

Quickstart Guide
Teamspeak 2 VoIP communications for Flex-Radio-Friends
Windows Version

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Note at the beginning!

Teamspeak 2 client and Power SDR cannot be used at the same on the same computer. There may be a way to do it, however, each uses the same or overlapping soundcard resources.

Overview:

Teamspeak is a Voice over Internet Protocol (VoIP) conferencing program, which allows high quality voice conferencing between users. It was developed for gamers playing action games on the Internet so they could communicate with each other on teams to develop strategy. It is optimized for low latency and high compression. It requires a Teamspeak 2 client program running on your computer, as well as a server where you and other users connect to have audio conferences. The server side called Flex-Radio-Friends, supporting up to 50 simultaneous users has been provided 24/7/365. It has been proven ideal for users of the FlexRadio Systems SDR-1000 radio, to communicate via voice worldwide. The quality, whether using dial-up Internet connection or HS has been superb and there have been many interesting conversations. The service is being provided free of charge by Eric – AA4SW, with no financial association, or other attachment to FlexRadio Systems and is purely offered to advance SDR and communications state of the art. It is open to anyone interested in SDR. Feel free to share this information and forum password to anyone interested in the subject at any level, with any affiliation.

Getting Started:

You will need to download the current client program for Windows or Linux. I have not tried the Linux version, however, there are folks using the Linux version successfully. You can obtain the client from:

<http://www.goteamspeak.com/downloads.php>

The hardware requirements for running the client are:

Windows Client - Minimum Requirements

- Windows 98/ME/NT4/2000/XP
- Pentium 166 MHZ CPU
- 64 Megabytes of RAM
- 6 Megabytes of hard disk space
- DirectX 8.1 (available at <http://www.microsoft.com/directx>)
- An Internet connection or LAN
- A full-duplex soundcard
- A microphone (if you want to be able to talk, not just listen)

Linux Client - Minimum Requirements

- Distribution of Linux
- Pentium 166 MHz
- 64 Megabytes of RAM
- 10 Megabytes of hard disk space
- An X server (like XFree86)
- An Internet connection or LAN
- A full-duplex soundcard
- A microphone (if you want to be able to talk, not just listen)

I suggest getting an inexpensive PC quality boomset microphone headset which can be purchased inexpensively from Radio Shack, office supply stores, and most department stores. Prices range from 10 to 40 dollars American. On one system I am using the Plantronics USB boomset, which has its own integrated sound card. You can use almost any PC microphone and speakers or headset. You can also use the mic and sound system you use with your SDR provided you set up the right connection information in the mixer, and the connections are made directly to the soundcard of choice.

After downloading the Client. Double click the installer exe and install the client. Accept the defaults which it uses. Obviously, on XP or 2000 systems you will need Administrative privileges in the account from which you are installing.

(Linux users, would like to put info here for Linux if you can send screenshots etc.)

After installing the program double click on the Teamspeak 2 shortcut. You will be presented with the following screen:

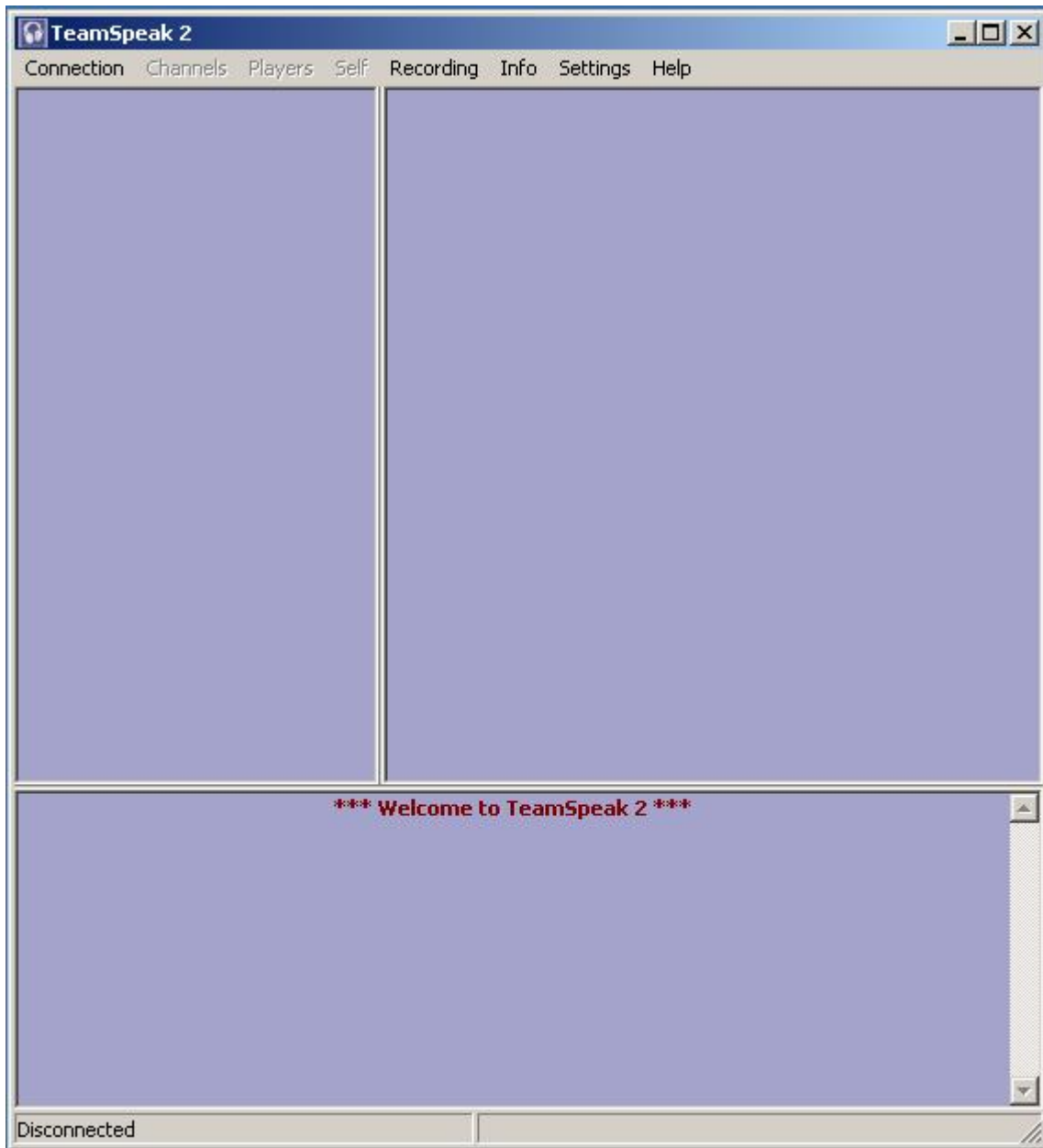


Fig 1

The first thing we want to do is configure some initial settings. So Click Settings>Sound Input/Output Settings:



Fig – 2

1. Leave the Output Volume in its default setting.
2. Initially the default is set to the “Voice Activation” radio button. Change this setting to “Push to talk” and click set. A pop-up box will request that you press a key to use for push to talk. Press the Left or Right Ctrl keys or some other non-printing key or button. You can also use a button on the mouse or Griffin Power mate. The key you choose is active all the time that Teamspeak is running. You can be doing other things on the computer during a conference, so choose a key which normally does not interact with the program in the foreground.
3. You can locally test your audio by clicking on activate local test mode. There are many Codecs; however, the codec used by the client is set by the server, so this is just for testing and troubleshooting locally. If you don’t hear yourself in test mode at this point, don’t worry about it close this window and proceed to the next step.
4. Refer to Fig – 1 and Click Settings>Options



Fig – 3 Options Menu

1. In this menu many options for the use of Teamspeak can be set. At this point we only want to choose the Input (The device where the Microphone is connected to Mic In on the card you wish to use) and the Output (Speakers or earphone connected).
2. Close this box, and minimize the Teamspeak Client window (Fig-1) to the system tray.
3. Insure that a Mic is connected into the MicIn on the device selected, and speakers or headphones are connected to the output device selected.
4. Click Start> Control>Panel>Sounds and Audio Devices. (Or equivalent in other operating systems.)



