



LinkMonkey – TCP ToolSuite v1.0

User Manual





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1 Product Overview

The LinkMonkey TCP ToolSuite allows a user to perform various data and stream operations over a TCP connection. LinkMonkey, itself, is a PC software application that utilizes the standard PC Ethernet network card to provide services to the user in either a client or server mode. Once LinkMonkey is activated, it can monitor incoming data over the Ethernet in hexadecimal or ASCII format. Additionally, data can be sent to a remote device through direct user entry or by sending a file or data stream.

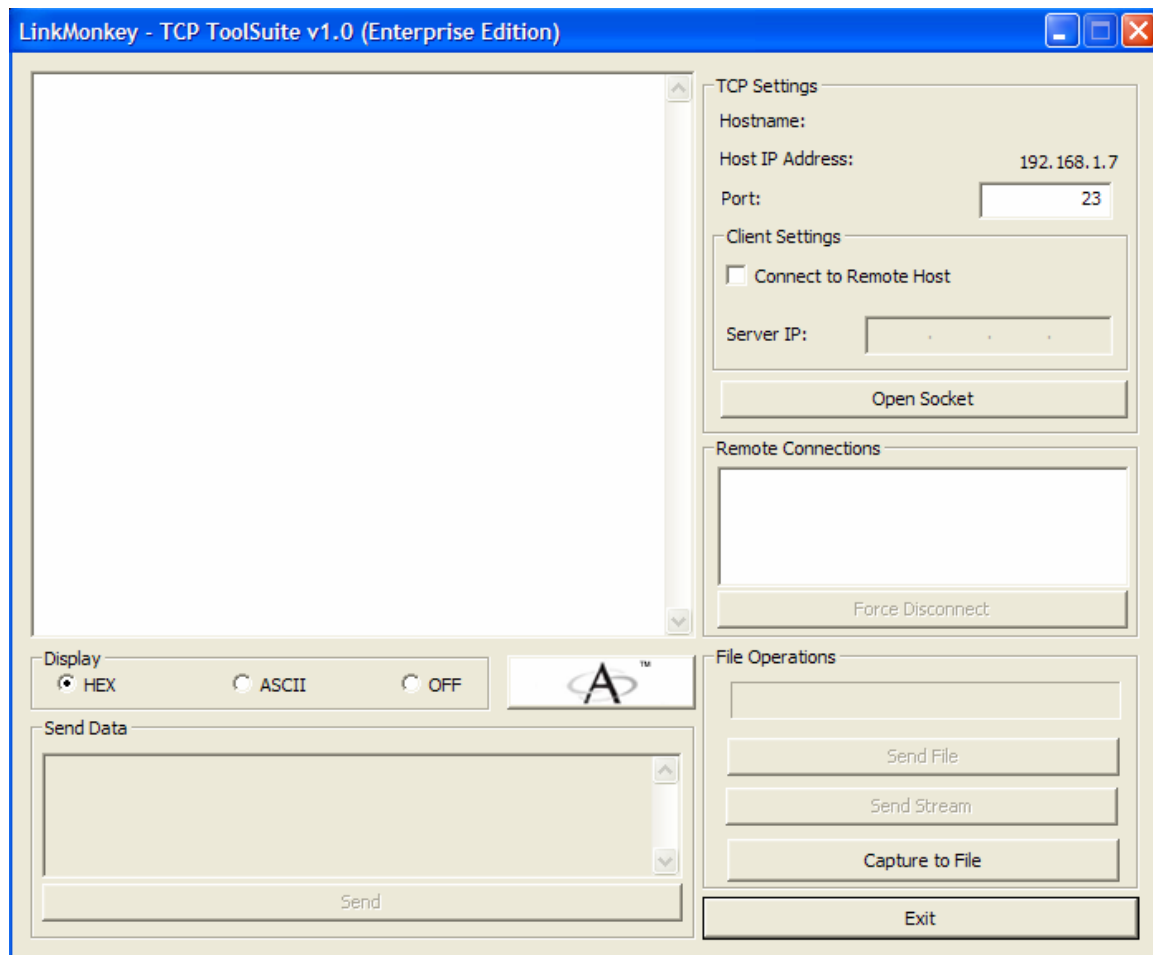


Figure 1 : LinkMonkey user interface



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Detailed information on how to utilize the various controls in this interface is provided in section 3 of this manual. To activate the default settings, the "Open Socket" button can be pressed immediately after launching the application (as shown in Figure 2). This will cause the application to listen on port 23 of the Ethernet socket as a server entity. As a server, LinkMonkey allows up to 100 simultaneous connections with client devices.

