N4EJ's Application of Ventrilo

12/15/17 Sam Kennedy

Just what is Ventrilo? Ventrilo is a software system that provides Voice-Over-Internet (VOIP) capability. Ventrilo was designed to be used by computer gamers so they can talk to each other while playing various games on the internet. To use it requires a computer or smart phone and a solid internet connection. While headphones give the best performance the computer's internal speaker and microphone provide adequate performance. Up to eight people can use the system and they can be located anywhere on earth where an internet connection is available. The best feature of Ventrilo is that it is free! Additional information and software downloads are available at http://www.ventrilo.com/ .

Figure 1. Paul, N4EJ and wife Barbara, WD4HAH.

Paul and wife Barbara are regular members of the Joker's net**.** www.qsl.net/kt4qw/smithmount.htm **. The Jokers net is on 75M (3934 kHz) each** week day morning at 7:40AM and has operated since 1984. As a result many of our members are in retirement homes and no longer have access to a HF radio installation. Paul, being a very generous and creative person, decided to set up a transceiver at his home that would provide a connection to the internet and allow those who desired to continue to participate.

Paul, recognizing that Ventrilo was probably the easiest way to provide the remoting capability, engineered an internet-transceiver inter-connection unit

(cable). He used an IC706Mk2G transceiver with an aerial automatic antenna tuner and a long wire antenna. It produces a remarkably strong signal for 100W. As a result, those operators having internet connectivity can communicate every morning with their old friends. It's also handy for those members while traveling. Most hotels, motels and RV parks provide WIFI connection for their guests.

In simple terms, Ventrilo provides a long extension cord from Paul's transceiver speaker and microphone cable to the user's computer or smartphone. Anyone, whether licensed or not, can use this connection providing they have the sign-on credentials. It is therefore essential that a duly licensed control operator monitor the circuit at all times and be capable of immediately disconnecting should any FCC rule violation occur. This is the same as with radio repeater operations.

The free Ventrilo system is limited to 8 client connections. It also requires one virtual server which can be set up on the same computer as one of the 8 clients. Keeping the audio levels proper is a challenge. Latency (delay) of digital signals can become a problem, especially if the internet connection speed is not adequate. Sometime this causes operator confusion.

Ventrilo does not have a remote keying circuit, so Paul set the transceiver to operate in VOX mode. When operating, since there is no side tone, you just have to start talking and keep it going to avoid the VOX dropping out. It takes a while for a new Ventrilo operator to get the hang of it but it becomes easy after a while. The quality of the audio is consistent with ham radio standards and seems to sound differently with each user. The regular radio users must be careful not to key up too rapidly or the first word or so will be missed by the Ventrilo users.
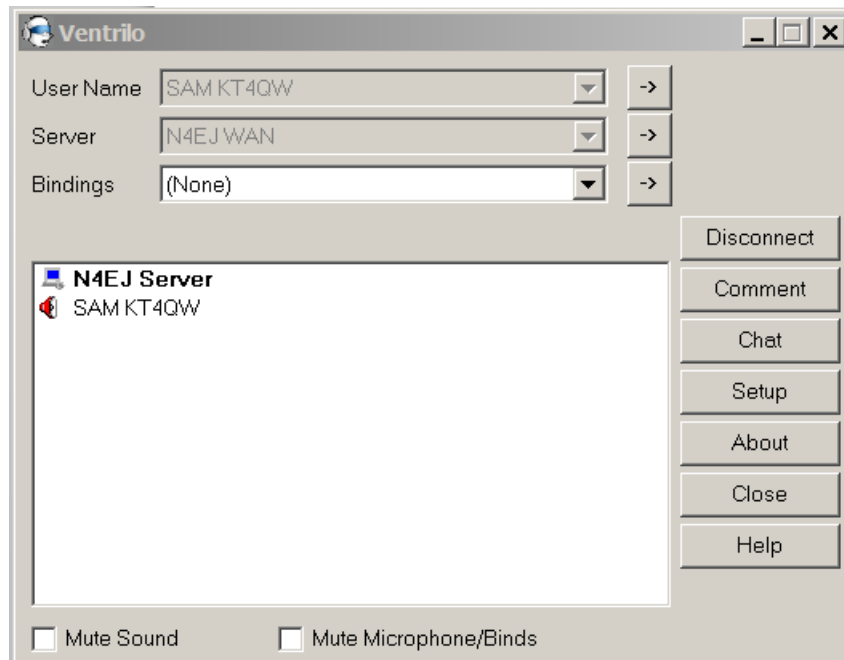
Figure 2. Ventrilo Screen on Computer

