MediaHost Client (Version 1.00)

by MediaHouse Software Inc.

Thank-you for downloading the MediaHost™ Client Software (or Terminal Software).

The MediaHost Client Software is used to access a MediaHost Server across a network by dial-up. MediaHost Client/Server Software blends e-mail, live conferencing, and popular BBS functions such as file areas and access security to create an on-line system that goes far beyond the capabilities of conventional BBS or e-mail packages.

MediaHost offers a true multi-tasking, multi-document interface where you can participate in chat conferences, receive system resources and transfer files concurrently. Multiple images, messages, chat conferences, file areas and menus can all be on the MediaHost desktop at the same time. They are easily navigated using the system tree built into MediaHost or by clicking on a document to bring it to the top. The MediaHost multi-document interface even allows cutting and pasting between messages, chat and the clip-board.

MediaHost uses an advanced bi-directional packet switching protocol for communication between client and server. The MediaHost server interprets client requests for data by retrieving files, messages, images, etc., processing queries and building lists. Data is then disassembled into packets and queued in the packet stack and switched to the appropriate channel for transfer to the client end. When the client receives packet data the integrity of each packet is verified before packets are reassembled into files, messages, lists, chat etc. for display to your system. Of course this process takes place very quickly which is especially apparent on network or high speed dial-up connects where large amounts of data can be transferred seamlessly in seconds.

MediaHost creates a natural interface for you using an icon concentric design to identify features like file and e-mail areas. Screens can include 24 bit CMP and JPEG photo images and compressed TIF or GIF images. 24 bit thumb-nails of images on CD-ROM or in file areas can be viewed almost instantly on network connections and in a few seconds from remote. E-mail is naturally an important part of the Media-Host system and includes private mail boxes, public mail conferences, carbon copies, and mail history all in a word processor style message editor that supports cutting and pasting between messages and the clipboard. Prepared messages can easily be inserted into the message editor and e-mail can be printed through the Windows clipboard. The message editor comes with a name finder that only requires part of a name to find all the matches in the user database. This feature insures that other users will always receive the private mail left to them.

MediaHost improves on BBS style file areas with features like multi-line descriptions, powerful background searches, image previews, reading of text files, archive viewing and file queues. Every file is categorized with a descriptive icon which offers 'at a glance' information about a file. File uploads and downloads are a background operation which leaves you free to chat, do messaging, or receive system resources.

About the MediaHost Technology...

The MediaHost system was designed from the ground up for bottom end power, of its over 150 thousand lines of code more than 75% is dedicated to high speed engines. The first engine designed for MediaHost was its error correcting bidirectional packet switching protocol otherwise known as BPSP or Bidirectional Packet Streaming Protocol. The BPSP protocol allows high level features like the Message Reader to communicate with the server while other communications tasks take place. The BPSP protocol is able to route up to 256 client/server conversations at the same time. Conversation elements are routed between the client and server as Packets.

Packets are accumulated, usually while the serial link is busy and assembled into blocks. This process is called multiplexing. Blocks can contain multiple packets for batch transmission and error correction, which makes the protocol very efficient. When a block is OKed by the receiving client or server system it is de-multiplexed. The resulting individual packets are then queued and sequenced for receipt by the processing engine. This process can happen in two directions at the same time on the same serial link. This protocol allows the server to send a conversation element such as a chat text packet to the client, while at the same time the client sends its own block, for example an upload packet to the server.

The second important element required by MediaHost was a multitasking engine. In order to query a message list, chat and receives files all at the same time we needed to multi-thread. Windows 3.1x does not provide this type of multi-tasking as one of its many abilities so a different solution was required. The end result is an Object Orientated coding system based loosely on artificial life forms. We call the system "Cellular Object Code". These cellular elements each perform a task and have the ability to spawn the existence of new cells as well as terminate others and themselves. Each cell has its own task and purpose, for example one cell may search a message base while another serves file blocks. Using Virtual Objects each cell has its own 'memory' of what it is doing, so multiple versions of the same cell such as message search cells can operate in tandem without interfering with other operating cells. Cells also have a scheduling status allowing more important cells to gain more operating cycles than less important cells. Each cell also has the ability to interact directly with the inbound and outbound packet queues provided by the data transport layer allowing data to be sent or received between client and server cells.   Cells also can communicate with each other which is called interprocess communications.