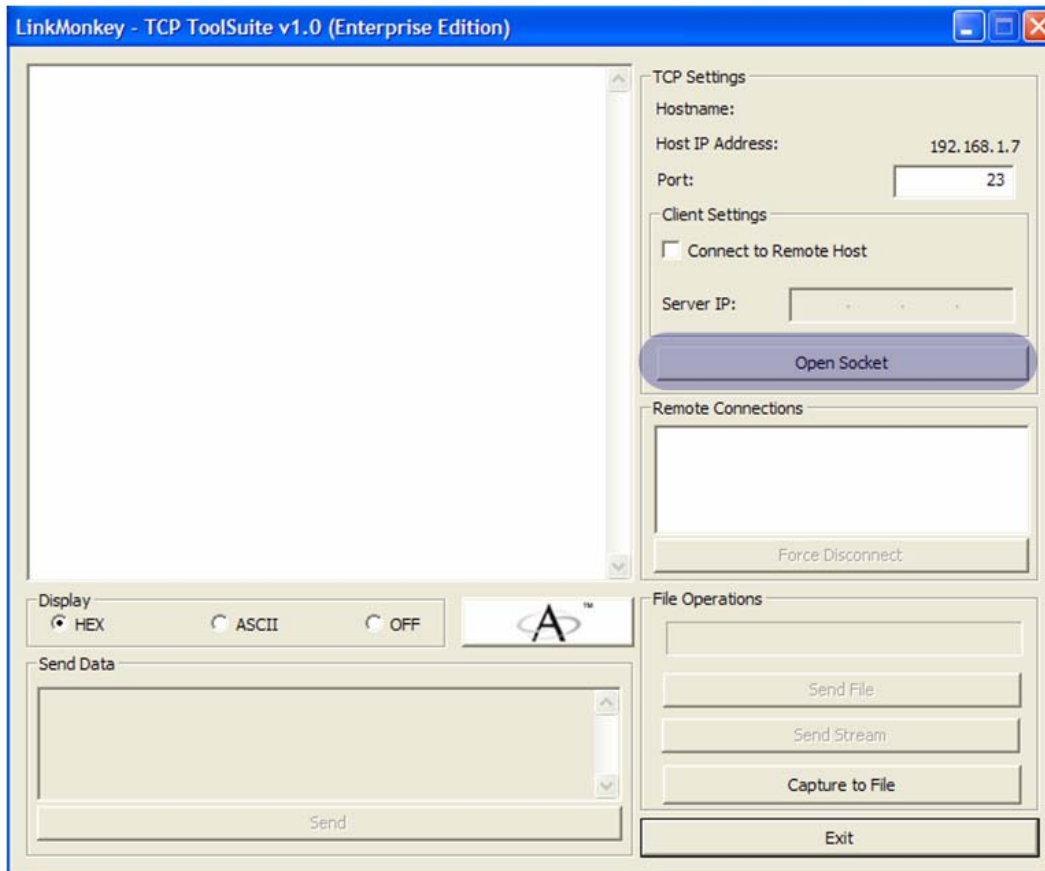


Figure 2 : The "Open Socket" button causes the application to listen to the Ethernet socket port listed in the "Port" field.

1.1 System Requirements

- Windows 95, 98, 2000, XP, or Vista
- 200MHz Pentium or equivalent processor
- 32MB of RAM
- Ethernet connection to a Local-Area-Network (LAN)



1.2 Licensing

LinkMonkey requires a valid license key to fully operate. Without a license key, LinkMonkey will operate in shareware mode – the application will only operate for 30minutes during the first 30 days of use. After this time period, the application will only operate for 30 seconds without a key. To obtain a license key for LinkMonkey, visit www.apexhyperion.com.



2 Product Installation

1. For internet downloads, the compressed ZIP file must be decompressed to a temporary folder. The contents of the decompressed folder will contain a file called "setup.exe". Execute this file by double-clicking on the setup.exe icon. For CD purchases, inserting the CD into the CD-ROM drive should begin the installation process. If not, the file called "setup.exe" can be executed from the root directory of the installation CD-ROM.
2. A self-extracting installation wizard will guide the rest of the installation process.