Figure 2, illustrates what you see on your computer. This is the approximate size of the screen. When you transmit, the speaker icon turns green and when you press the assigned transmit key. You can set up any key for the keying circuit but usually the left or right ctrl key works best. I prefer to use the left ctrl key. Note that both the audio and microphone have a mute capability. Just click on either or both as desired. However you can disable your station without realizing that you have done so. Any experienced user can easily help you do the required setup. You can do it on your own but sometimes it's confusing. Gamer's and Ham's technical language is somewhat different.

iPad/iPhone users can use an app called "Ventastic" to access Vintrilo. The Ventastic app provides a similar but different interface experience for the user. Once connected to the server (Paul's server in this case), the user sees other users as well as Paul's server. All users represented by name and typically their Amateur call sign. To talk on Paul's radio transceiver you press and hold the large red button as shown in Figure 3. The received audio is delivered to the iPad's speaker. The microphone is located. It is beyond the scope of this article to provide detail operating procedures. The location of the microphone on the iPad/iPhone depends on the model of the unit. It is important to locate it and talk directly in to it for best results.
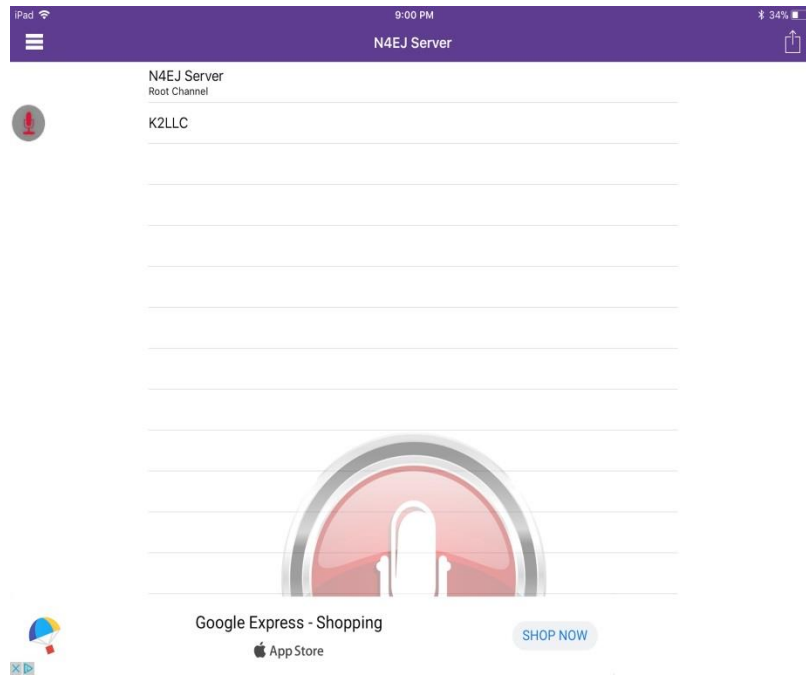
Figure 3. View of iPad Screen… Showing Press-To-Talk Button and the general screen appearance.

Apps are also available for Android phone systems. One of the apps is Ventriloid. Ventrilo is a popular VOIP system.

A cable for interconnecting the radio transceiver to the computer is required. Data for fabrication of this cable will be included later.

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