# Internet VoiceChat 1.1 Help

Welcome to Internet VoiceChat!   IVC is a unique program which allows users with Internet (or any other TCP/IP network) connectivity to conduct live, two-way voice conversations anywhere in the world that has net access.   Amenities such as an answering machine and call screening are all included, yet IVC is amazingly easy to use.   Version 1.1 is just the beginning of what is planned for this program.   Internet VoiceChat is Shareware and is Copyright © 1994, Richard L. Ahrens.   Continued use after 30 days requires registration.   Please read the License Agreement for user license information.

IVC has been tested to work with Trumpet WinSock, Novell LAN WorkPlace for DOS, and PC/TCP 3.0. Since IVC uses only standard WinSock calls, it should be compatible with all vendors' implementations.

If you have a question which is unanswered after reading this help file, be sure to check the Frequently-Asked Questions (FAQ) file which came with IVC.   If you still have questions, feel free to contact IVC Tech Support.

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## System Requirements

To use IVC, you must have the following:

- WinSock 1.1

- Any Windows™-compatible sound card with microphone

- Network connectivity (e.g. Ethernet, SL/IP, PPP)

- A 386 processor or better; a 486 is preferred

Internet VoiceChat will work with SL/IP and PPP connections, albeit slower than with a direct connection. Due to the sizable amount of data that is transmitted, SL/IP users and PPP users can expect to wait longer between exchanges.   Voice quality will not be affected, however.

Compression technology to be introduced in future versions of IVC will reduce delays substantially.

SL/IP users whose IP addresses change each time they connect should click the About button to determine their calling address.

WinSock is a Windows programming interface which provides a common set of commands for all networking software.   If you have the file WINSOCK.DLL on your machine, then you have WinSock.   WinSock is often provided by your TCP/IP software vendor.

If you do not have WinSock, you should consider Peter Tattam's Trumpet WinSock, a shareware implementation of WinSock.   It is available from ftp.trumpet.com.au.

I'd like to take this opportunity to thank my beta testers, without whom Internet VoiceChat would not have been possible:

        Evan Robinson, Massachusetts Institute of Technology
        John Gottstein, University of Pennsylvania
        James Chen, University of Pennsylvania

Thanks a lot, guys!

*Note:* Please do **not** contact my beta testers regarding IVC.   All inquiries should be directed to me at: ivcsupp@aol.com.

During the months when school is in session (September through early May), I would like to VoiceChat with as many IVC users as possible!   Please send email to: **ahrens26@wharton.upenn.edu** so we can arrange a date and time.

# Getting Started

When running IVC for the first time, you must specify your user name.   Move the mouse pointer to the field marked **User name** in the **Calling Information** section.   Click the mouse on the old name, and enter a new name of your choice.   The user name may be your last name, your full name, your "handle," or any other moniker of your choice.   Your user name is used to identify you to parties you call.   Note that you will not be able to place a call until you have input a user name.

You should next proceed to the <u>Setup</u> screen.   Once this is completed, you are ready to place a call. Click on the **Call** field in the **Calling Information** section and enter the IP address of the party you wish to call.   (You cannot place a call to your own IP address.)

Next, click the **Call** button in the **Controls** section.   If the party you are calling is running IVC, the **Connect** and **Data Line** indicators will light up.   See <u>Talking With a Remote User</u> for information on what to do next.

If you are calling a particular IP address for the first time, it is automatically added to the drop-down quick-dialing list when you click **Call**.   You may optionally include a user name followed by the @ symbol before the IP address to serve as a reminder.   Instead of entering **xyz.com**, for example, you may enter **bob@xyz.com**.   All text prior to and including the @ symbol is ignored by IVC.