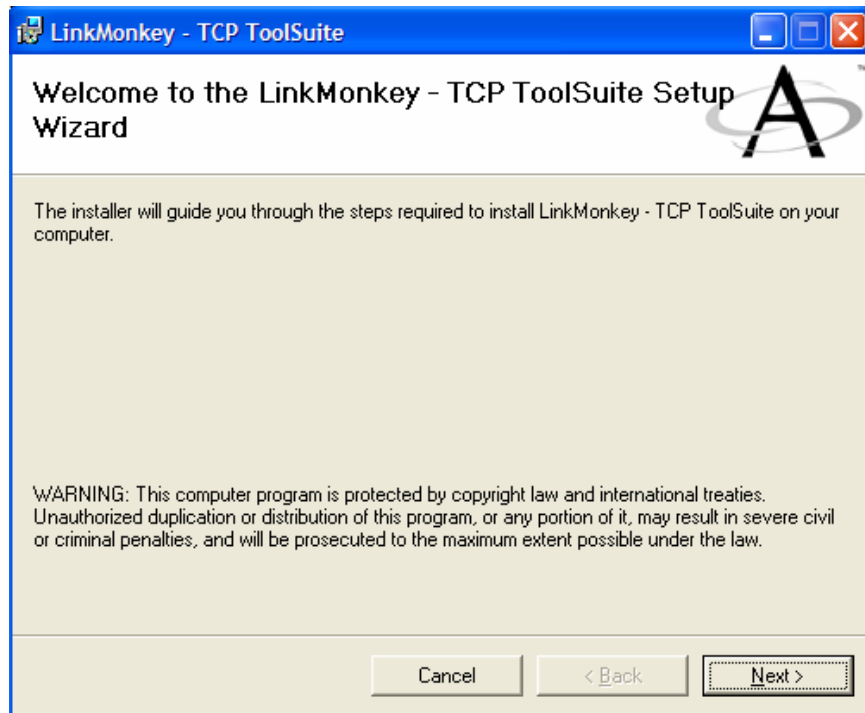


Figure 3 : A self extracting installer will guide the rest of the installation of the software

3. When the installation completes, the installation wizard will automatically close. The software can be accessed by traversing to the installation destination directory specified in the wizard (the default directory is C:\Program Files\ApexHyperion, Inc\LinkMonkey – TCP ToolSuite\)
4. The software can also be accessed from the Start menu under "Programs\ApexHyperion"
5. The software can be completely removed by using the "Add or Remove Programs" manager in the Control Panel.



3 Product Interface

3.1 Getting Started

The LinkMonkey application utilizes the standard PC Ethernet network card to provide data transfer services in either a client or server mode. The purpose of this application is to make the network port of a host computer accessible to the user for diagnostics or general data exchange. Some sample applications include, but are not limited to:

- Network connectivity diagnosis
- Providing basic instant messaging capability within a LAN
- Transferring files over the LAN
- Sending a script or continuous stream data over the LAN

