



Internet Multimedia V1.2

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About

Internet Multimedia enables real-time voice and data over the Internet. This includes the ability for two people to talk, to leave a voice message, to view and illustrate a whiteboard, and to chat— all over a standard connection.

The program uses voice compression to enable real time conversations which can be combined with chatting (text), and graphical interaction (scribbling and sending captures screen images) thus creating a communication medium of multiple media over the Internet (IMultimedia).

The following communications features are supported in this version:

- **Chat:** enables you to exchange short text messages with a remote user.
- **Answering machine:** enables you to leave a voice message on a remote host.
- **Voice communications (telephone):** Real-time Voice enables you to talk to another person over the Internet and can be used in conjunction with the other features.
- **Scribble:** multi-user drawing program you can use to sketch (scribble) an organization chart, draw a diagram, and perform similar tasks. You can also get a "snapshot" of an area of your screen and then paste it and send it to a remote host.

IRC (Internet Relay Chat) support allows you to establish a connection with any other IMultimedia user logged into an IRC server. In other words, this allows you to talk / Chat / Scribble with other people all over the world by just clicking on a name from a list of users who have logged in to this service.

Our vision is of a programme that combines the capabilities of a telephone with a rich set of data features, such as Application Sharing, File Transfer, conference Whiteboard, and conference Chat. This version has the chat, voice, and whiteboard features implemented. File Transfer and document sharing capabilities will be incorporated in future versions. Refer to [Future Enhancements](#) for further details.

Please refer to [Copyright](#) information for further details.

Installation

Medium

From Disk

Installation Procedure

Insert the first disk and type [a:setup](#), and follow instructions

From the Internet

Create a temporary directory and place the Zipped file in it.

Pkunzip program and then run [setup](#).

Step by Step Instructions

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Overview

Internet Multimedia enables real-time voice and data over the Internet. This includes the ability for two people to talk, to leave a voice message, to view and illustrate a whiteboard, and to chat— all over a standard connection.

The program uses voice compression to enable real time conversations which can be combined with chatting (text), and graphical interaction (scribbling and sending captures screen images) thus creating a communication medium of multiple media over the Internet (IMultimedia).

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An IRC support feature allows you to establish a connection with any other IMultimedia user logged in to an IRC server. In other words, this allows you to talk / Chat / Scribble with other people all over the world by just clicking on a name from a list of users who have logged in to this service.

The aim is for a programme that combines the capabilities of a telephone with a rich set of data features, such as Application Sharing, File Transfer, conference Whiteboard, and conference Chat. This version has the chat and voice features implemented. File Transfer and document sharing capabilities will be incorporated in future versions. Refer to [Future Enhancements](#) for further details.

To use the program, you must establish a connection over the Internet with another user who is also using [Internet Multimedia](#).

The program uses voice compression to enable real time conversations which can be combined with chatting (text), and graphical interaction (scribbling and sending captures screen images) thus creating a communication medium of multiple medias over the

Internet (IMultimedia).

In order to connect to a remote host, you will either need the remote machine's host name (for example hyperion.demon.co.uk), or the remote machine's Internet IP address (for example 152.133.56.2). With the IRC server support introduced with this version, contacting another user is now easier. Refer to using the [IRC Server](#) for further information.

If you are not sure what your host name and address are, they are displayed on [the Main Window](#).

The program can run in test mode, whereby you can run two instances of the software on your machine thus emulating a connection over the Internet. Refer to [Testing the Program on your Machine](#) for further details.

Return to [Step by Step Instructions](#).

System Requirements

Internet Multimedia requires the following minimum software and hardware requirements to run successfully:

- Window 95
- Windows 95 Audio codecs. Refer to “[audio compression, installing](#)” in the Win95 help file
- PPP and / or Slip Internet account
- 486 DX2 66 MHz
- 8 Mbytes of RAM
- V34 modem (28.8 kbit/s). The program will run on a V32bis modem (14.4 kbit/s) but delays will be experienced.
- Sound Card
- Microphone
- Loudspeakers or earphones

Note:

If you don't have a sound card or a microphone, you can still use all the none voice features in this program (Chat and Scribble).

Return to [Step by Step Instructions](#).

Running the Program

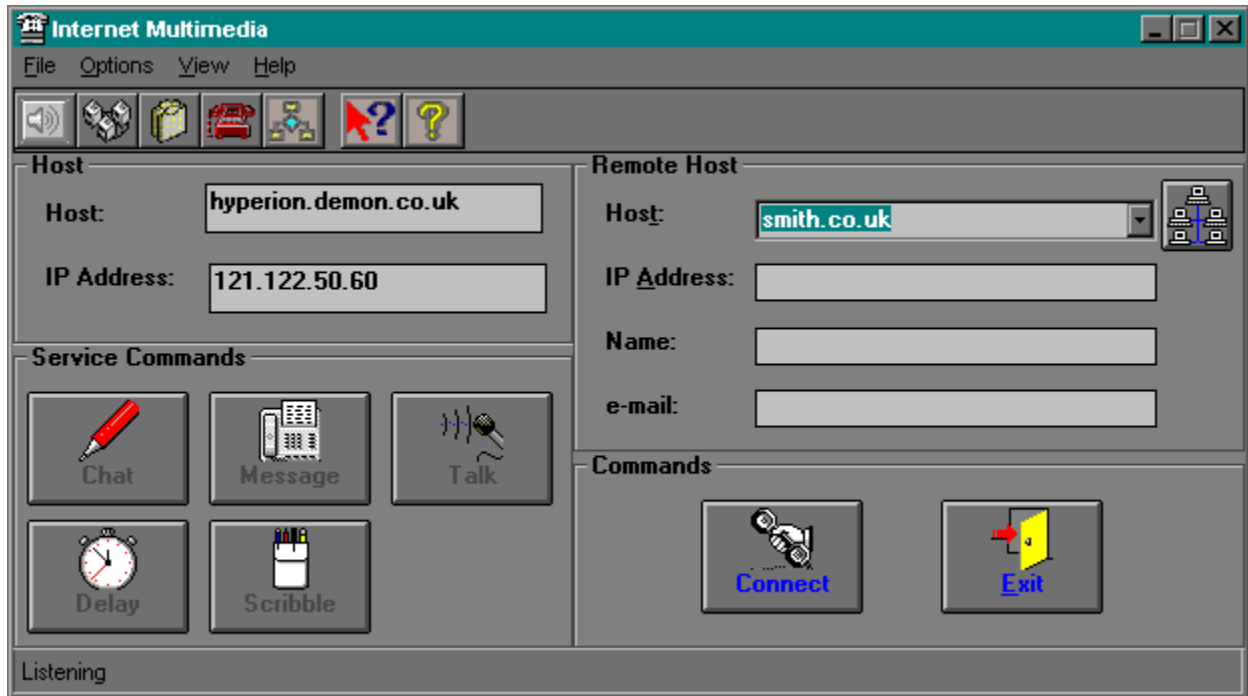
The installation program places a reference to [IMultimedia](#) in your [Start Menu](#) which you can use to invoke the program.

If you intend to run the program offline (i.e. without being connected to the Internet), you must set-up your Host file to include your IP address. Failure to do so may result in your computer hanging. Refer to [Setting-up Host File](#) for further details.

