Here are brief instructions on how to use the FSX shared cockpit feature in Flight Simulator. These are the necessary steps to use the Cockpit Sharing feature in FSX with Finn.

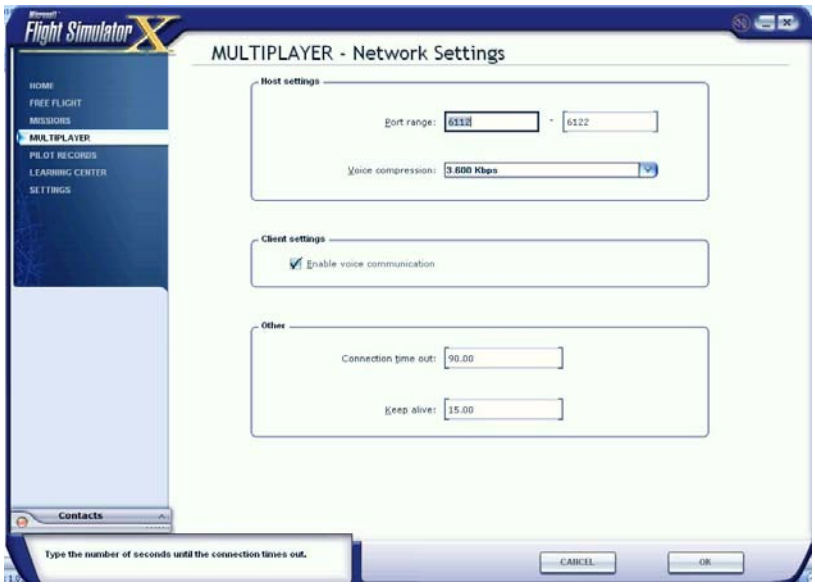
Before Starting

Always place your aircraft on the apron, or, if available, outside the Club's premises (Gloucestershire or Biggin Hill. Save a Flight at this position, with a "cold dark" cockpit. That means engine stopped, fuel off, magnetos off, radios and master switch off. This is realistic and the only safe way to leave an aircraft.

Setting up the Host (Captain) Side

After FSX starts, select **Multiplayer** from the main menu. This takes you to the "MULTIPLAYER – Sign In" screen. From this screen, select Local network (LAN).

It is prudent to check the Network Settings screen before proceeding, even if you only have one computer. Click on the Network settings button on the opening screen.



By far the most frustrating element of multiplayer flight simming is the inability to connect to the other pilot. Hours can be wasted dabbling in "comms" issues; an area of computing in which few of us are expert. So it is worth diverting from our main task for a moment.

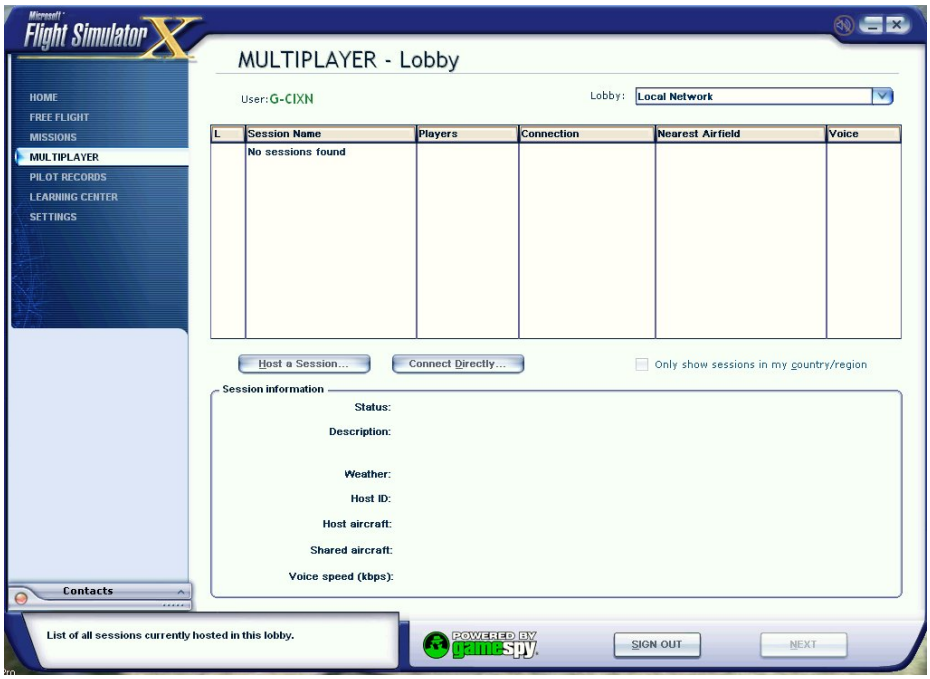
You need to check the port settings on the Network Settings page and make sure that any firewall you are operating, hardware or software, will "forward" those ports, i.e. allow data from the other pilot to access your computer through the opened ports. To do this, you create a set of rules for the router to follow. The FSX default ports are 6112 to 6122 inclusive and there is no reason to change these unless you have another application which uses any of these ports.