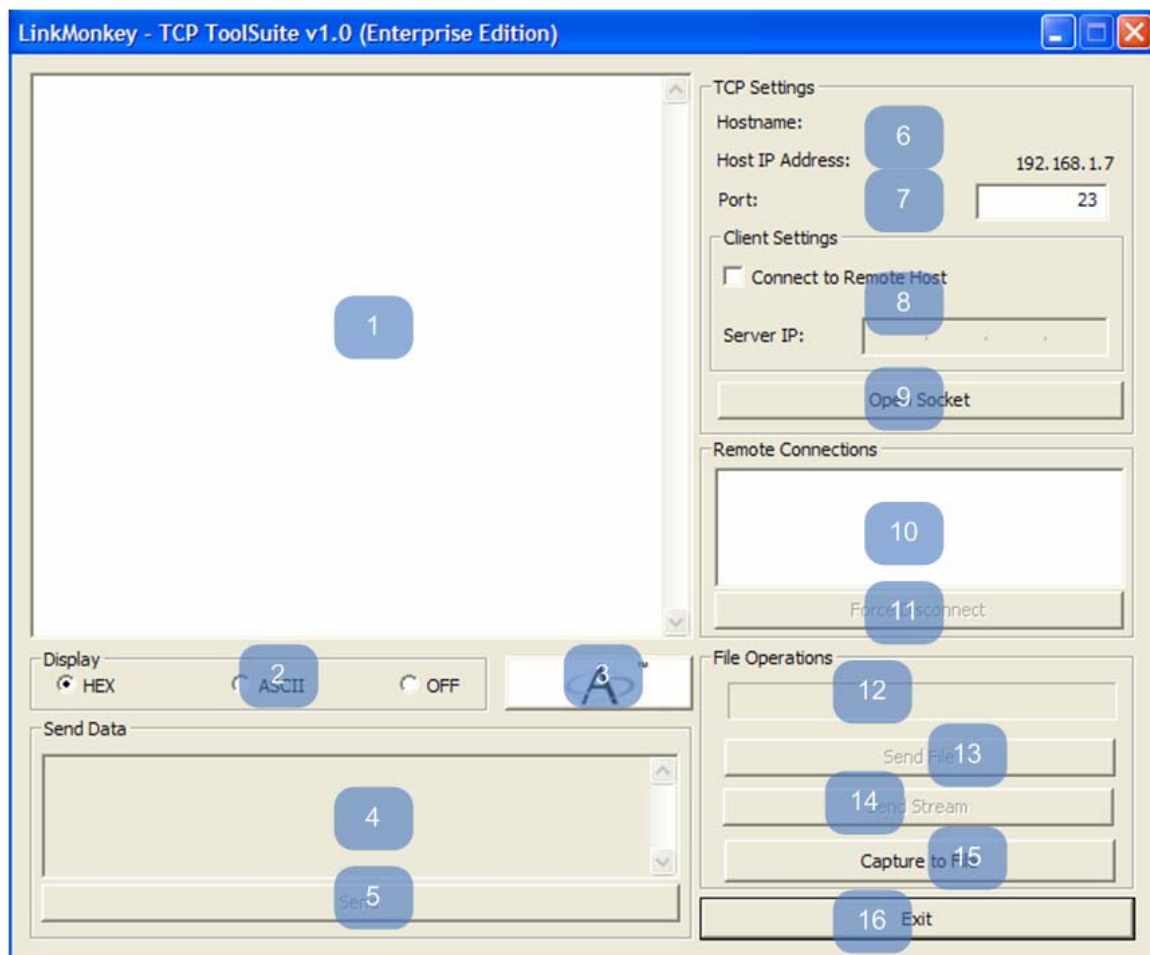


Figure 4 : LinkMonkey Interface Controls

The interface controls of the application are shown in Figure 4. The mapping of these controls is listed below and the usage is described in greater detail in subsequent sections.



