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Farallon Computing, Inc.

Release Notes

Timbuktu Pro for Networks
Version 1.1 for Windows
October, 1995
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The following important information does not appear in the *Timbuktu Pro for Networks User's Guide*. If you still have questions after consulting online help, the troubleshooting chapter of the manual, and these release notes, please call Farallon Technical Support at (510) 814-5000.

The release notes include the following sections:

- * Changes since version 1.0
- * Installation
- * Compatibility information
- * Windows 95 information
- * Windows NT information
- * NetWare information
- * TCP/IP information
- * Send information
- * Exchange information
- * Cross-platform information
- * Troubleshooting
- * Memory configuration issues
- * Testing Timbuktu Pro

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Changes since version 1.0

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Full Windows 95 support

Previous versions of Timbuktu Pro (Windows and Macintosh versions) can observe and control a Windows 95 system that is running version 1.1 of Timbuktu Pro for Networks (Windows Edition). For more details, see the "Windows 95 information" section below.

TCP/IP improvements

More IP vendors are supported in version 1.1 of Timbuktu Pro for Networks (Windows Edition). For more details, see the "TCP/IP information" section below.

Using Timbuktu Pro with Internet Web browsers

Timbuktu Pro addresses and service commands can be saved in URLs (Universal Resource Locator documents) and accessed from Internet browser applications such as Mosaic, Netscape, or Microsoft Internet Explorer. Before your browser can open a Timbuktu Pro connection:

- * You must have the Timbuktu Pro for Windows installed on your computer.
- * Your Web browser must be configured to launch TB2GUEST.EXE when it encounters a Timbuktu URL file . To learn how to do this, see "Configuring Timbuktu Pro as a helper/viewer application in a WWW browser" below.

When these conditions are satisfied, opening the Timbuktu URL file will establish a Timbuktu Pro connection to the address contained in the URL using the service (Control, Observe, Send, Exchange) specified in the URL.

Note: If you have a Timbuktu URL file on your computer, you can double-click it to open a Timbuktu Pro session. You can also drag the URL file onto a TB2 shortcut icon to initiate the service, but you can't drag a shortcut URL file to Timbuktu Pro.

Error Message

When you attempt to access a Timbuktu Pro URL as described above, the following message may be displayed:

```
"Could not connect to the remote computer because the Timbuktu URL file is not properly formatted."
```

To solve this problem, check the URL for an error in punctuation or IP address formatting, as explained in the following section.

Creating a Timbuktu Pro URL

Timbuktu Pro's URL scheme is called "tb2" and uses one of the following formats:

```
tb2://<ip address>/<service>   or   tb2://<ip name>/<service>   where
```

<ip address> = a valid TCP/IP address;
<ip name> = an IP name that is recognized by a Domain Name Server; and
<service>= SEND or EXCHANGE or CONTROL or OBSERVE

Save this line as a text file with the extension ".tbt" and the URL is complete. It can then be referenced, along with other URLs, from HTML documents or other browser-friendly formats that support clickable text or graphic items (hyperlink buttons). Remember that the person using the browser will first need to configure the Web browser to recognize the ".tbt" extension, as explained above.

Note: Timbuktu URL capability can be switched off by editing the TB2.INI file. In the [TCP_IP] section, add the following line:

```
"TB2URLFile=0"
```

Configuring Timbuktu Pro as a helper/viewer application in a WWW browser

Most World Wide Web browsers can read HTML-formatted pages as well as GIF and JPEG graphic file formats. They can also interpret many other file formats with the help of external helper, or viewer, applications. To accommodate the file formats that require such applications, WWW browsers keep a mapping of file formats to helper applications.

MIME (Multipurpose Internet Mail Extensions) is an Internet standard for dealing with differing file formats. To be sent and interpreted via a browser, a file is assigned a MIME type. When your WWW browser retrieves a file from a server, the server indicates the MIME type of the file via its file extension. Using the file's extension, the browser can associate the file with the correct application to launch when the file is downloaded to your disk.

See your browser's documentation to learn how to set up TB2GUEST.EXE as a helper (or viewer) application. Configure the mapping of the Timbuktu Pro MIME type, with the .tbt MIME extension.