The graphical layer rides on top of the cells and is the only operating system dependent part of the MediaHost system. In this package this display layer is tailored to the Windows operating system. This single code layer accounts about 35 thousand of the 60 thousand lines of code that make up the bulk of MediaHost Client Software. User interactions with the client are translated into client/server transactions, often processed by the local client and confirmed by the remote server. This off loading of work from the server to the remote client CPU makes the MediaHost System very efficient.

MediaHost also offers a new Mail Engine called the GOMAIL system. What makes the GO system unique is its speed. The GO engine can index and find new mail at rates up to 500 thousand plus messages per second on Pentium class machines. Special design considerations make a complex query a simple incremental search. This incremental approach allows cells to perform their tasks quickly and in sequenced steps. One of the design elements that makes the GO system powerful is its 32 bit message handling system. Every message on the Host system has its own unique 32 bit handle. A Message can be found in milliseconds flat anywhere on the Host as long as the handle is known. Don't worry you don't have remember message handles, all message handles are processed internally in the background. GO indexing technology is used throughout the MediaHost system and can be found in file libraries and user base structures.

MediaHost also provides a DLL gateway. Add on applications such as MediaBase use this gateway. MediaHost itself is not aware of any gateway activity as special cells are responsible for running and processing packet traffic between the DLL and MediaHost.   MediaHost DLL gateways are unique in the fact that they are not responsible for any of their own communications. They simply send and receive packets which are routed to and from the inbound and outbound packet stacks. Due to the close relationship between a DLL and the MediaHost packet router, gateway operation is completely integrated with MediaHost and in no way appears as if it were an add on. This means you can continue to read mail, chat and transfer files while a complex database search is being performed in an add-on like MediaBase.

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Installation:

• After downloading the self extracting .EXE named MHC????.EXE to a temporary directory that

contains no other files, run the self extracting EXE program.

• In Windows go to the File menu located on the menu bar at the top of the Windows Program Manager and select the **RUN** option.

• Enter the full path to your temporary directory including the program named **SETUP.EXE** in the COMMAND LINE field of the **Run** dialogue box. For example, if you placed the downloaded archive file in your C:\TEMP\ directory, the following Command Line is used to install the MediaHost Client. C:\TEMP\SETUP.EXE

• Once the install process begins the MediaHost Client will request an install path and directory. The default path can be accepted by clicking OK or a new path can be typed into the space provided in the dialogue box.

• You will be prompted to setup the Client for use with Serial communications devices or for use on a local area network or local mode.

• The Spool Directory is used by the MediaHost Server to spool packet traffic across a network or locally. If you selected network mode you will be requested to provide a path to the spool directory which will probably be a directory on the Servers hard drive. On a one machine installation the network option allows you to logon to MediaHost locally and the path you specify will be on the same machine. The Spool Directory is defined in the MediaHost .INI file. Refer to the section in the manual titled INI files for more information.

• After you have set up serial or network mode the install program will copy all the required files from the install diskette or temporary directory, notifying you as each file is successfully copied into the installation directory.

• If you selected serial mode you will be presented with a dialogue box used to set the basic parameters required for serial communications. Serial ports 1 through 8 are supported and baud rates up to 57,600 are supported. You can toggle between Dial Tone and Pulse Tone depending on your telephone installation.

• Typical baud rate settings are shown in the table below. These are only a guide and you may want use different settings.

2400	noncompressing	2400
2400	compressing	9600
9600	noncompressing	9600
9600	compressing	19200
14400	compressing	38400
28800	compressing	57600

• The MediaHost Client program group will be placed on the Windows desktop after the installation is complete. At this point you may wish to delete the files from the temporary directory you used for the installation of the MediaHost Client. This is not applicable if you installed from a diskette.

• Double click on the MediaHost Client icon to execute the Client software.