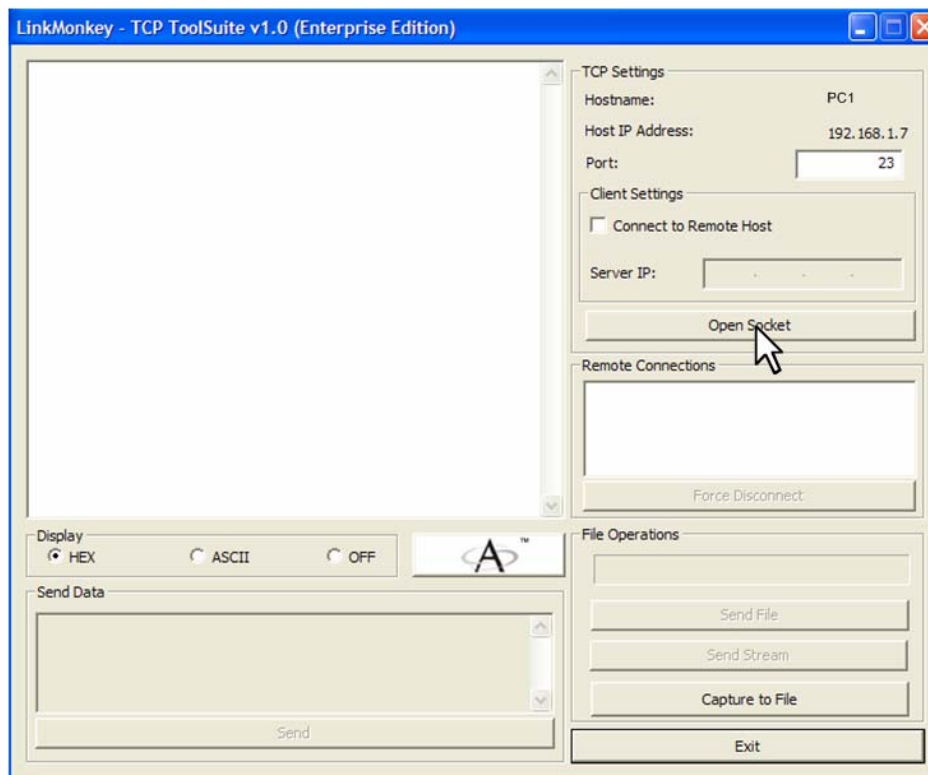
1. Display Window – Displays all data that passes through the application. Also displays error and status messages generated by LinkMonkey for the user.
2. Display Format – Allows display in either Hex or ASCII. This settings applies for the display (1) and the data parsed in (4). An option to turn the display OFF is also provided to reduce latency during high volume data transfer.
3. About Info – Provides additional information about LinkMonkey.
4. Send Data Window - Allows user to send data to a remote device. The format of the data is determined by the setting of (2). When tying data manually, LinkMonkey waits for the user to press the “Enter” key prior to sending the data. Alternately, the “Send Data” button (5) can be pressed to send the data typed in this window.
5. Send Button – Causes data typed in Send Data Window to be output to the remote connection highlighted in (10).
6. TCP Settings – A network query is made by the LinkMonkey application during the initial program launch to determine the host name and IP address of the local PC.
7. Port – This control establishes the TCP port number to use in the socket connection.
8. Client Settings – When the “Connect to Remote Host” button is unchecked (default), the program will operate in Server Mode when the “Open Socket” button is pressed. In this mode, LinkMonkey will not attempt to make any connections, but will be available for up to 100 clients to connect simultaneously. When the “Connect to Remote Host” button is checked, LinkMonkey will attempt to connect to the remote server whose IP address must be specified by the user in the “Server IP” field.
9. Open Socket – Opens a server connection to the port number described in (7). LinkMonkey allows up to 100 simultaneous client connections as a server, and can connect to 1 server as a client.
10. Remote Connections – Lists the Ethernet clients currently connected to LinkMonkey.
11. Force Disconnect – Allows user to force a disconnect of the client connection highlighted in (10).
12. File Progress Bar – Indicates the completion status of a file or stream transfer operation.
13. Send File – Allows the user to send a specific file or script to a remote device on the network highlighted in (10).
14. Send Stream – Allows the user to send a file in continuous mode. In this mode, a file is continually monitored - as contents are added to the file, the new data will automatically be sent to the highlighted remote connection in (10).
15. Capture to File – Saves communication to file
16. Exit – Exit the application.



3.2 Tutorial

This section will provide step-by-step directions to establish a connection between two computers using LinkMonkey. It is necessary for the computers to be connected to the same Ethernet local-area-network(LAN) in order for LinkMonkey to establish connections. For the purposes of this tutorial, if two computers are not available, two (or more) instances of LinkMonkey can be opened on a single computer to explore the features available.