If you are an unregistered user, the program will remind you of the expiry date. Refer to [Registration](#) for information on how to register.

Return to [Step by Step Instructions](#).

Main Window



Click on any item for further details.

HOST NAME

The host name of your computer (e.g. xx@abc.co.uk).

HOST IP ADDRESS

The host IP address of your computer (e.g. 123.222.12.78).

REMOTE HOST NAME

The remote host name of the computer you are connected to (Server Mode), or wish to connect to (Client Mode). The combo box contains the list of host names listed in your address book.

Refer to [connecting to a remote host](#) for further information.

REMOTE HOST IP ADDRESS

The remote IP address of the computer you are connected to (Server Mode), or wish to connect to (Client Mode)..

Refer to [connecting to a remote host](#) for further information.

REMOTE USER NAME

The user name on the remote computer you are connected to.

REMOTE HOST E-MAIL ADDRESS

The e-mail of the user on the remote computer you are connected to.

CONNECT

Connect to remote host using either the remote host address or remote host IPaddress.

Refer to Establishing a Connection to a Remote Host for more details.

DISCONNECT BUTTON

Disconnect from remote host.

EXIT BUTTON

Exit the Program

CHAT BUTTON

Starts a Chat session with remote host. A connection to the remote host should be established before this button can activated.

Refer to [Chatting](#) for further details.

ANSWERING MACHINE BUTTON

Leave a message on a remote host. A connection to the remote host should be established before this button can be activated.

Refer to [Leave a Message on a Remote Answering Machine](#) for further details.

DELAY BUTTON

Display the round-trip packet delay between host and remote machine. A connection to the remote host should be established before this button can be activated.

Refer to [Round Trip Delay](#) for further details.

TALK BUTTON

Starts a Talk session (voice communications) with remote host. A connection to the remote host should be established before this button can be activated.

Refer to [Talk](#) for further details.

STATUS BAR

Displays the status of your computer.

SCRIBBLE

Opens the whiteboard for scribbling and capturing images. A connection to the remote host should be established before this button can be activated.

Refer to [IRC Server](#) for further details.

IRC SERVER

Opens an IRC session which enables you to connect to any user connected to an IRC server.

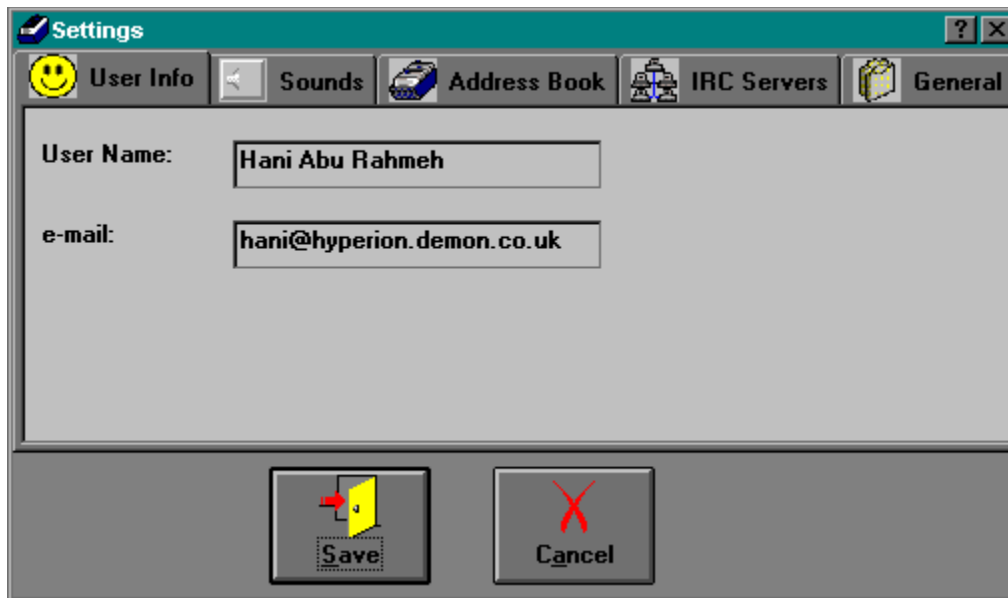
Refer to [Using an IRC Server](#) for further details.



Program Settings

To change the program settings, press the Program Settings button on the Main Window, or choose Setup from the Options Menu.

The following dialog box appears:



Click on any item for further details.



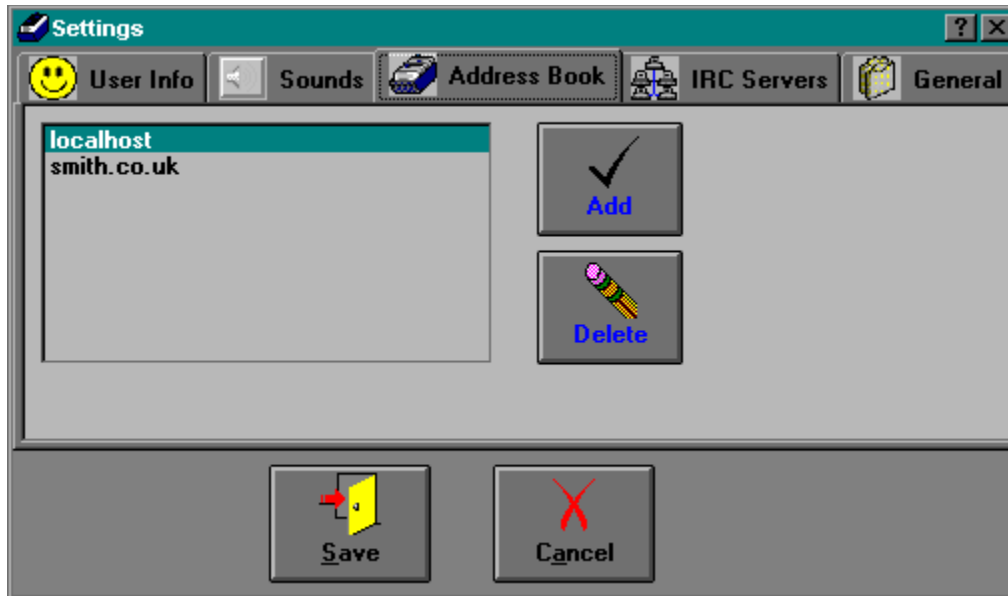
Program Settings



Click on any item for further details.



