queries may be entered from the New Query dialog box. Enter the handle or the name of the user or organization.

Handles may be entered in upper or lower case, but must be entered exactly.

User names consist of the last name, followed by a comma and the first name, as in "last, first", or "Iglesias, Julio". The first name is optional.

User and Organization name queries may consist of the entire name of the user or   organization (the default) or the first few letters. To search for all names beginning with the letters entered, uncheck the Exact Match checkbox.

Once a response has been retrieved from the Whois database, additional queries may be initiated by clicking on an output line that contains a handle.

Handles

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 organization or user name. The handle is displayed in parenthesis next to the user or organization name in Whois output.

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 [WS_FTP Pro window](#) for more information.

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.

[Selecting directories and files](#)

Directory functions:

[Changing the drive](#)

[Changing directories](#)

[Creating and removing directories](#)

[Refreshing the directory display](#)

[Displaying directory and file information](#)

[Sorting directories and files](#)

File functions:

[Finding files and directories](#)

[Viewing files](#)

[Executing files](#)

[Editing files](#)

[Renaming files](#)

[Moving files](#)

[Deleting files](#)

[Changing permissions on a UNIX file](#)

Selecting Directories and Files

To select a directory or file in the current directory, click on the directory or file name in the local or remote system's listbox.

To select multiple files or directories:

- If the files or directories are contiguous in the listbox, click on the first file to be selected, and then press Shift and click on the last file to be selected.
- If the files or directories are not contiguous, click on the first file to be selected, and then press Ctrl and click on any other files you want to select.

To unselect all directories and files, click the **Refresh** button.

Changing the drive

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.

Or,

- 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 (\).

Creating and Removing Directories

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.

Not all systems allow you to make and delete directories remotely.

To remove a directory:

On the 2-window versions:

- Select the directory and click the **Delete** button. Or, you can click the **Delete** button with nothing selected and enter a directory name when prompted.

On the 4-window versions:

- Select the directory and click the **RmDir** button. Or, you can click the **RmDir** button with nothing selected and enter a directory name when prompted.

Not all systems allow you to make and delete directories remotely.

Refreshing the Directory Display

To refresh the current directory display for either the local or remote system, click the **Refresh** button. The directory and file list box will display any recent changes to the current directory.

You can also use **Refresh** to unselect any selected directories or files.

Displaying 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.

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 the General properties of the Options dialog box.

Finding 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 list box 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.

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.

Viewing Files

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 General properties of the Options dialog box. The default text viewer is the Windows Notepad.

Select **Ctrl+View** to display a prompt where you can enter the executable file name for another viewer program.

If you select the **View** button for the remote system list box, 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.

Executing Files

Select the file and then click the **Exec** button. WS_FTP Pro executes the file according to its file extension. You can associate any file extensions with an application (executable program) in the Associations properties. For example, you can specify that any files with the extension *.pdf* will be opened by the Adobe Acrobat (tm) Reader.

Select **Ctrl+Exec** to display a prompt where you can enter the executable file name for the application.

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.

Editing Files

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.

The Remote Edit uses ShellExecute option in the General properties (2-window version) lets you open the remote file without transferring it to the local system.

Renaming 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 Prompt for Destination File Names option in the Session options to copy a file from one system to a new name on the other system.

Moving Files

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.

Deleting Files

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.

Changing the permissions for UNIX files

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 **chmod** from the popup menu. The Remote File Permissions dialog box appears.

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