# Controls

The **Controls** section of the main IVC screen provides six buttons which perform the main functions.   For more information about a specific button, click on the appropriate topic below:

Call / Hangup

Setup

About

Fax

Help

Exit

## Known Bugs

Following is a list of bugs which are known to exist and are currently being resolved:

- On some systems, a call placed to a machine that is alive but not running IVC will erroneously cause the Connect lamp to light up, and the error will not be indicated.
  *Remedy:* Simply click "Hangup" if the full connection is not made within a reasonable time period.

- A similar problem occurs if a call is placed and the remote party is already talking with someone else.   *Remedy:* Same as above.

- Some WinSocks may not register remote hangups properly.   In this case, when the remote user hangs up, the local IVC will remain "connected."
  *Remedy:* Click "Hangup" when the conversation has ended.

- If a user reaches the Answering Machine and does not leave a message, IVC may not reset itself properly.   This is related to the above problem.

The following is not a bug but is relevant nonetheless:

- You may notice that at certain points, the Error lamp lights up, but everything seems to be working fine.   There is usually no need to worry about this condition.   Not every WinSock error is serious, and different implementations of WinSock generate error messages for different reasons.   In other words, ignore the light unless the program is not functioning.


*Bug reports should be sent to **ivcsupp@aol.com**.*

This button displays the help file you are reading now.   Alternatively, you may press the F1 key to bring up the help screen.

Clicking this button displays the about screen with copyright and version information.   Your calling address is also displayed.   This feature is particularly useful for SL/IP users whose IP addresses change each time they connect.

# Registering Internet VoiceChat

Internet VoiceChat is a shareware product.   You are licensed to use IVC on an evaluation basis for 30 days.   After that time, you must either register the program or discontinue its use.

Registration of Version 1.1 costs **only $25** for individual users.   (Site licenses / distribution licenses are available for corporations, academic institutions, and government agencies.   Please contact the author for more information.)

When you register, you receive the following benefits:

- The "Shareware Notice" screen seen at startup is no longer displayed.

- The answering machine is completely enabled.

- You will (with your permission) be part of the Internet VoiceChat Phone Book, a listing of IVC users around the world in Windows Help format.

- You will be supporting future versions of IVC.   Many exciting new features are planned.


**To register, send your name, street address, email address, and a check or money order for US $25 to:**

>  **Richard L. Ahrens**
>  **7 Omega Ct.**
>  **Middletown, NJ   07748**
>
>  email: ivcsupp@aol.com


A lot of time and effort went into producing Internet VoiceChat.   If you find it useful, please register and help support this product!

# Planned Enhancements

Many enhancements are planned for Version 2.0 of Internet VoiceChat.   Some of them are listed here:

- *On-the-fly compression* - voice data is automatically compressed/decompressed to reduce data transmission time.

- *Voice actuation* - instead of clicking to indicate beginning of speech, IVC senses when user is talking and automatically starts recording.   Recording stops when user stops talking.

- *Fax machine metaphor* - send graphics and pictures to another IVC user.

- *A complete whiteboarding system*

- *PC Speaker support* - no sound card required!

- *IVCameo* - exchanges still digitized pictures of users upon connect.

- *Variable sampling rates*

- *Improved help file* - with graphics from the program, etc.

***But none of these enhancements can be made without user support and registration!***   If you use IVC, please register it!   To find out how, see Registering IVC.

Clicking **Clear** clears the contents of the **Caller History** window.

# Exit Button

The **Exit** button disconnects a connection if one exists, and unloads Internet VoiceChat from memory.

# Caller History

Internet VoiceChat keeps a list of all users who have made incoming calls since the program was started. When a user calls you, the time of day, his or her user ID, and his or her hostname are added to the **Caller History** window.   This provides a convenient record of all of your incoming calls.   (Outgoing calls are not logged.)

You may double-click on any entry in the Caller History window, and IVC will automatically initiate a call to that person.

Use the scroll bar to cycle through the list of callers.   To reset the contents of this window, press the small Clear button.

# Call / Hangup Button

The **Call** button is used to initiate a call; the **Hangup** button is used to terminate one.   Once a connection is made, the **Call** button is automatically replaced by **Hangup**.