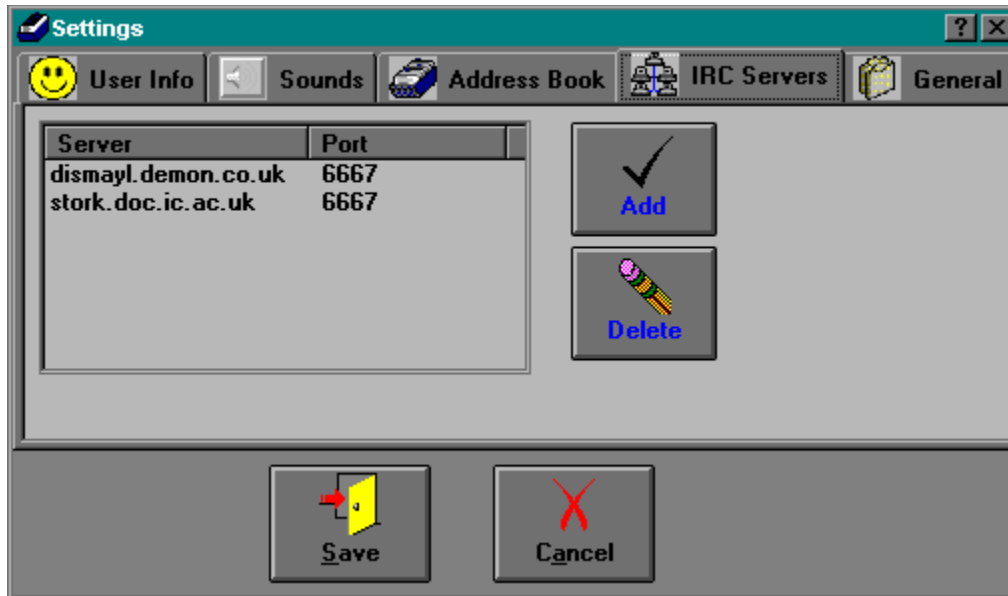
Program Settings



Click on any item for further details.



Program Settings

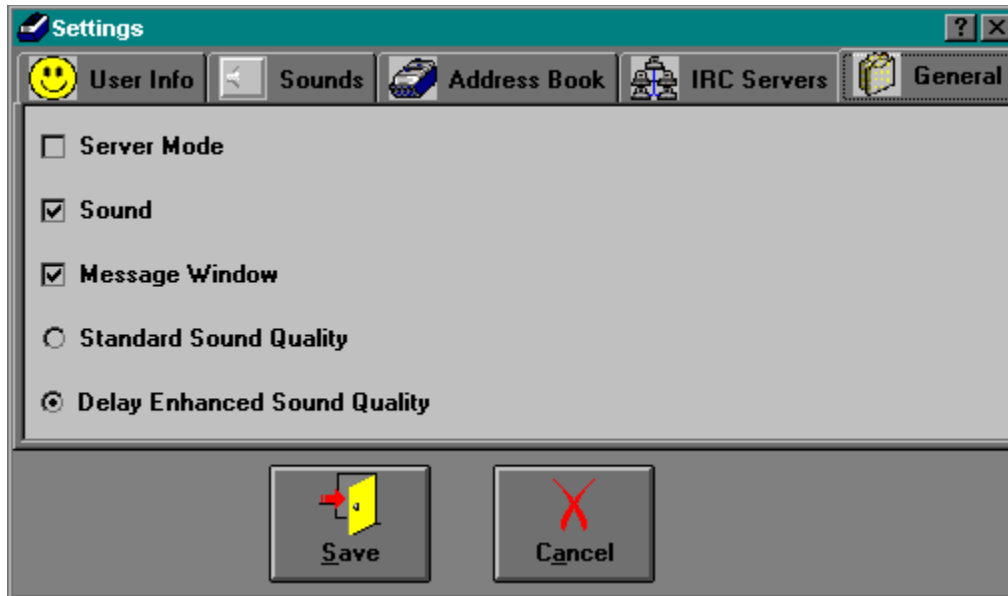


Click on any item for further details.

Refer to [IRC Servers](#) for a list of IRC servers you could use.



Program Settings



Click on any item for further details.

User Name

Enter your name (e.g. John Smith). Your user name will be sent to the remote host and will appear in the program's main window.

E-Mail Address

Enter you e-mail address (e.g. xx@yy.com). Your e-mail address will be sent to the remote host and will appear in the program's main window.

Save

Save all changes and exit Settings.

Cancel

Disregard all changes and exit Settings

Answering Machine Message

File name of the wave file containing your answering machine message. If path is omitted, IMultimedia assumes that the file is contained in the program's working directory.

This message should be short and compressed as it is transmitted over the Internet every time a remote host wishes to leave a message on your host.

You can either type the path and file name of the Answering Machine wave file message, or use the [Browse Button](#) to locate the file.

Refer to [Recording a Wave File](#) for information.

Ringling Tone

File name of the wave file containing the Ringing Tone. If path is omitted, IMultimedia assumes that the file is contained in the program's working directory.

You can either type the path and file name of the Ringing Tone wave file, or use the [Browse Button](#) to locate the file.

IMultimedia ships with a sample ringing tone wave file. If you wish to change it, refer to [Recording a Wave File](#) for information.

Ringling Disconnect Tone

File name of the wave file containing the Ringling Disconnect tone. If path is omitted, IMultimedia assumes that the file is contained in the working directory.

You can either type the path and file name of the Ringling Disconnect Tone wave file, or use the [Browse Button](#) to locate the file.

IMultimedia ships with a sample ringling tone wave file. If you wish to change it, refer to [Recording a Wave File](#) for information.

Play Sound

To listen to any of the file sounds, place the cursor in the corresponding input box and then press the Play Sound Button.

Browse

Searches for a file name on your disk, and places the chosen file name and path in the text box highlighted in blue and has the hand arrow associated with it.

To use, place the cursor in the sound file name box you wish to change, and then press the Browse Button.

Server / Client Default Settings

Select the default starting mode of the program. Options include Client or Server modes (selected means server mode)

Sound On/Off

Specifies whether you want sound to be on / off by default when you start the program (selected means sound on).

Standard Sound Quality

Selects the Standard Sound Quality as default. This Sound Quality guarantees clear sound but suffers from delay when the network is congested.

Delayed Enhanced Sound Quality

Selects the Delayed Enhanced Sound Quality as default. This sound quality reduces voice transmission delay at the expense of a slight deterioration in the sound quality.

System Message Window

The message window is a debug window which displays all the system messages that are being transmitted between the Client and the Server.

ADDRESS BOOK

This list contains the addresses or IP numbers in your address book.

ADD TO THE ADDRESS BOOK

Use this button to add an entry into the address book. When you click this button, you are prompted to enter an address or an IP number.

DELETE FROM ADDRESS BOOK

Deletes an address or an IP number from your address book. To delete an entry, select it from the list and then press delete.

IRC SERVERS

This list contains public domain IRC servers and their associated Port.

Contact your Service Provider for the most suitable IRC server in your area.

ADD AN IRC SERVER

Use this button to add an entry into the IRC servers list. When you click this button, you are prompted to enter the address and port number of an IRC server.

DELETE AN IRC SERVER

Deletes an IRC server from your list. To delete an entry, select it from the list and then press delete.

Recording a Wave File

The easiest way to record a wave file for an answering machine message is to use [“Sound Recorder”](#)

To use Sound Recorder, you must have a sound card and speakers installed on your computer. If you want to record live sound, you also need a microphone.

For information about how to use Sound Recorder, click the Help menu in Win95 and search for Sound Recorder.

Note

Higher quality sound files take up more disk space than lower quality sound files. It is advisable to use the following compression codecs for the corresponding messages:

- Answering Machine Message: This message will be transmitted to the remote host over the Internet. It is therefore recommended to have a short message compressed using the GSM 11 kHz compression algorithm.
- All other messages PCM 8kHz.

If you want to change settings for the selected sound quality, or you want to create custom recording formats and add them to the Preferred Quality list, click Customise.