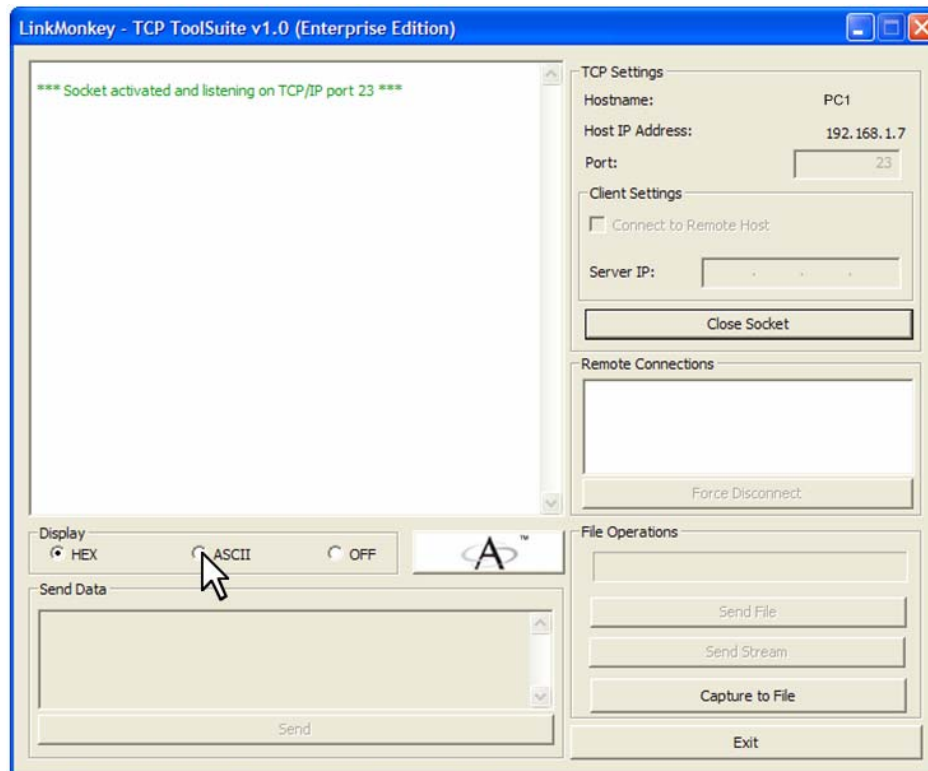
1. Execute LinkMonkey on a computer in the LAN. We will (arbitrarily) assign this standard PC with the responsibility of being a server. We can do this by leaving the "Connect to Remote Host" checkbox unchecked and pressing the "Open Socket" button. Note that the IP address of the LinkMonkey server is 192.168.1.7. This will not necessarily be the same on your computer. Please note this address accordingly.





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2. As shown in the diagram below, LinkMonkey will indicate that a socket has been activated and is listening on the specified port – in this case, port 23. This instance of LinkMonkey has been activated in Server mode and will now allow up to 100 connections to other computers that wish to connect to this PC (called PC1 in this example) on the specified port. Click the “ASCII” button shown in the diagram below. This will send all data as ASCII text and display incoming data in ASCII readable format. The HEX option will represent all incoming data as the hexadecimal equivalent values. In this mode, all data entered into the “Send Data” box will be read as hexadecimal digits and all illegal characters will be ignored.

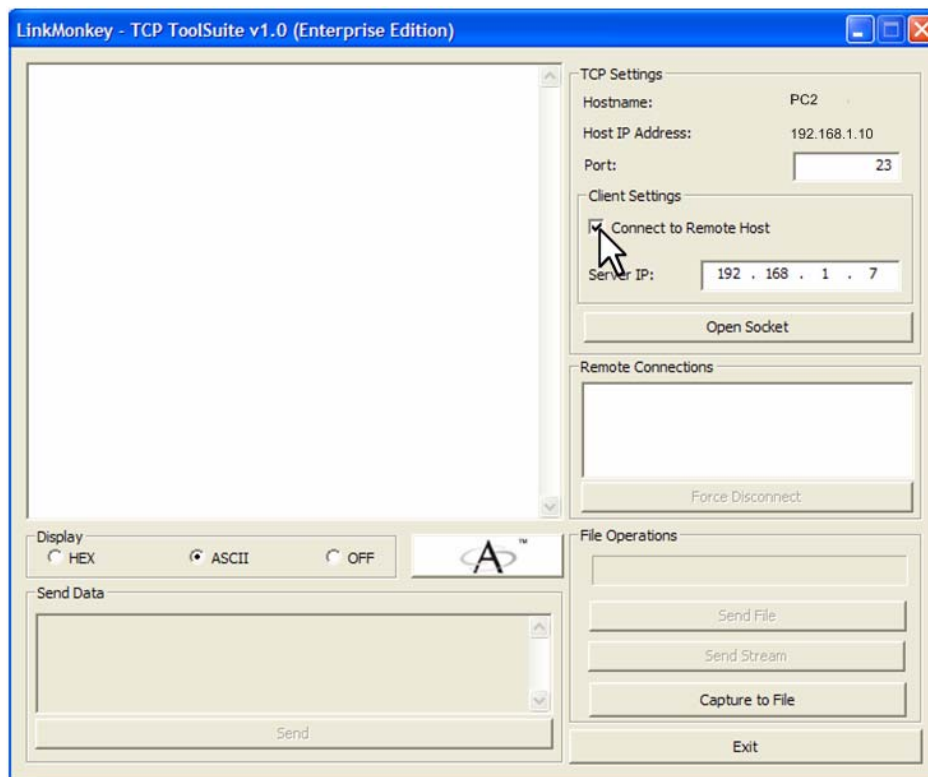


The LinkMonkey server is now ready to accept connections.