Fig 4 – Windows Sound Control Panel

1. Select the Audio Tab and insure that the default device points to the device you have selected in Teamspeak
2. Select the Sound Recording device where your Microphone is connected.
3. Click on the Volume button of the Sound Recording device.



Fig – 5 Mixer Control

1. Insure that in the lower pane that the device indicated is the device you have for the microphone.
2. Insure that Microphone is selected.
3. You may wish to just minimize this box so you can set your microphone volume when speaking in Teamspeak. This is unnecessary if you have the mixer in the system tray near the clock (speaker icon).
4. You can now maximize or restart Teamspeak Client and do a local test as in fig – 2 above, or proceed to the next step to make the connection.
5. Refer to Fig-1 and click on Connection>Connect

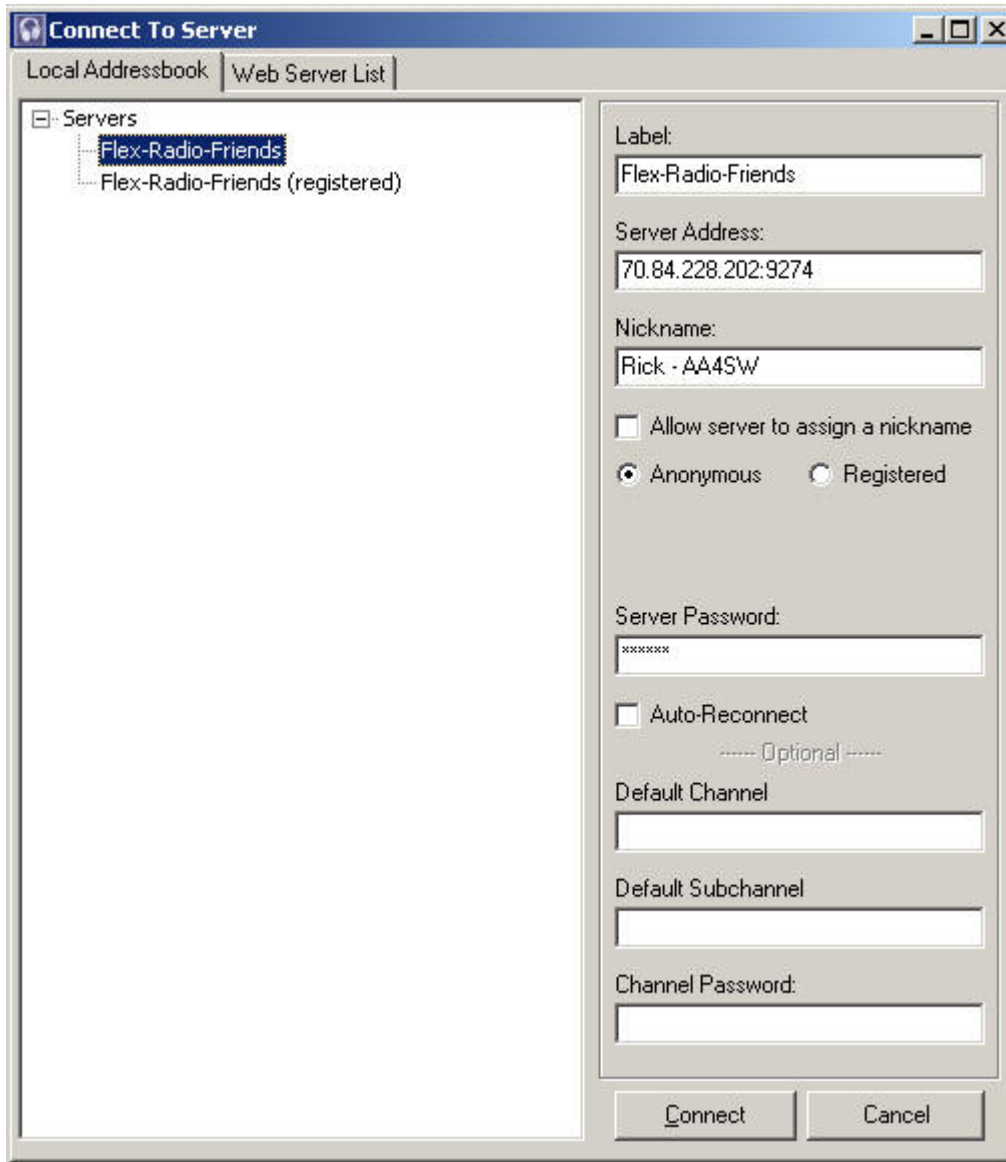


Fig – 6

1. When this screen pops up initially, there will be no servers listed in the servers pane. Enter the information as it is shown here:
2. Label (Suggest Flex-Radio-Friends) Note: The second entry is my registered entry.
3. Un-check “Allow Server to assign nickname and for Nickname enter:

Hams:	Firstname – Callsign
Non-hams:	Firstname – Location (ie. Texas, Perth, NYC)
4. In the Server Password field enter Flex4U (CaSe sensitive), and click Connect.
5. In the future, if there are other registered channels you can chose a channel to log into, and even create different addressbook entries set up for other channels.
6. Also, System administrators can register you with a standard login name, but this is not necessary for use of the Forum as an unregistered user.



Congratulations you are connected! Now try your microphone by pressing the PTT key you set up in the first step, (assuming you see other users in the channel.) You should see your identity led go light green from dark green.

The connection screen is pretty self explanatory but a few comments are in order.

We have six people from around the world in this screenshot. Note in the bottom bar you are RickHS – AA4SW. (Don't laugh, it gets confusing!)