Establishing a Connection to a Remote Host

Connecting to a Remote Host can be summarised as follows:

1. **Determining the Sound Quality**
2. **Client and Server Definition**
3. **Determining the address of the remote Host (Direct connection or through an IRC Server)**
4. **Establishing the Connection**

1. Sound Quality

Two sound qualities are now available:

- **Standard Sound Quality**: this is the sound quality used in the previous versions of IMultimedia. The Standard Sound Quality guarantees clear sound but suffers from delay and loss of packets when the network is congested.
- **Delayed Enhanced Sound Quality**: this sound quality reduces voice transmission delay at the expense of a slight deterioration in the sound quality.

The choice between the two sound qualities is a trade-off between delay and sound degradation.

As a rule of thumb, choose the Delayed Enhanced Sound Quality. If you are having problems understanding the other person, disconnect, select Standard Sound Quality, and re-establish the connection.

When a connection is established, the server and the client negotiate which sound quality to establish. If any of the machines is set to Standard Sound Quality upon connection, Standard Sound Quality is chosen for that particular connection. The message window displays the corresponding sound quality.

All previous versions of IMultimedia only support the Standard Sound Quality.

2. Client and Server Definition

In order to establish a connection to a remote host, at least one of the two machines should be running in Server mode. A connection can *only* be established to a remote machine running in Server Mode. It is advisable to keep your host in server mode to avoid missing any calls.

It is important that prior to establishing a connection, the two users determine who will run in client mode and who will run in server mode, i.e. who will connect unto the other user's machine.

You can toggle between Client and Server mode by pressing the Client/Server button on the Main Window Toolbar, or from the Options menu on the Main Window. You can set the default mode in Program Settings.

3. Determining the Address of the Remote HOST

In order to connect to a remote host, the Client needs either the server's name address (for example hyperion.demon.co.uk), or the server's Internet IP address (for example 152.133.56.2). One of the two addresses should be typed in the corresponding box on the Main Window.

Note:

Certain Internet providers provide a temporary IP address every time you dial-up. If this is the case, it is advisable that the machine with a permanent IP address be used as a Server.

You can also use the IRC Support feature in IMultimedia to establish a connection to any IMultimedia user connected to an IRC server. This is the easiest way to establish a connection as you do not have to worry about Internet addresses.

3. Establishing the Connection

Having specified the address of the remote host, the next step is to establish the connection by pressing the Connect button on the Main Window. You will hear a ringing tone if the sound option is on. When the connection is established, a message will be displayed in the status bar, and the remote user's details (name and e-mail address) are displayed accordingly. To set your User Information, refer to Setting User Information for further information.

If the server does not respond within 30 seconds, the Client Machine times out. This can occur if the remote machine is either not connected to the Internet, or not running in server mode. To avoid missing a connection, keep your machine in Server mode.

If the other machine is busy with another connection, a message is displayed on your status bar.

Return to [Step by Step Instructions.](#)

CLIENT

A Client host is a host that establishes a connection to a remote machine or Server.

You can toggle between Client and Server mode by pressing the Client/Server button on the Main Window Toolbar, or from the Options menu on the Main Window.

SERVER

A Server host is a host that receives a request for a connection from a Client host.

Host File

The Host File is a file in your [Windows Directory](#) called HOSTS which contains the name and addresses of commonly used sites. The file is used by Winsock to lookup the IP address of a host locally instead of using a DNS server when running Internet applications locally.

Example

A typical Hosts file will be as follows:

```
# Copyright (c) 1994 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Chicago
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97   rhino.acme.com# source server
#       38.25.63.10   x.acme.com           # x client host

127.0.0.1             localhost
158.152.30.148       hyperion.demon.co.uk
158.152.1.2          post.demon.co.uk
```

Place your IP and address in the HOST file if you plan to run the program offline (i.e. not connected to the Internet).

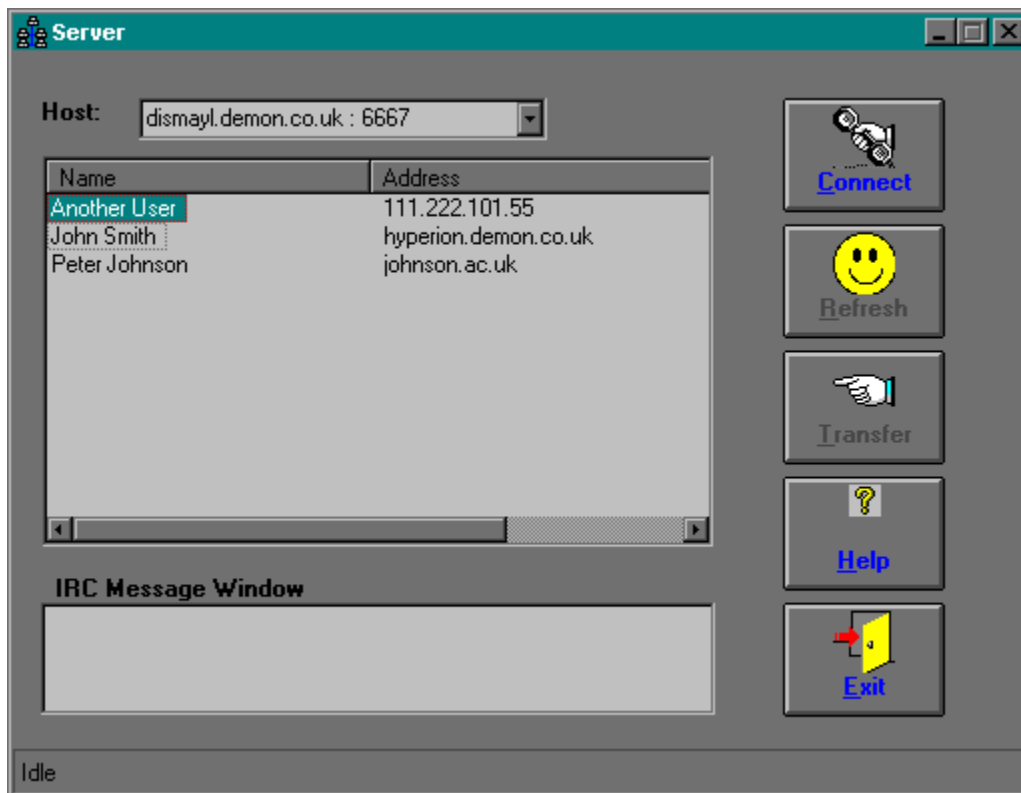
If you modify the Hosts file, you will need to restart Internet Multimedia for the changes to take effect.



IRC Server

The IRC server enables you to connect to any public domain IRC servers and establish a connection to any other IMultimedia user logged unto any other IRC servers. For a list of servers refer to [IRC Server List](#). This is the easiest way to contact other users, and should be the preferred method for setting-up a connection. Leave your machine in server mode to avoid missing any incoming calls.

When you connect to an IRC server, your name and address is sent to all other users connected to that server, thus enabling any of them to contact you.



Click on any item for further details.

[Operating Instructions for IRC Server:](#)

To connect to an IRC server, select a suitable one from the Host combo box, then press the [Connect](#) button. To add or delete a server, refer to [Settings](#).