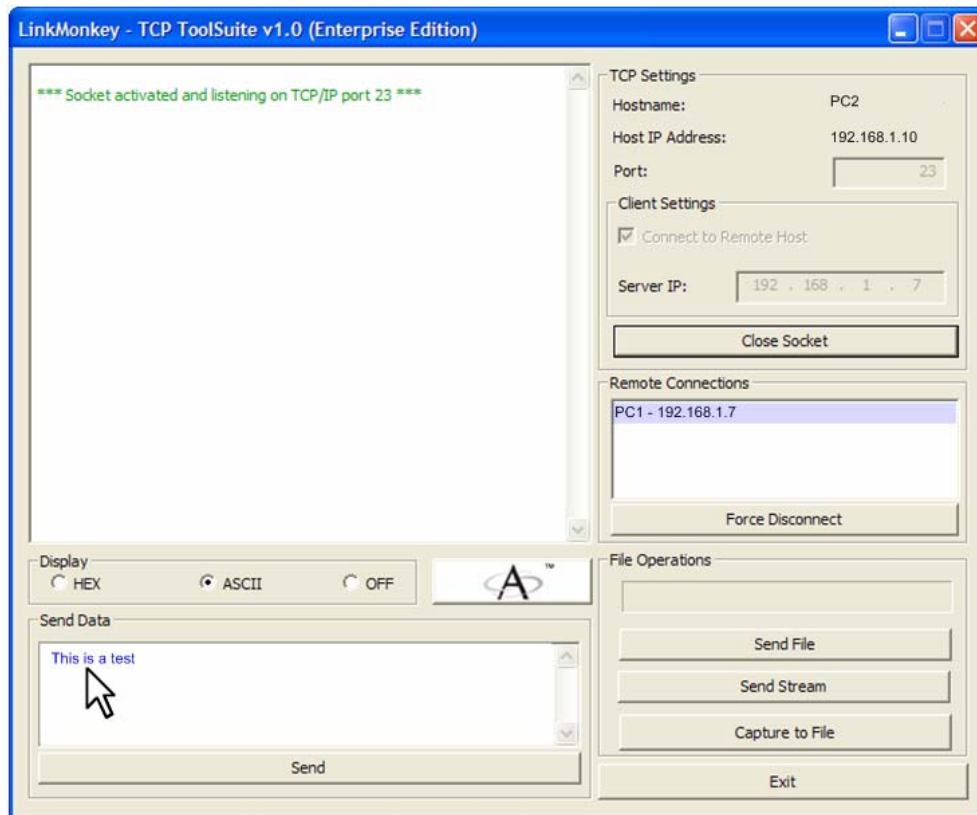
3. On a different computer (called PC2 in this tutorial), open a second instance of the LinkMonkey application (or if a second PC is unavailable, open a second instance of LinkMonkey on the same computer – it is not generally of practical use to open multiple instances of LinkMonkey on the same computer at the same Port number but this can be done to test the application or to go through the tutorial). For the sake of this demonstration, click on the “ASCII” Display option.

On this instance of LinkMonkey, which will be set up as a TCP client, click the “Connect to Remote Host” button as shown in the figure below. When this box is checked, the “Server IP” field will become active. Enter the IP address of the LinkMonkey server in this field and then press the “Open Socket” button. In this example, the IP address of the LinkMonkey server is 192.168.1.7.