Some browsers take care of new MIME types by prompting the user to configure a viewer when an unknown file type is encountered. The browser will ask for the following four MIME characteristics. Here are the appropriate responses.

```
* File type description: Timbuktu Pro  
* Associated File extension: .tbt  
* Content Type: octet-stream or octet string  
* Helper/Viewer application: TB2GUEST.EXE
```

Configuring a server to serve Timbuktu Pro URLs

For a WWW server to send a MIME type such as Timbuktu Pro URL documents, the server may have to be reconfigured. The Timbuktu Pro extension must be added as an Application with the octet stream designation. Refer to your server's documentation for specifics.

For example, to configure a Netscape SunOS server, edit the mime.types file to add the Timbuktu Pro extension line:

```
type=application/octet-stream exts=tbt
```

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INSTALLATION

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Please review the following topics before installing Timbuktu Pro.

Product Code

It is no longer necessary to type in a Product Code when installing Timbuktu Pro, as the Installer inserts the code automatically.

Lotus SmartCenter

You'll need to close Lotus SmartCenter before installing Timbuktu Pro.

Before installing the ShivaPPP Dial-In client

If you are installing Timbuktu Pro on a Windows 95 system, then you should not install the ShivaPPP Dial-In client. Windows 95 has its own client that is fully supported by Timbuktu Pro.

There are several issues regarding the interaction of the ShivaPPP Dial-In client with Timbuktu Pro. The impact and resolution of these issues will depend on your operating system environment.

* Novell NetWare and ShivaPPP

If you are using ShivaPPP with the Netware VLM, the VLM must be version 1.2 or later.

* Windows 3.1 and ShivaPPP

If you are installing the ShivaPPP Dial-In client as an ODI driver in Windows 3.1, you must have LSL.COM loaded and running in your system before you run the Shiva installation program. In the Protocol Configuration dialog box, do not enable NetBEUI/LLC.

If you already have a batch file for a LAN card, edit the batch file to load the DIALODI.COM driver in the \SHIVA directory, or wherever you loaded the Shiva files, instead of the driver for your LAN card. Here is a sample batch file:

```
c:\net\nwclient\lsl.com
c:\shiva\dialodi.exe
c:\net\bin\tcpip.exe
c:\nwclient\ipxodi
c:\nwclient\vlm
set name=Catbert
```

If you already have a NET.CFG file for a LAN card, edit the NET.CFG file to include the necessary protocols in the DIALODI section. Reboot your system. Here is a sample NET.CFG section:

```
Link Driver DIALODI
Frame Ethernet_II
Frame Ethernet_SNAP
Frame Ethernet_802.3
```

Protocol IP 800 Ethernet_II
Protocol ARP 806 Ethernet_II
Protocol RARP 8035 Ethernet_II

Note: ShivaPPP is not a stack. The remote dial-in software that ships with Timbuktu Pro does not contain TCP/IP networking software. If you don't have compatible TCP/IP software, refer to the "TCP/IP information" section later in this document before purchasing a TCP/IP stack.

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Compatibility Information
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Corel applications

If you are controlling a computer that is running a Corel application, you may encounter an assortment of color, drawing, text, and fill problems.

S3 chip set

If you are controlling a computer that is using a video card with an S3 chip set, you may encounter an assortment of color, drawing, text, and fill problems.

Screen sharing and Lotus 1-2-3 release 5.0

If you are controlling a computer that is running Lotus 1-2-3 release 5.0 under Windows 95, you may notice that the background color is not displayed properly in the Control window. This behavior will not interfere with the Control session.

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Windows 95 information
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Windows 95's built-in Dial-In client is supported by Timbuktu Pro via two menu items under the Connections menu:

- * Create Dial-Up Connection launches the Make New Connection wizard and walks you through the steps required to build a connection document.
- * Dial-Up Connection presents you with a list of the existing connection documents that currently occupy the Dial-Up Networking folder.

A Timbuktu Pro connection status icon is visible in the Windows 95 toolbar status area in the lower-right corner of your desktop. Double-clicking the Timbuktu Pro status icon will bring Timbuktu Pro to the foreground.

The File Manager extension is not installed on Windows 95 systems.

Windows 95 long file names are not supported in this release. The short 8.3 file names are used in the Send and Exchange services.

If you want to send or exchange files that are on the desktop, use the following path:

<windows drive>:\<windows directory>\desktop

If you want to send or exchange files that are in the briefcase, use the following path:

```
<windows drive>:\<windows directory>\desktop\mybrie~1
```

If you install Timbuktu Pro on a Windows 95 system that is not running TCP/IP, a message box, "Host error - couldn't turn on IP guest access", may be displayed when Timbuktu Pro starts up. You will see a TCP/IP tab in the New Connection window, but you won't be able to connect to any hosts over TCP/IP, nor will any remote users be able to connect to your computer over TCP/IP. Unfortunately, you can't switch off TCP/IP in the User Access Privileges dialog box. The following paragraph explains how to disable the TCP/IP tab and get rid of the message box.