As soon as either **Hangup** is clicked, or you are hung up on by the remote user, IVC resumes listening for incoming calls.

To place a call, enter the remote IP address in the **Call** field of the **Calling Information** section.   (Note that you cannot call your own IP address.)   If you are calling a particular IP address for the first time, it is automatically added to the drop-down quick-dialing list when you click **Call**.   You may optionally include a user name followed by the @ symbol before the IP address to serve as a reminder.   Instead of entering **xyz.com**, for example, you may enter **bob@xyz.com**.   All text prior to and including the @ symbol is ignored by IVC.

As soon as both the **Connect** and **Data Line** indicators are lit, a connection has been established.   See Talking With a Remote User for information on what to do next.

# Configuring IVC   (Setup Button)

This button brings up IVC's configuration screen.   First-time should use Setup before making or receiving any calls.

Set the **Call Screen Timeout** field to the number of seconds you want IVC to wait before defaulting to the specified option when <u>Call Screen</u> is active.   This number may only be two digits, and defaults to 15 seconds.

Immediately below Call Screen Timeout are two selections, **Answering Machine** and **Reject**.   Choose Answering Machine to instruct Call Screen to activate the answering machine after the specified number of seconds.   Choose Reject to force Call Screen to disconnect if action is not taken by the user after the specified number of seconds.   *Note:* In the unregistered version of Internet VoiceChat, the Answering Machine is not available, and thus will be dimmed.

The **Messages Directory**, located under the **Paths** section, tells IVC in what directory to store your outgoing answering machine message and incoming messages.   Ideally, it should be the directory that IVC resides in.

For maximum performance, the **Working Directory** should be set to a RAM disk with at least 700k of free space.   If this is not an option for you, a directory such as C:\TEMP is suitable.

Click **Done** when you are finished modifying Setup options.

The button marked **WinSock** provides a useful information screen on your particular implementation of WinSock.

This feature is not yet implemented.

# Talking With a Remote User

Talking with a remote user is quite simple, and actually very similar to having a phone conversation, or using a CB radio.

Once you are <u>connected</u>, the record and stop buttons will light up on the audio controls of the **Voice System**.   To say something to the remote user, wait for your traffic light to turn green, press the Record button, and talk into the microphone.   When you are done talking, press the Stop button.   The light will turn red, and the **Status** bar will indicate the transmission progress of your voice data.   After the data is transmitted, the Status bar will display a message explaining that the remote user is listening.   Following that, your traffic light turns green again.   Usually the remote user will respond at this point.

When the remote user is recording his or her voice, your traffic light will turn red and your audio controls will be temporarily disabled.   The Status bar will indicate that the remote is recording.   Soon after, you will receive the remote's voice data (progress will be monitored in the Status bar).

Each user is allowed to record up to a minute's worth of contiguous speech.   The bar underneath the audio controls monitors the amount of time remaining.   If a minute expires and the user has not pressed Stop, recording automatically terminates and the voice data is transmitted up to that point.

Internet VoiceChat does not transmit voice data as it is recorded; rather, the entire recording is transmitted in one large "chunk" and then played back all at once.   This is done for several reasons, however the most important one is that transmission speeds--critical to continuous voice playback--cannot be predicted ahead of time, or expected to be held constant.

The amount of time required to transmit a block of speech will vary by network, and by how long a sample is recorded.   On a high-speed 10Mbit/second local network, you will barely notice the transmission. However, long-distance connections to slower networks will of course slow transmission times. Compression algorithms to be introduced in the next version of IVC should help to alleviate any delays.

*If you connect to an IVC Answering Machine*, you will hear the remote user's answering machine message.   To leave a message, press the Record button as usual and say your message.   Once you press stop, the data is transmitted, and you are automatically disconnected.   If you do not wish to leave a message, just press the **Hangup** button.