All system messages exchanged with an IRC server are displayed in the IRC message

window. Monitor this window when establishing a connection to make sure that the server has responded to your connection. If the server is busy, you will be notified accordingly.

If all goes well, the list of connected IMultimedia user is displayed, including names and addresses. The list is continuously updated when connected to the server. If you only see your name, it means that you are the only one connected to the server.

If nothing gets displayed in the IRC list, one of the following has occurred:

- 1) The IRC server you selected is busy, try another one. By default, Imultimedia rotates through the servers every 30 seconds if they don't respond.
- 2) The address or port of the IRC server is wrong or busy.

If any of the above errors occur, choose another IRC server. You may wish to contact your service provider for a list of IRC servers and their associated ports in your area.

If you wish to update the list of connected users, press the [Refresh](#) button.

To call another IMultimedia user, select their name from the IRC list, and then press the [Transfer](#) button. The main window gets the focus with the address of the requested user displayed in the Remote Host Address box. Press the [Connect](#) button on the Main Window to establish the connection. Refer to [Establishing a Connection](#) for further information.

It is good standard practice to [Disconnect](#) from the IRC server before closing the IRC window. This will ensure that your nickname is freed, and can be reused in future sessions.

Note:

The IRC server is only used to establish a connection with other IMultimedia users. Once connected, all communications between the two machines is done directly. In other words, you can disconnect from the IRC server if you wish to do so after having established a connection, and your name will be removed from the list.

IRC HOST

Contains the list of IRC servers.

IRC LIST

Displays the name and address of IMultimedia users connected to the IRC server.

IRC MESSAGE WINDOW

Displays all the system messages exchanges with the IRC server. The list is only updated if the IRC Server form has the focus.

CONNECT / DISCONNECT

Allows you to Connect / Disconnect from an IRC server,

REFRESH

Refresh the list of users connected to the IRC server.

TRANSFER

Transfer the address of a selected user from the IRC list to the remote address box in the main window. Pressing connect in the main window will attempt to connect to that user.

STATUS

Status of the connection with the IRC server



Round Trip Delay

To check the round trip delay (transmission) between your host and remote host press the Delay Button from the Main Window.

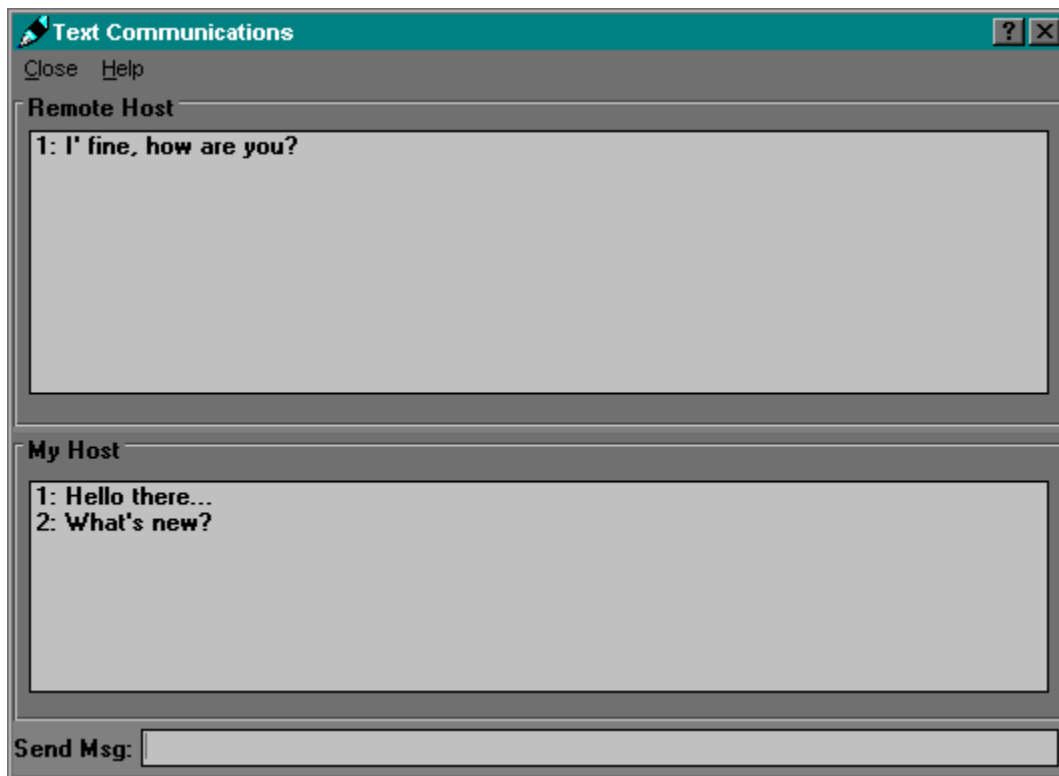
Round-trip delay is given in milliseconds.

By default, a packet is sent every 5 seconds to measure the round-trip delay. Should you wish to change this, press *Time Interval* Menu, and enter the new packet frequency in seconds. Do not use any frequency less than a second as this slows down your computer.



Chatting (Text Communications)

To Chat with a remote host by exchanging short text messages, press the [Chat Button](#) in the [Main Window](#). The following window is displayed on your host and on the remote host.



Click on any item for further details.

Type the messages you want to send in the [Send Message Box](#), and, every few seconds, the Remote host receives a snapshot of this message window. When done, press Enter to send the entire message.

Pressing [Close](#) on the Menu will close your host's and remote host's Chatting Window.

REMOTE HOST WINDOW

This window contains the messages received from the Remote Host.

MY HOST WINDOW

This window contains the messages you have sent to the Remote Host.

SEND MESSAGE

Type the messages you want to send in this Window. Every few seconds, the Remote host received a snapshot of this message window. When done, press Enter to send the entire message.



Answering Machine

In order for hosts to leave messages on your answering machine you need to:

- Be running in Server Mode
- Have the Answering Machine Switched on by pressing the Answering Machine Button Switch in the Main Window.

The following window is displayed on your host.



Click on any item for further details.

ANSWERING MACHINE MESSAGES

Contains the list of messages that you have received on your answering machine, including sender, date and time.

PLAY YOUR MACHINE MESSAGE

Plays your pre-recorded answering machine message. To change your message, refer to [Settings-Sounds](#).

PLAY A MESSAGE

Use this button to play the selected message in the answering machine list. If Automatic Continue is on, all the messages are played following the

DELETE A MESSAGE

Deletes a message on your answering machine. To delete an entry, select it from the list and then press [Delete Button](#).

STATUS BAR

Displays the status of your answering machine.

AUTO PLAY

Select this feature in order to play all the messages on your answering machine from the one selected. This button works after pressing the Play Button. If this feature is not selected, the program will stop after playing the message selected.

STOP PLAYBACK

Stops the answering machine from playing the current voice message.

REWIND

Rewinds the answering machine to the previous message. If Auto Play is on, the message is played.