To switch off TCP/IP support:

1. Open the TB2.INI file with a text editor.
2. Edit the ProtocolSupport line so that it reads:

```
ProtocolSupport=3
```

3. Save and close the TB2.INI file.

The next time you launch Timbuktu Pro you won't see the IP tab. If you are a network administrator and are customizing the TB2.INI file before your users install Timbuktu Pro, you will probably want to modify this option if your organization isn't using TCP/IP. Otherwise, you'll need to get TCP/IP running correctly if you need TCP/IP access.

```
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```

Windows NT information

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```

Two Timbuktu Pro services--Control and Observe--do not work in both directions when running on a Windows NT system. This means that a remote user cannot control or observe the desktop of a Windows NT computer. However, a Windows 3.1, Windows for Workgroups 3.11, Windows 95, or Macintosh computer can be controlled or observed from a Windows NT computer.

The Send and Exchange services work in both directions on a Windows NT system.

The File Manager extension is not installed on a Windows NT system.

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```

NetWare information

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```

NetWare compatibility

Timbuktu Pro has been tested with, and fully supports, NetWare 3.x and NetWare 4.x clients for Windows. It does not support the Microsoft NWLINK IPX protocol included with Windows for Workgroups. Use Novell's IPXODI for NetWare support when running Windows 3.1 or Windows for Workgroups.

Note: Windows will attempt to use NWLINK even if you have Novell's IPXODI loaded. You'll need

to remove the following lines if they are present in the Network Drivers section of your Network Setup:

IPX/SPX Compatible Transport
IPX/SPX Compatible Transport with NetBIOS

The Microsoft IPX client in Windows 95 is supported by Timbuktu Pro.

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TCP/IP information

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TCP/IP stack options

Farallon maintains three categories of TCP/IP stacks: Certified, Verified, and Unsupported.

- * Certified stacks have been subjected to significant stress testing by Farallon's Quality Assurance department and have been found to function correctly with Timbuktu Pro for Networks. Timbuktu Pro fully supports the following TCP/IP stacks:
 - * Microsoft MS/TCP 3.11 and 3.11a
 - * Microsoft MS/TCP for Windows 95
 - * NetManage Chameleon V4.01 and V4.5
 - * Novell LAN Workplace V4.2 and V5.0

- * Verified stacks have been tested to a lesser degree than Certified stacks. Most, if not all, of the Timbuktu Pro features operate correctly with them. A Verified stack will typically work with Timbuktu Pro without difficulty. Review this document for specific comments on these stacks. Please contact Farallon immediately if you detect a problem with one of these IP stacks.
 - * Beame & Whiteside V3.2.0.1.
 - * Distinct V3.32 - Requires a new WINSOCK.DLL dated: 7/21/95, size: 33110 bytes. Contact Distinct technical support.
 - * Frontier Super TCP Pro 1.1
 - * InterCon TCP/Connect II for Windows V4.00 R3 - Requires Winsock patch. Contact InterCon technical support.
 - * Microsoft MS/TCP for Windows NT
 - * Network TeleSystems TCP Pro V1.03/2.0
 - * Spry Internet Office -- Requires a new WINSOCK.DLL. Contact Spry technical support.
 - * Trumpet V2.0 -- When controlling a Macintosh computer, the screen redraws very slowly and the computer may hang.
 - * TGV MultiNet for Windows V1.1
 - * Wollongong Pathway Runtime V4.0 with patches.
 - * WRQ (Walker, Richer, & Quinn) Reflection V4.5 and V5.01
 - * ftp Software OnNet V1.0, PC/TCP V2.3, and PC/TCP V3.0 -- You will need to take the following steps:
 1. Find the directory in which PCTCP was installed.
 2. Open the PCTCP.INI document with a text editor.
 3. Make the following changes in the [pctcp kernel] section:

```
tcp-connections=10
udp-connections=10
window=4096
```
 4. Restart your computer. Timbuktu Pro should now work with PCTCP.

- * Unsupported stacks do not work with Timbuktu Pro due to compatibility problems with their WinSock libraries:
 - * Sunsoft PC-NFS 5.1 -- Cannot be controlled or observed.
 - * NCD Marathon -- Screen-sharing as a host does not work.
 - * Microsoft LanMan for DOS 2.2 TCP/IP -- A local computer cannot copy files to the remote computer using the Exchange service. All other services function properly.

For information on the "Host error - couldn't turn on IP guest access" message, see the "Windows 95 information" section of this release note.

Loss of IP address

If you use the Windows 95 Dial-Up Networking client to connect to a PPP server, you won't be able to determine your IP address by viewing the User Access Privileges dialog box in Timbuktu Pro, which means that no one can connect to your computer across the dial-up link.

To learn your IP address in this situation:

1. Control a PC on the remote network.
2. Open Timbuktu Pro on the remote computer.
3. Choose Activity Log from the Connections menu on the remote computer.
4. Scroll to the last line of the log and scroll to the right side of that line. The log reports your IP address.
5. Copy the IP address of your computer. You can then share this with users who need to connect to your PC.

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Send information

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To receive FlashNotes, Timbuktu Pro needs to be running

Unlike sending electronic mail, sending FlashNotes requires the sender and receiver to be running Timbuktu Pro at the same time. If you are unable to reply to a FlashNote from another Timbuktu Pro user, contact the other user to see if he or she has switched off Timbuktu Pro.

Note: Macintosh users need not be running Timbuktu Pro to receive FlashNotes.

Send and firewalls

You won't be able to reply to a user who has sent you a FlashNote from inside a firewall. For more information, see the "TCP/IP - Some types of Timbuktu Pro connections via TCP/IP appear to be blocked" section under Troubleshooting, later in this document.

Send and shutting down Timbuktu Pro

If you shut down Timbuktu Pro or disconnect a remote user when that user is sending you a FlashNote or file, unpredictable results may occur on both computers.

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Exchange information
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Simultaneous Exchange sessions are not supported

You will need to take turns using the Exchange command if somebody else is already exchanging files with the computer you have selected. The same limitation applies to the Control or Observe commands. If you attempt to open another session for these services, you will get an error message that reads "The service you requested is busy and cannot accept any more connections." You'll need to wait until the prior connection has ended.

Close button

The Close button is always enabled, even during copies. Even if you lose your network connection, you should be able to close the Exchange window. However, there may be a few cases where disconnecting the network could create conditions that would lead to a system crash on your PC--if, for example, you started a copy, unplugged the cable, then selected a remote folder and tried to delete it.

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Cross-platform information
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Accessing Macintosh address books

You can translate a Timbuktu Pro 2.0 for Macintosh address book into a Personal address book in Timbuktu Pro for Windows in two ways. You can copy the address book directly from the Macintosh and rename it Personal.Tab, or you can export the Macintosh address book, copy it to your PC, and then import it into your existing Personal address book.

Translating without exporting and importing

Keep in mind the following issues if you decide to copy the Macintosh address book directly to your PC using the Send or Exchange service:

- * This method of translating a Macintosh address book does not preserve your original Personal address book on the PC. Therefore, you may want to rename it, for example, to "Personal.bak", before you begin this procedure. If you want to add new addresses to your existing Personal address book, use the second procedure in this section.
- * If the Macintosh address book contains AppleTalk addresses, they will also appear in your Timbuktu Pro for Windows Personal address book; however, you won't be able to connect to any of the AppleTalk addresses.

1. Use Send or Exchange to copy the Macintosh address book to your PC. Timbuktu Pro changes the address book file's extension to ".tab".

2. Quit Timbuktu Pro for Windows.
3. On your PC rename the translated file "Personal.tab". If you have an existing Personal.tab file, Windows won't let you replace it. In that case, rename or delete the existing file.
4. Reopen Timbuktu Pro for Windows. The translated address book appears in the Personal tab.

Translating by exporting and importing the Macintosh address book

Use this procedure if you want to add the addresses from the Macintosh to your existing Personal address book.

1. On the Macintosh use the Export Address Book command in the File menu to convert the desired address book to a text file.
2. On your PC choose Preferences from Timbuktu Pro's Setup menu.