• Note: The Client will not work if you set the wrong serial Port number or if the Port you selected is used by another serial device like a mouse. To change an incorrect port selection open up a DOS window and change directory to CD\MHCLIENT or to the installation directory you specified. Load CSTERM.INI into DOS Edit or an Ascii text editor. Change the PORT= parameter to the correct port number and save the change you made. Reload the MediaHost Client and look for a response in the Ansi window.To get an absolute response from your modem, type AT in the Ansi

window and press Enter on the keyboard. If all is well your modem will respond with an OK.

Virtual Memory.

The MediaHost Client requires that you have a minimum of 4096 bytes of Virtual Memory. We suggest that Virtual Memory is set to Permanent if possible.

To check your Virtual Memory settings:

1) From the Windows desk-top select Control Panel from the Main icon group.
2) Double click on the Enhanced icon.
3) Select the Virtual Memory option.
4) You will see your Swapfile Settings.
        Drive   (the drive your swapfile is on)
        Size   (the size of your swapfile is in kilobytes)
        Type   (temporary or permanent)

Creating a Permanent Swap File:

1) Exit the Windows environment to the DOS prompt.
2) Run Defrag or your favorite disk defragmentation program, selecting the Drive you want the permanent swapfile located on.
3) Restart Windows.
4) From the Windows desk-top select Control Panel from the Main icon group.
5) Double click on the Enhanced icon.
6) Select the Virtual Memory option.
7) Select Change>>
8) Select the   Drive   you want the permanent swapfile to be on.
                   Type   select permanent
                   Size   minimum of 4096. Windows may recommend a larger swapfile which will enhance system performance. Refer to your Windows manual for more information on permanent swapfiles.
9) Check the 32-Bit Disk Access Box (it will have an X in it if selected).
10) If you have the option, Check the 32-Bit File Access Box (it will have an X in it if selected).
11) Select OK accept your settings.
12) When Windows prompts you to restart Windows accept the prompt.

Using The MediaHost Client Software

The MediaHost Client Software is used to connect with MediaHost systems. It offers two connection modes, dial-up and network.

There are three options on the MediaHost Client File pull down menu. The Connect option is used to connect with a MediaHost Server. The Disconnect option disconnects from the MediaHost Server. The Terminal Settings menu is used to set Client parameters.

The Connect Option.

If you have configured your MediaHost Client for Serial Connections, selecting the Connect option will display the Ansi window and the Dialing Directory window. Across the top of the Dialing Directory window is a button bar with, Dial, Edit, Add and Delete options. The Dialing Directory is used to Dial MediaHost systems and to store the information required to access them.

The Edit and Add icons are used to access the Entry Edit dialogue box. To Edit an entry in the

Dialing Directory highlight it in the list and click on Edit. The Entry Edit dialogue box will pop up filled with the information required to call that system. You can Tab through or click on the fields to make changes.The System Name is used by you to identify the system you are calling. The phone number field is used to dial that system. The Name and Password fields are used for your personnel information on that system. These fields also enable you to automatically logon to that system bypassing the Logon template.The Add icon will bring up the Entry Edit dialogue box with no fields filled in. Enter the system information and select OK. The new entry will be appended to the bottom of the Dialing Directory.To remove a system from the Dialing Directory first highlight it and then click on Delete. Not only will that system be removed from the Dialing Directory all the resources for that system on your hard drive will also be deleted including the subdirectory used to store the resources.

The Terminal Settings Option.

The Client Configuration dialogue box is used to make changes to the MediaHost Client software.The Default Mode toggles between Serial and Network mode. If Network mode is selected the Network Spool Path must be filled in to access the spool directory. By simply toggling this setting you to call MediaHost Systems across a network or dial-up a MediaHost system.

The Serial Settings are used if you require a different Modem Init String and/or a different Dial String for your modem.

The Com Port radio buttons are used to select a different com port. If you selected Modem/Serial mode be certain that there is a modem attached to the port to communicate with.

Modem baud rates can be set using the Speed settings radio buttons.The Network Settings input field is used to specify a Network Spool Path. This is required in order to logon to your system in local mode.