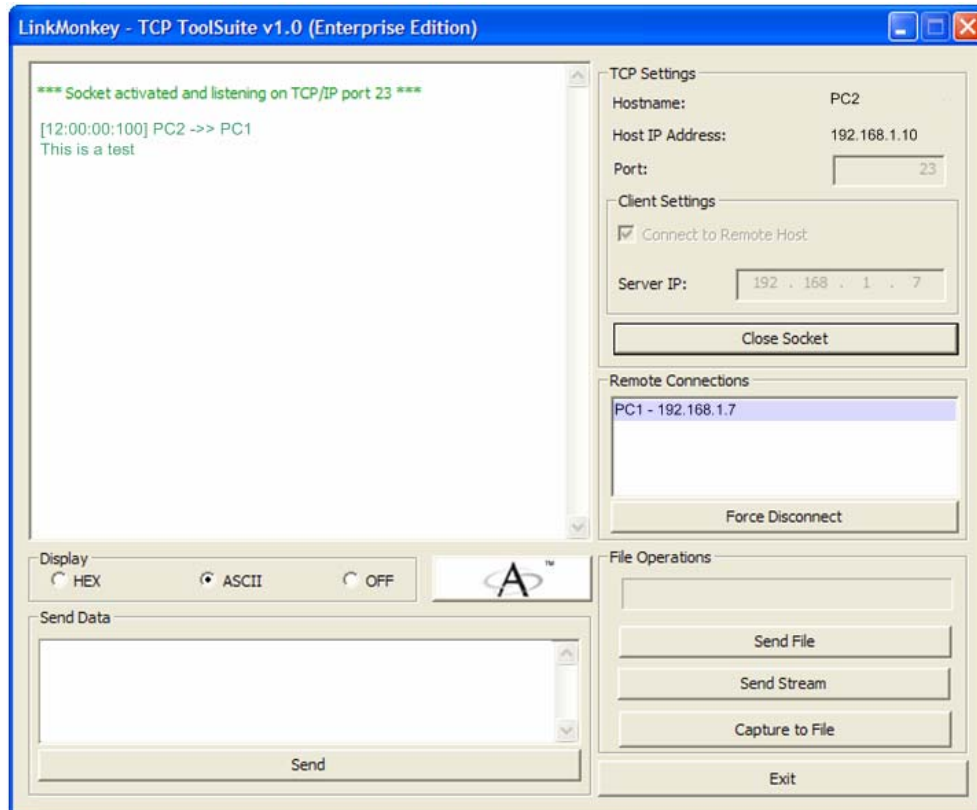
- Note that several things happen when a connection is established between the client and server. First, in the "Remote Connections" listbox, PC1 (which is the LinkMonkey server) is listed along with its IP address. Also, various file operations and the "Send Data" became active and are available for our use. A similar set of changes can be observed on the computer running the LinkMonkey server. Type some data in the "Send Data" window followed by the "Enter" key on the keyboard.





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5. Upon pressing the "Enter" key on the keyboard, the "ASCII" text that had been entered in the "Send Data" window is sent to the LinkMonkey server and also displayed locally in the display window. The Display window also displays a time-stamp and direction indicator describing the source and destination of the data. A complementary set of actions can be viewed and performed from the LinkMonkey server.





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6. This concludes the LinkMonkey tutorial. The guided tour provided guidance on some basic operations. By utilizing the various input/output tools available in the LinkMonkey application, an Ethernet connection can provide great utility and flexibility to the user.



4 Support

Q: Why can't I connect to LinkMonkey from a remote telnet terminal?

A: Ensure that hostname/IP-address and port number are specified correctly on the telnet client. It is important to have LinkMonkey configured to operate in Server mode – "Connect to Remote Host" must be unchecked. LinkMonkey displays its local information on its screen. Also, ensure that the port selected is not blocked by a firewall or anti-virus agent.

Q: I thought LinkMonkey was able to support up to 100 simultaneous connections, but I can only make one connection to it. Do I have the appropriate settings?

A: Ensure that LinkMonkey is set to Server mode – "Connect to Remote Host" must be unchecked. When the "Connect to Remote Host" is checked, it makes the application operate in Client mode. This mode only allows a single – LinkMonkey initiated connection. As a server, when the "Connect to Remote Host" button is unchecked, the application can accept up to 100 simultaneous connections.

Q: Why does my LinkMonkey software automatically exit after 30 minutes?

A: The free evaluation version provides the user with full access to all the features of the software, but limits the usage to 30 minutes. A purchased license key will eliminate the 30 minute evaluation restriction.

For specific questions that are not covered in this document, contact support@apexhyperion.com