3. Select Translate Between Macintosh and PC Text File Formats.
4. Click OK to close the Preferences window.
5. Using the Exchange privilege, connect to the Macintosh that has the desired address book.
6. Copy the address book to your PC. Timbuktu Pro makes the necessary changes to the file.
7. Choose Import Addresses from the File menu to add the new addresses to your existing Personal address book.

Macintosh software requirements

Make sure the Macintosh user is running Timbuktu Pro for Macintosh 1.0.5 or later and MacTCP 2.0.6 or later.

Displaying FlashNotes on a Macintosh

FlashNotes, created with the Send command, are not automatically displayed on Macintosh computers running Timbuktu Pro 1.x for Macintosh. You can still double-click the Timbuktu Pro Note file--located in the drop folder--to open it in SimpleText.

Special characters

While using remote control between Timbuktu Pro for Macintosh and Timbuktu Pro for Networks (Windows), some special characters (usually referred to as upper-128 ASCII characters) may not map correctly between the two systems. Examples of these special characters are ones that require the use of the Ctrl or Alt keys. This special character limitation also applies to file names and passwords.

To ensure cross-platform compatibility, use only the characters that are visible on your computer's keyboard (with or without the Shift key). If you want to compare cross-platform character mapping

in more detail, you can check the character resources on each platform by using the Windows Character Map accessory program and the Macintosh Key Caps program.

Identical file names

Some Macintosh directory names and file names map to the same names on the PC. When this happens, you get the message:

Replace items with the same names with the selected items?

If you click Yes, the files and directories on the PC that have the same names as the ones being copied from the Macintosh will be lost.

Color mismatch

When a PC user is controlling or observing a Macintosh computer, the colors in the Control or Observe window of the PC may not exactly match the colors on the Macintosh.

If the Macintosh Monitors control panel is set to millions of colors and the PC that is controlling or observing it is using standard VGA, performance may be unacceptable. Ask the remote Macintosh user to switch to 256 or even 16 colors.

Ram Doubler

A Timbuktu Pro for Macintosh user cannot connect to a Timbuktu Pro for Windows computer that is using Ram Doubler.

Bypassing QuickDraw - FrameMaker

When the Macintosh is running FrameMaker 4.0, the text in the FrameMaker menus may not be visible to the PC controller or observer. Make sure the Macintosh user has switched on Support Bypassing QuickDraw in the Preferences dialog box.

Invisible buttons

Buttons in a Macintosh application may sometimes not be visible to the PC controller or observer, but they are still functional.

Switching to a different Macintosh monitor

While controlling a remote Macintosh, you can switch the view in the Control window to any additional monitors by pressing

Ctrl+Alt+Shift+Left Arrow

or

Ctrl+Alt+Shift+Right Arrow

Copying font or application files from a Macintosh

Macintosh files that include resource forks--font and application files--cannot be successfully copied to a Windows computer using the Exchange or Send services. The resource fork data is copied to the PC but not written to disk. When the file is copied from a Macintosh, the Macintosh user will see the progress indicator (thermometer bar) complete its journey from left to right because Timbuktu Pro is sending the entire file to the PC. But then the PC discards all of the resource fork data.

Remote computer behaves unexpectedly after an accidental disconnect

If you are controlling another computer and the connection is broken abnormally--for example, because of a software or hardware problem--one of the remote computer's mouse buttons may be left in the down state. This is because you (or some previous controller) were pressing that mouse button at the time the connection was interrupted. This problem has different symptoms depending on the application that is running on the remote computer at the time. The solution is always the same: after you reconnect, click the left mouse button and then the right mouse button to regain control.

If someone has just been controlling your computer and you notice unusual behavior on it, you may be experiencing the same problem on the other end. Click both mouse buttons.

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Troubleshooting

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Timbuktu Pro File Manager extension - Norton Desktop

If you have the Timbuktu Pro File Manager extension installed and you are experiencing problems starting Norton Desktop, try one of the following workarounds:

- * Put the Timbuktu directory (or whichever directory contains your Timbuktu Pro application) in your DOS path and restart your PC.
- * If you are using Norton Desktop for Windows 3.0, you can open the Options applet, go to the defaults/advanced section, and switch off file manager extensions under Norton Desktop. Switching this option off and on will force the Timbuktu File Manager extension back to the Norton Desktop toolbar.
- * Temporarily switch off the Timbuktu Pro File Manager extension by editing WINFILE.INI and inserting a semicolon at the beginning of the Timbuktu= line, as shown below:

```
;Timbuktu=c:\timbuktu\note.dll.
```

Now restart Windows.

Starting Timbuktu Pro - Lotus Notes

Timbuktu Pro should be started before Lotus Notes.

NetWare - No NetWare connection tab

If the NetWare connection tab does not appear in your Timbuktu Pro window, make sure that NetWare is working properly outside of Timbuktu Pro. Run the Windows setup program and verify that the NetWare 3.x or 4.x client shell is installed. Once you have established this, try logging on to a Novell file server from inside Windows. If you can't do that, the problem is more likely to be with your NetWare installation rather than with Timbuktu Pro.

Note: There is no NetBEUI connection tab in Timbuktu Pro. Although NetBEUI is the default network you get when you install Windows for Workgroups, Timbuktu Pro does not currently support NetBEUI.

NetWare - Cannot see remote address in the NetWare tab

If you can't find a computer name in the NetWare connection tab, make sure that

- * The remote user has Timbuktu Pro running.
- * The remote user has the Windows version of NetWare.
- * The remote user has selected NetWare in the User Access Privileges dialog box.

If both of these conditions are met and you still can't see the remote computer in the NetWare tab, the network may be too busy. Use the wildcard look-up procedure to limit the number of responding computers. Type the first few characters of the remote computer's name in the Search box, then click the Search button. The lookup is not case sensitive. If you still do not see the computer name, hold down the Shift key and click the Search button again. This forces a more aggressive search. If you are still unable to display the computer name, contact Farallon Technical Support.

TCP/IP - Attempting to connect to your own computer over TCP/IP

Please do not attempt to control your own computer over TCP/IP; it may crash your system.

TCP/IP - No TCP/IP connection tab

If the TCP/IP connection tab does not appear in your Timbuktu Pro window, first of all, make sure that your TCP/IP software is compatible with Timbuktu Pro, as explained in the "TCP/IP information" section above.

If you are using a Certified or Verified stack, make sure that your IP network software is working properly outside of Timbuktu Pro. Try other WinSock IP applications, such as Ping, Netscape, Telnet, or FTP. If these aren't working either, the problem is more likely to be with your IP stack rather than with Timbuktu Pro.

If you are using a TCP/IP stack that has not been either Certified or Verified, you must still be able to answer Yes to the following questions:

- * Does your TCP/IP stack have a WINSOCK.DLL? The documentation should state this clearly.
- * Do you have the most recent update of the TCP/IP stack? To find out, contact the vendor of the stack.
- * Is there only one WINSOCK.DLL in your path? If you find any others, rename them or remove them from your path.

- * Does the WINSOCK.DLL in your path--normally in the Windows or WFW directory--match the one provided by your stack? To find out, see if the dates and sizes of the two WINSOCK.DLL's are identical. If you answered "yes" to all of these questions and Timbuktu Pro still does not work, contact Farallon Technical Support or visit the Farallon Web server (www.farallon.com) to find the latest list of supported IP stacks.

TCP/IP - <Unknown> displayed in Add Address dialog box

You have entered an address in the TCP/IP tab and clicked the button. When the Add Address dialog box appears, it displays "<unknown>" in the Description and Computer Name fields. Timbuktu Pro takes the IP address you have specified and tries to contact a computer at that address to verify that it is running Timbuktu Pro. "<unknown>" is displayed in the dialog box if

- * You entered the wrong address.
- * The other computer isn't running Timbuktu Pro. In this case, you can still add the address and use it to connect when the other user has switched on Timbuktu Pro.
- * No computer can be found at the specified address. In this case, you'll need to correct the address and re-enter it.

TCP/IP - Error Message: Computer Name doesn't match

If you connect to an address saved in your personal address book and learn that the Computer Name doesn't match, you may have saved a dynamic IP address that has since changed.

Another possibility is that the name of the remote computer may have been changed.

TCP/IP - Some types of Timbuktu Pro connections via TCP/IP appear to be blocked

Situation: For security reasons, network managers on TCP/IP networks usually want to restrict external access to their networks. Most of the time they will only open TCP/UDP ports for Telnet, ftp, and some other common services access. To do that, they configure their IP routers--sometimes referred to as gateways--to filter out access to different ports. These filters are called firewalls and can be configured to prevent Timbuktu Pro connections. In order for Timbuktu Pro to access these kind of networks, the network manager must open the TCP ports which Timbuktu Pro requires.

Background: Timbuktu uses UDP port 407 for connection handshaking and then switches to other TCP ports for each kind of service:

Service	TCP Port
Control	1417
Observe	1418
Send	1419
Exchange	1420

These ports are used during access from registered users. Any or all of these ports can be protected by a firewall to keep out unauthorized users. Some network managers firewall all ports but UDP 407 and TCP 1419, which allows anyone on the Internet to send a user a file via