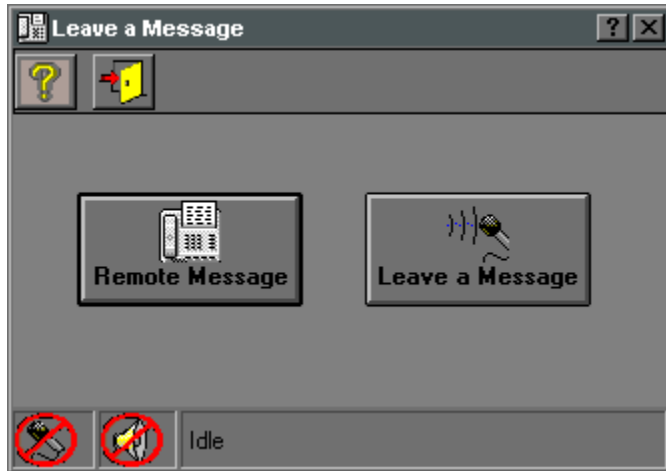
FORWARD

Forwards the answering machine to the next message. If Auto Play is on, the message is played.



Leaving a Message on a Remote Host

To leave a message on a remote host, press the Answering Machine Button in the Main Window. The following window is displayed on your host.



Click on any item for further details.

Note:

In order to leave a message on a remote host, the latter should switch the answering machine on. Refer to Switching Answering Machine on for further details.

RETRIEVE REMOTE MESSAGE

Retrieves the remote machine's message. The status bar displays the number of bytes received.

LEAVE A MESSAGE REMOTE MESSAGE

Leaves a message on a remote answering machine. Press the button to start recording a message, and also to stop recording the message.

The status bar displays the status of the microphone, and the number of bytes sent and received by the system.

Note:

Keep the messages short to save bandwidth on the Internet.

STATUS BAR

Displays the status of this form, including:

State of the host:

- (idle or an indication of the number of bytes transmitted)
- Speaker Status: to indicate if the remote message is being played.
- Microphone Status: to indicate whether a voice message is being recorded.



Voice Communications

To [Talk](#) to a remote host, press [Talk Button](#) in the [Main Window](#). The following window is displayed on your host and on the remote host.



Click on any item for further details.

[Operating Instructions for Voice Communications:](#)

To activate Voice Communications, press the [Start Talking Button](#). This will activate the [Autosense Feature](#). Speech packets will be sent to the remote host when you Talk through the microphone. To manually start / stop sending speech, press this button to start talking and press it again to stop.

The Sound Level meter gives the signal strength. If the level is high, move the microphone away from your mouth.

The threshold of Autosense (Speech vs. no Speech) is determined from the Sensitivity selection. Adjust the threshold from the [Options](#) menu to suite your microphone's sensitivity.

Speech received from the remote host is played automatically on your machine when you are not talking. You can force the system to play the remote user's speech by pressing the [Play Button](#).



AUTOSENSE MODE

Autosense is a feature that detects whether you are talking or not. This avoids sending blank speech packets to the remote host. The Status Bar displays the mode your host is in.

The threshold of Autosense (Speech vs. no Speech) is determined from the Sensitivity selection from the [Options](#) Menu.

TALK ON / OFF

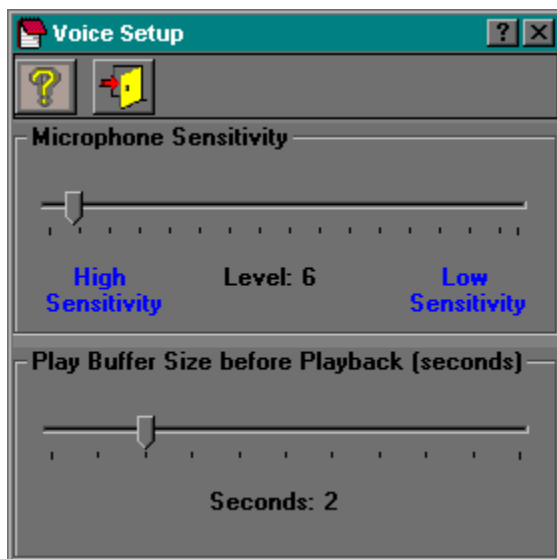
Use this button to start voice recording and place your host in Autosense Mode.

To manually start / stop sending speech, press this button to start talking and press it again to stop.

PLAY

Forces the system to play the remote user's voice message.

OPTIONS



Click on any item for further details.

This window determines the sensitivity of your microphone when operating in Autosense Mode, and also determines the buffer size in seconds before you start hearing the remote machine's message.

Microphone Sensitivity

The sensitivity, or threshold level, is the cut-over level between speech and no speech.

The Sensitivity Meter, or slider, should be adjusted so that when you are not talking the Status Bar displays **Idle**, and when you are it displays **Talking** for as long as you talk.

If the Status Bar displays **Talking** the whole time, lower the microphone sensitivity by moving the **Slider** to the right.

If the Status Bar displays **Idle** the whole time, increase the microphone sensitivity by moving the **Slider** to the left.

The Systems Message Window displays your Sound Level every $\frac{1}{2}$ second as M followed by a number. As a rule of thumb, set the sensitivity meter (cut-off) to your average sound level minus 15.

By trying different sensitivity settings, find the optimal sensitivity threshold for your system.

Play Back Buffer Size

The play back buffer size is the size of the buffer on your computer to fill-up (seconds) before IMultimedia starts playing the remote machine's message.

Packets over the internet transit with various degrees of delays depending on congestion. The Play Back Buffer size enables you to enhance the received voice message from the remote machine. The larger the buffer size, the smoother the play back of the remote machine's message as the buffer will ensure continuous play back when incoming packets are delayed. The larger the buffer, the longer becomes the round trip delay from the time you hear the message and respond to it. The buffer size is a trade off between sound quality and delay.

If the remote user's sound is choppy, increase the buffer size. This will be at the expense of longer delays as you have to wait for the buffer to fill-up before the message starts playing.

As a rule of thumb, set the buffer size to one second and then increase until the received voice is not choppy.

SENSITIVITY METER

The sensitivity meter determines the sensitivity of your microphone, i.e. the cut-off level between speech and no speech.

Move the Slider to the right to decrease the sensitivity of the microphone, and to the left to increase it.

SENSITIVITY LEVEL

Displays the value of the cutoff level corresponding to the slider.

PLAY BACK BUFFER SIZE BEFORE PLAY

Number of seconds to hold in the buffer before IMultimedia starts playing the remote user's voice message.

PLAY BACK BUFFER SIZE

Displays the size of the buffer in seconds.

STATUS BAR

Displays the state of your computer to indicate whether you are talking, receiving recorded speech from the remote host, etc.

SOUND METER

The Sound Level meter gives the signal strength. If the level is high, move the microphone away from your mouth.