## VoiceChat Mode

This is the default operating mode for Internet VoiceChat.   When **VoiceChat** is selected, IVC will automatically listen for incoming calls as soon as it is started up.   However, IVC may be minimized while it is listening, so the user can work with other programs.

If an incoming call is received in VoiceChat mode, IVC automatically accepts the call, restores itself if it was minimized, and displays the name of the caller in the title bar.   The users may then begin their conversation.

Once the call is terminated, IVC returns to its listening mode.   Outgoing calls may also be placed by using the Call button.

# Call Screen Mode

**Call Screen** mode is similar to <u>VoiceChat</u> mode, except that when an incoming call is received, a small window containing the incoming caller's name is displayed.   The user is given the choice of accepting the call, rejecting it, or sending it to the answering machine.   If a selection is not made within the time specified in the <u>Setup</u> screen, Call Screen defaults to the specified mode, either Reject or <u>Answering Machine</u>.

# Answering Machine Mode

This is one of the most exciting features of Internet VoiceChat, but it is available only in the registered version.   (The three Answering Machine controls are still active in the unregistered version, but Answering Machine mode cannot be selected.)   The Answering Machine allows you to leave IVC running without worrying about missing calls.   If the Answering Machine is active, incoming callers are greeted with your pre-recorded message, and then may leave you a voice message.

***Before using Answering Machine mode, be sure to record your announcement!***   Just press the **Annc** button located in the bottom right corner of the screen, and record your outgoing message.   Press the Stop button when you have finished

If you'd like to make a more customized answering machine message with patched-in sound effects, etc., click here.

You can always tell at a glance if you have messages waiting.   Simply look at the digital indicator immediately to the left of the **Msgs** button.   To replay your messages, click the **Msgs** button.   The digital display will indicate which message is being played.

To delete messages after you have listened to them, press the **Kill** button.

The message file IVC looks for is called MESSAGE.WAV and is stored in the Messages Directory specified in the **Setup** screen.   Simply rename your custom message to MESSAGE.WAV and place it in the Messages Directory.

# Using IVC with Trumpet WinSock

IVC only works with Trumpet WinSock 2.0B and higher.   If you are using a lower version, you must FTP the new Trumpet from ftp.trumpet.com.au: pub/winsock/twsk20b.zip

# Using IVC with PC/TCP 3.0

There are two steps you need to take to make IVC work with PC/TCP 3.0:

a) IVC does not work with the original kernel that ships with PC/TCP 3.0.   You must obtain a special kernel patch from FTP Software.   Send email to support@ftp.com requesting the PC/TCP 3.0 kernel with "slow start" disabled.   (This new kernel is compatible with all existing applications.)

b) Edit your PCTCP.INI file.   Find the `[pctcp kernel]` section and set `large packets = 16`  (or more)

If you are anxious to try IVC in the meantime, FTP to ftp.trumpet.com.au, and get pub/winsock/twsk20b.zip (Trumpet WinSock 2.0B).

# Internet VoiceChat 1.1 License Agreement   (Unregistered Version)

You are permitted to use this unregistered shareware version of Internet VoiceChat (IVC) free of charge as a single user on an evaluation basis for a period of up to thirty days.   After such period expires, you must either discontinue use of the product and remove all copies from your system, or register the software.

**You may not distribute IVC by itself or with any other product, nor include IVC in any collection of software (excluding public anonymous FTP servers and bulletin board systems) for profit or otherwise, without the express written consent of the author, Richard L. Ahrens.**

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*Contact information:*

The author of IVC may be reached via the following address for support questions and general information:
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Middletown, NJ   07748     USA
email: ivcsupp@aol.com

**IVC Tech Support**

To obtain technical support on Internet VoiceChat, send email to **ivcsupp@aol.com**.   This account is checked approximately once a week, so please allow sufficient time for a response.

If you would rather write directly to the author, the address is:

            Richard L. Ahrens
            7 Omega Ct.
            Middletown, NJ   07748    USA