Timbuktu Pro. We provide the ability for the network administrator to reconfigure the ports that Timbuktu Pro uses by using Timbuktu Pro Administrator's Toolkit (sold separately) to set up a particular site, with the exception of the connection port, UDP 407, which has been allocated to Timbuktu Pro by the Internet Society.

Timbuktu Pro also supports attended access, in which a remote user admits a temporary guest on a one-time basis without requiring a password. Timbuktu Pro normally uses a dynamic port assignment for this type of connection. Temporary guest access can be allowed through some firewalls that don't allow registered user access.

The registered port numbers listed above are used only by computers receiving a connection. The users who initiate connections use dynamically-assigned port numbers. The number of the TCP port to be used for the Timbuktu Pro connection is negotiated by the two computers involved. Such ports have numbers above the 256 reserved ports and are usually above port 1023. Most Internet sites follow the convention of allowing ports greater than 1023 to be assigned to TCP/IP applications dynamically. If these ports are firewalled, Timbuktu Pro will not be able to complete a TCP/IP connection.

Solution: The network manager will need to reconfigure the firewall permissions to permit dynamic TCP port assignments. Refer to the firewall or router documentation for details. Using the Timbuktu Pro Administrator's Toolkit, you can designate which TCP/IP ports are to be used for Timbuktu Pro services. For information about the Timbuktu Pro Administrator's Toolkit, contact Farallon Computing.

ShivaPPP - File transfer problems

If you are using the ShivaPPP client on Windows for Workgroups with Microsoft's MS/TCP-32 running over ODI, and you are sending files to, or exchanging files with, a Macintosh computer, the file transfer may hang. You'll need to restart your PC. The problem is more common with 28,800 bps modems but is also known to occur with 14,400 bps modems. If the problem persists, switch to the ShivaPPP NDIS driver.

Send - Can't reply to FlashNote

Unlike sending electronic mail, sending FlashNotes requires the sender and receiver to be running Timbuktu Pro at the same time. If you are unable to reply to a FlashNote from another Timbuktu Pro user, contact the other user to see if he or she has switched off Timbuktu Pro.

Send - Send sometimes fails to transfer files within large directory enclosures

If you include a directory as an enclosure in a FlashNote and if that directory goes many levels deep, Timbuktu Pro may not be able to transfer some of files in the lower levels of the directory. For example, you include the c:\sales directory in a FlashNote, and within that directory you can go as deep as

c:\sales\southern\quarter4\phase2\hardware\copper\judy\data\final\sales.doc

This path is less than the maximum 64-character path that DOS allows, but when Timbuktu Pro adds the drop directory name, sender directory name, and date/time directory name--

c:\files\jane\10-31-12.32i

--the path name becomes longer than DOS permits. The files in the lower reaches of the sales

directory cannot be sent.

You can avoid this by transferring individual directories from inside the sales directory. For example, instead of including c:\sales, include c:\sales\southern\quarter1 and c:\sales\southern\quarter2, etc. This shortens the final directory depth on the recipient's drop directory.

Alternatively, if you have access, you can use Exchange instead of Send, and copy the c:\sales directory to the root-level of the recipient's disk drive. This avoids adding the extra path of the drop directory.

Remote control - Fonts are not displayed properly

Timbuktu Pro speeds up performance during control and observe sessions by sending minimal font information. This works properly as long as the controller or observer has the same fonts installed as those used on the remote computer. If that is not the case, the text may be displayed improperly. To work around this problem, the controller or observer can force Timbuktu Pro to send text as bitmaps:

1. Close the Control or Observe window in which the text was not displaying properly.
2. Using Notepad, Write, or any text editor, open the TB2.INI file, which is in your Timbuktu directory. Do not convert the file; it should remain in text-only format.
3. Scroll to the line that reads BMPAlways=0 and change it to BMPAlways=1.
4. Save and close the TB2.INI file.
5. Reconnect to the remote computer as a controller or observer.

Remote control - Control or Observe window sometimes freezes

If you are controlling or observing a remote computer and the other computer appears to freeze up, check the video driver on the remote computer. Ask the remote user to switch his or her video mode to standard VGA or to one of the standard Super VGA drivers that ship with Windows 3.11. The problem may also occur if you are using a non-standard video driver.

Remote control - Freehand drawing doesn't work

Freehand drawing does not work reliably when a person using Timbuktu Pro 1.0 for Macintosh is controlling certain graphics programs, such as Windows PaintBrush.

Remote control - Screen freezes following disconnect