Ken N9VV is talking as shown by the light green led color

RickR – AA4SW has icon showing he is away from the computer, but logged into the server. There are other little images depending on mic mute, and speaker mute. Being away from the computer does not mute the speakers or mic so you can show you are

away, but listening. You can access this status for yourself from the “Self” settings in the Menu Bar.

Edson 7N4NCL in Japan is highlighted and in the right pane, gives information about the user. These are not particularly informative, but give System information and user permissions.

The lower pane gives an indication of who has joined and who has left and shows another feature; Users can send Text messages to each other. As you can see RickR has sent a private message to Edson inquiring if he can hear in the channel. You can right click on a user in the channel and “send a text message to player” from a pop-up. This is extremely useful in troubleshooting a connection. This is a private communication and is not seen by every one of the users in the current forum in the lower pane.

That’s ALL There is to it! Let’s CHAT! Solve problems.

Known Bugs and other issues:

If Teamspeak Client is running on your computer and you start it again from the shortcut you will not be able to minimize the Teamspeak Window. Shutdown and restart of the TS-2 client and reconnect is the only solution. This does not seem to affect anything else running in XP.

‘Hard’ firewalls where all TCP/UDP ports are blocked, such as from corporations with these devices will block UDP port 9274, 8767 on other servers. Normally Zone Alarm, Symantec Client Firewall, Windows XP firewall and local Internet routers like Linksys will not block this UDP port and we have not experienced any problems with Firewalls to date.

Acknowledgements:

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All of the Flex Radio forum contributors who have provide hundreds of hours of enjoyable reading and links to explore! Viva an active human brain!

AA4SW