CLOSE

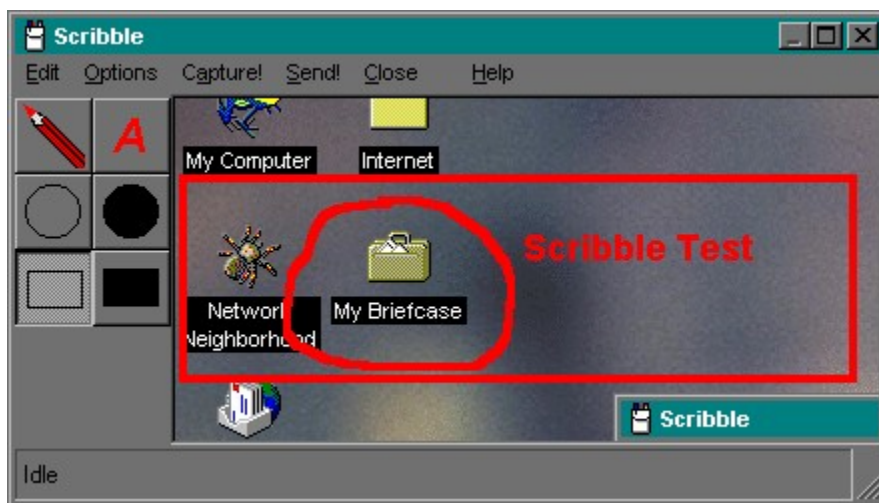
Stops all voice communications and goes back to the Main Window. The **Talk** window is closed on both the Client and Server hosts.



Scribble

Scribble is multi-user drawing program you can use to sketch (scribble) an organization chart, draw a diagram, and perform similar tasks. You can also get a "snapshot" of an area of your screen and then paste it or send it to a remote host.

To **Scribble** with a remote host, press Scribble Button in the Main Window. The following window is displayed on your host and on the remote host.



Click on any item for further details.

DRAWING AREA

The Drawing Area represents the part of the Window where you can scribble along with a remote user. All objects drawn or pasted in this area are also sent to the remote user

If you resize the drawing area, the remote machine's drawing area is also resized accordingly.

DRAW PEN

Select Draw Pen for freehand drawing in the Drawing Area.

To start drawing press the left hand mouse button and drag the mouse pointer. Release button to stop.

The drawing color and thickness are controlled from the [Option Menu](#)

TEXT

When you press the Text button, you are prompted to enter the text you wish to paste unto the drawing area by clicking at the desired paste location.

The text color and font are controlled from the Option Menu

CIRCLE

Use this button to draw a circle onto the drawing area.

To place a circle, click the top left hand corner on the drawing area and then drag the mouse to the bottom right hand corner. Releasing the left button transforms the rectangle into a circle.

The color and thickness of the circle are controlled from the [Option Menu](#)

FILLED CIRCLE

Use this button to draw a filled circle onto the drawing area.

To place a circle, click the top left hand corner on the drawing area and then drag the mouse to the bottom right hand corner. Releasing the left button transforms the rectangle into a circle.

The color and thickness of the circle are controlled from the [Option Menu](#)

RECTANGLE

Use this button to draw a rectangle unto the drawing area.

To place a rectangle, click the top left hand corner on the drawing area and then drag the mouse to the buttom right hand corner. Releasing the left button transforms places the rectangle unto the drawing area.

The color and thickness of the rectangle are controlled from the [Option Menu](#)

FILLED RECTANGLE

Use this button to draw a filled rectangle onto the drawing area.

To place a rectangle, click the top left hand corner on the drawing area and then drag the mouse to the bottom right hand corner. Releasing the left button transforms places the rectangle onto the drawing area.

The color and thickness of the rectangle are controlled from the [Option Menu](#)

EDIT MENU

- Clear the Screen:** Erases the host and remote hosts' screen
- Paste:** Pastes the contents of the clipboard unto the drawing area. The pasted picture can be sent to the remote host by pressing the [Send](#) button.
- Copy:** Copies the contents of the drawing area unto the clipboard.

OPTIONS MENU

- Font:** Selects the desired font for text entries
- Color:** Selects the desired color for freehand, rectangles, circles, and text.
- Line Thickness:** Selects the desired line thickness for freehand, rectangles, and circles.
- Capture Settings:** Sets the capturing options to capture snapshots of your screen. Refer to [Capture Settings](#) for further details.
- Auto Capture:** Selects / Deselects automatic capture. The frequency of auto capture is controlled from the [Capture Settings](#). On each capture, the drawing area is sent to the remote host.

CAPTURE MENU

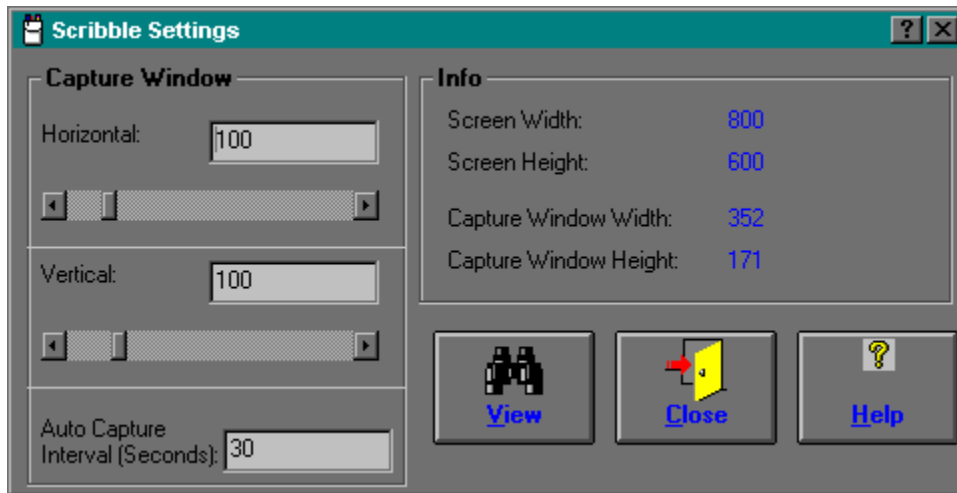
Captures the screen area within the capture window. The captured image can be sent to the remote host by pressing the [Send](#) button.

SEND MENU

Sends your drawing area to the remote host. This option is useful to send manually captured pictures (i.e. when you don't have the Auto Capture option selected) to the remote host.

Note that draw, text, circle, and rectangle objects placed on the drawing area are sent automatically to the remote host, and there is no need to press the Send button

CAPTURE OPTIONS



Click on any item for further details.

VIEW

Press to view the capture window's location and size. Everything within the capture window will be pasted into the drawing area when the [Capture](#) button is pressed or when [Auto Capture](#) is selected. The size of the capture window is the same as the drawing area's.

CAPTURE WINDOW CENTRE

Centre of the capture window's screen coordinates. The size of the capture window is the same as the drawing area's.

AUTO CAPTURE INTERVAL

Represents the frequency in seconds at which you wish to capture the area within the capture window. Auto capture is activated by selecting the Auto Capture option in the Options Menu.

It is recommended not to use frequencies of less than 30 seconds for a small drawing area, otherwise you will be constantly transmitting your capture image to the remote host causing a slow down on both computers.

Main Window Menus

FILE

[Exit](#): exit the program

OPTIONS

[Setup](#)

[Server](#): [Client](#) / [Server](#) Toggle

[Sound](#): Toggles Sound on / off

[Delayed Enhanced Sound Quality / Standard Sound Quality](#): Toggles between the two sound qualities

VIEW

[Answering Machine](#)

[System Message Window](#)

[IRC Server](#)

HELP

[Contents](#): Displays the Help file contents page

[Search](#): Search for a key

[About](#): Displays information about **IMultimedia**

Main Toolbar Menu



Toggles Sound on / off



Client / Server Toggle



Program Settings



Answering Machine



System Message Window



Displays Help for the corresponding window

Testing the Program on your Machine

The program can run in test mode, whereby you can run two instances of the software on your machine thus emulating a connection over the Internet.