If a person controlling or observing your computer via TCP/IP disconnects while your screen is being updated, an hourglass appears on your desktop for several seconds. Your screen will recover after a short period, but if you'd like it to recover immediately, press Ctrl+Break.

Remote control - Some colors not visible in Control or Observe window

If incorrect colors appear during a remote control session between two computers, check for differing color capabilities. For example, if the remote computer you are observing has 256 colors

with a text highlight of light blue and your computer has only 16 colors, the light blue may be mapped to white in your Observe window. You won't be able to see any highlighted text. Ask the other user to switch to the same color depth you are using.

Remote control - Screen savers

If you expect to have remote users controlling or observing your computer, it's best to avoid using a screen saver. This will minimize the network traffic created when the screen saver images are transferred by Timbuktu Pro. If you do need a screen saver

- * For Windows 3.x, try the Blank Screen option in the Desktop control panel's Screen Saver section.
- * For Windows 95, try the Blank Screen option in the Display control panel's Screen Saver tab.

Remote control - Running DOS sessions

While controlling another PC, you can run a DOS session in a window, but if you switch the DOS session to full-screen mode, you won't be able to see the text you are typing. If you find yourself in a full-screen DOS session while you are controlling, you can redisplay the DOS session in a window by pressing Alt+Enter or by clicking any icon in the Control window except the DOS icon. Hint: you can usually assume you have connected to a computer in a full-screen DOS session if the remote computer displays partially drawn windows or text segments and does not respond to your mouse movements or keystrokes.

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Memory configuration issues
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The following symptoms may indicate that you are experiencing a low DOS memory problem:

- * Timbuktu Pro won't run.
- * You can't run other Windows applications when Timbuktu Pro is running,
- * After a control connection is interrupted, nobody can connect to your PC or to the one you were connected to.
- * You can't maximize the Control window
- * Black grid lines appear on file selection windows for the Send and Exchange services.
- * Buttons are not completely drawn.
- * Enclosures are not added to FlashNotes.
- * Error messages are only partially displayed.

Because Windows sits on top of DOS, Windows applications and the Windows operating system need a certain amount of low memory, that is, memory below 1 MB. This problem usually appears on portable computers that use PCMCIA socket service drivers; however, desktop systems can also exhibit the problem. Try one or more of the following suggestions to free up memory.

- * Review the list of DOS drivers and TSRs you are using and stop loading the less important

ones.

- * Maximize low DOS memory by using a Memory Manager such as EMM386 or QEMM to load DOS drivers and DOS TSRs into upper memory. If you are using DOS 6.x, you can also run MemMaker. Refer to your memory manager documentation for specific instructions.
- * If you are running Windows for Workgroups with a third-party video driver and you do not need advanced video functionality, try using the standard Windows VGA or Super VGA driver. Run the Windows setup program to switch video drivers.
- * If you are running TCP/IP only under Windows for Workgroups, consider using the Microsoft VxD-based TCP/IP stack with NDIS 3.x drivers. This will greatly reduce your low memory usage.
- * Limit the number of Windows applications you have open at one time.
- * Lower Timbuktu Pro's memory requirements by switching off support for protocols you do not need. This requires a change in the TB2.INI file, as explained in the following section.

You may also experience difficulties if your computer or the computer you are controlling is low on Windows memory. You can free Windows memory by closing unneeded applications. The following problems may indicate low Windows memory:

- * Your mouse pointer isn't moving as smoothly as usual.
- * Your screen partially redraws and then stops for 100 seconds.
- * A Control window closes if you maximize it.
- * A message tells you that IPX has left sockets open. If you get this message, close your applications and reboot.

Switching off a network protocol

To switch off NetWare support:

1. Open the TB2.INI file with a text editor.
2. Edit the ProtocolSupport line so that it reads:

```
ProtocolSupport=2
```

3. Save and close the TB2.INI file.

To switch off TCP/IP support:

1. Open the TB2.INI file with a text editor.
2. Edit the ProtocolSupport line so that it reads:

```
ProtocolSupport=3
```

3. Save and close the TB2.INI file.

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Testing Timbuktu Pro

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The default shared address book contains the following IP addresses of computers running Timbuktu Pro at Farallon Computing, Inc.:

tb2prowin.farallon.com (a PC running the Windows version--allows Observe only)

timbuktu.farallon.com (a Macintosh running the Macintosh version)

If you have access to the Internet, you can use these IP addresses to connect to Farallon's test workstations to confirm that Timbuktu Pro for Networks, Version 1.1 for Windows, is working correctly.