In order to do that, you need to set-up your Host file. Refer to [Setting-up Host File](#) for further details. Your host file should contain the following line:

```
127.0.0.1    localhost
```

Run two instances of the program, and make one of them run in [Client Mode](#) and the other one in [Server Mode](#).

From the program running in Client mode, connect to the server by using [localhost](#) address. Refer to [Connecting to a Remote Host](#) for further information.

You can now test all the features included with this program. Please note that [Voice Communications](#) might not work well with some sound cards specially if you are running in [Autosense Mode](#). This is because this program does not support full-duplex mode, i.e. you can either record or listen to voice at any one time. To overcome this, whenever you finish talking in one program, press the [Stop Recording](#) Button to free the MCI device, then press the [Play](#) Button in the other one to hear the message.



Client / Server

Toggles between Client and Server mode.



Program Settings Button



Round Trip Delay Button



Chat Button



Switching Answering Machine On Button



Answering Machine Button



Talk Button



Connect Button



Auto Sense Mode Button



Scribble Button

Copyright

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This programme should not be copied, distributed, modified, or sold without the prior consent of the Author.

Registration Information

For further information, send e-mail to the Author (hani@hyperion.demon.co.uk), or refer to [CompuServe Registration](#).

Limitation of Liability

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SHOULD YOU DISAGREE WITH THESE TERMS AND CONDITIONS, DELETE THE PRODUCT FROM YOUR COMPUTER(S) AND DESTROY ANY AND ALL OF THE PRODUCT DISTRIBUTION DISKS. THE AGREEMENT IS NOT TERMINATED UNTIL ELIMINATION OF POSSESSED COPIES IS COMPLETE, AND WILL IN NO WAY BE RETROACTIVE. YOUR CONTINUED USE OF THE PRODUCT INDICATES YOUR ACCEPTANCE OF THESE TERMS.

Registration

The registration fee for this program is US\$ 15. The Unregistered Version will work for 30 days and will give you full access to all the features in [IMultimedia](#) with the exception of [Talk](#). When you use Talk, you will be disconnected after approximately three minutes, and you will be allowed to reconnect back after one minute.

You must register the program if you wish to use it beyond the 30 day trial period, otherwise you will be in breach of the license agreement.

If you register, you will receive through e-mail a program that will unlock your unregistered version, or a full program if you don't have an existing demo.

Your registration entitles you for two licenses so that two users can use the program to communicate with each other.

Registration also entitles you for free future upgrades and unlimited support through e-mail.

For further information on how to register, contact the [Author](#) or refer to [Registering through CompuServe](#) or [Registering through RegNET](#) instructions.

E-Mail Registration

For information about registration and payment, send e-mail to hani@hyperion.demon.co.uk.

You can also register through [CompuServe](#) or [RegNet](#).

CompuServe Registration

You can register through the SWREG forum on CompuServe. The program can be found under registration ID 11729. To register, GO [SWREG](#), and follow the instructions on the screen.

For further information, [e-mail author](#).

RegNet Registration

This program can be registered through RegNet - The Registration Network. The URL to reach the information / registration page about Internet Multimedia is <http://www.xmission.com/~wintrnx/regnet/225p.htm>

RegNet can be located on the World Wide Web at the following URL: <http://www.xmission.com/~wintrnx/regnet/regnet.htm>, or by calling 1 800 WWW2REG (1 800 999-2734) or (801) 355-5110 in the US. The program has REGNET # 225.

For further information, [e-mail author](#).

Technical Support

To obtain technical support on this product, please send e-mail to hani@hyperion.demon.co.uk.

Please state at least the following:

- Machine specification
- Run Mode (Server / Client)
- Which communications medium you were using (chat, talk, answering machine, or scribble)
- IRC Support
- License if registered
- Description of the problem

OK

Accept changes and close dialog box.

CANCEL

Discard changes and close dialog box.

HELP

Display the relevant Help Page.

CLOSE

Close the Form

CONNECT

Connects to a remote Host.

Planned Enhancement

IMultimedia will be continuously enhanced, this is why your comments are appreciated. If you would like any enhancements, please e-mail me on hani@hyperion.demon.co.uk.

Enhancements in the future will include:

- Document Sharing: this will allow users to manipulate and edit a document over the Internet while simultaneously conducting a voice or chat conversation.
- Duplex Communications
- Multi-user conferencing
- Video conferencing

New version to this program will be posted to [ftp.clara.net](ftp://clara.net) in directory /pub/commercial/IMultimedia.

You can also get the latest update from:

<http://ourworld.compuserve.com/homepages/hani/imm.htm>

What's New

Two sound qualities are now available:

- **Standard Sound Quality**: this the sound quality used in the previous versions of IMultimedia. The Standard Sound Quality guarantees clear sound but suffers from delay and loss of packets when the network is congested.
- **Delayed Enhanced Sound Quality**: this sound quality reduces voice transmission delay at the expense of a slight deterioration in the sound quality.

The choice between the two sound qualities is a trade-off between delay and sound degradation.



IRC Server List

This section contains a list of some of the IRC servers. The list is by no means comprehensive. It is worth noting that just because a server is listed here does not mean you can connect to it: many servers restrict which sites are allowed to connect.

There are many IRC server networks on the Internet which means that even though you are connected to a server, you may not see other users connected to servers of other networks. To overcome this, you should connect to an [Undernet](#) IRC network. List of sites is given below:

IRC server ports are assumed to be 6667 unless otherwise noted; most clients will assume 6667 if you don't specify a port.

AUSTRALIA AND NEW ZELAND

Sydney.NSW.AU.Undernet.Org
Wollongong.NSW.AU.Undernet.Org
Auckland.NZ.Undernet.Org

EUROPE

Amsterdam.NL.EU.Undernet.Org	Netherlands
Diemen.NL.EU.Undernet.Org	Netherlands
Caen.FR.EU.Undernet.Org	France
Ljubljana.SI.EU.Undernet.Org	Slovenia
Oslo.NO.EU.Undernet.Org	Norway
uk.undernet.org	UK

NORTH AMERICA

Phoenix.AZ.US.Undernet.Org	Arizona
Vancouver.BC.CA.Undernet.Org	British Columbia
Davis.CA.US.Undernet.Org	California
SanJose.CA.US.Undernet.Org	California
Chicago.IL.US.Undernet.Org	Illinois
Manhattan.KS.US.Undernet.Org	Kansas
Norman.OK.US.undernet.org	Oklahoma
Pittsburgh.PA.US.undernet.org	Pennsylvania

Montreal.QU.CA.Undernet.Org
Austin.TX.US.Undernet.Org
Washington.DC.US.Undernet.Org

Quebec
Texas
Washington

Future Versions

The latest version of IMultimedia can be found by anonymous ftp on [ftp.clara.net](ftp://ftp.clara.net) in directory /pub/commercial/IMultimedia.

You can always get the latest update news or other selected download sites from:

<http://ourworld.compuserve.com/homepages/hani/imm.htm>