Service	Port Range	LAN Computer	Action	WAN Users	Log
FSX	6112-6122	192.168.0.2	Allow Always	Any	Always

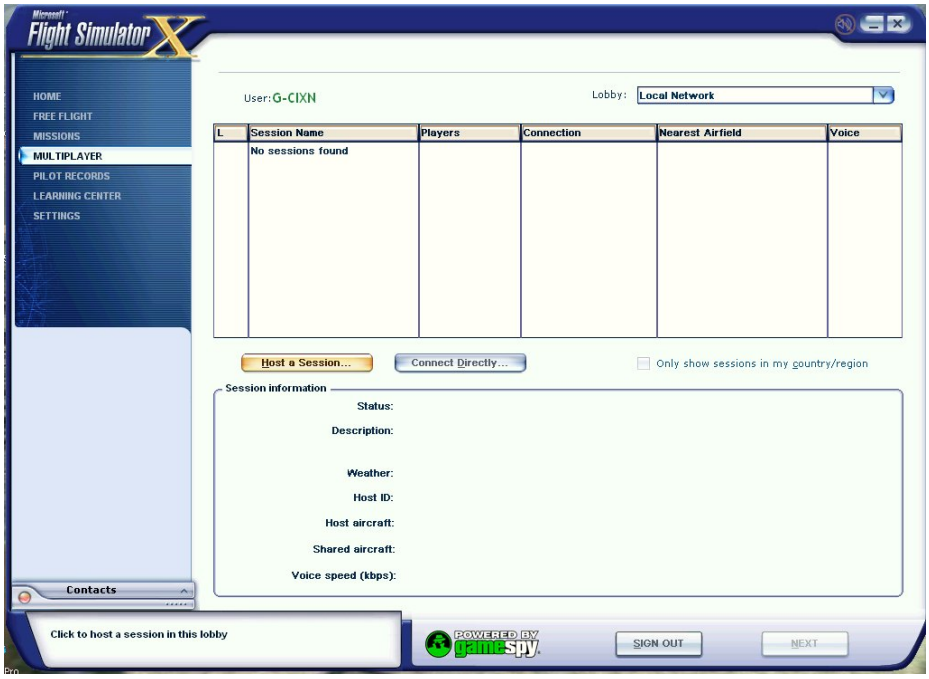
A typical router port forwarding rule for FSX is shown above. Note that the ports have to be forwarded somewhere. That somewhere is the computer running flight simulator, and the router needs that computer's internal IP address (shown above as "LAN server"). These are almost always of the form 192.168.0.X on home networks, where X is unique to each computer on the network.

You may have other computers on a network, so it is important to get it right otherwise the router will try and send the other pilot's data to a computer on your network which is not running Flight Simulator. If you open a Command Prompt window from the Windows Accessories menu, and type in **ipconfig** and **<Return>** the resultant text output will show the internal IP address of the computer from which you are typing.

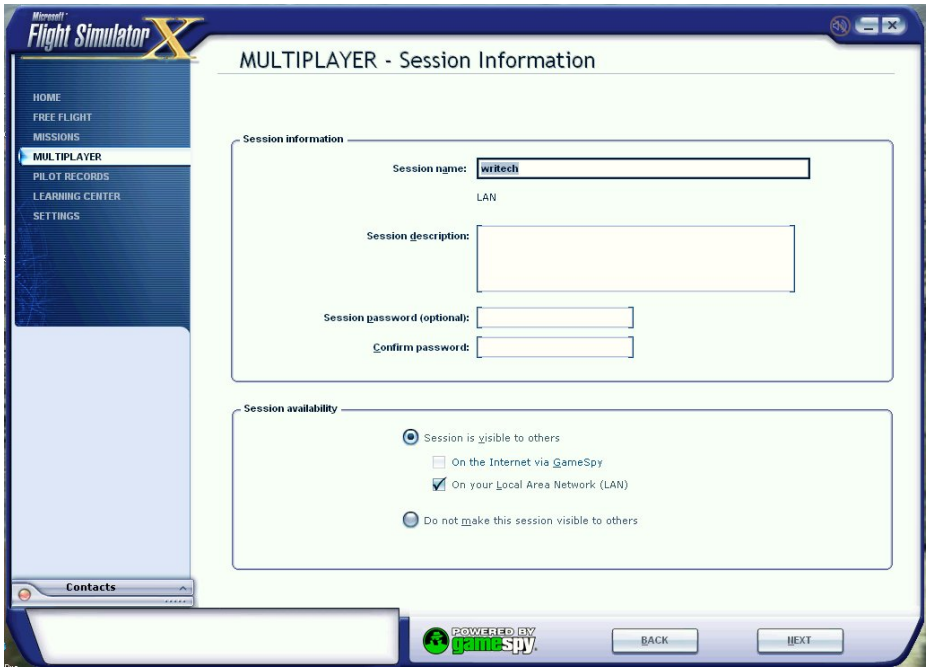
Moving back to Flight Simulator, click on **OK** in the Networks Settings screen, then back at the opening screen, on the **Sign In** button. This takes you to the Multiplayer Lobby screen.



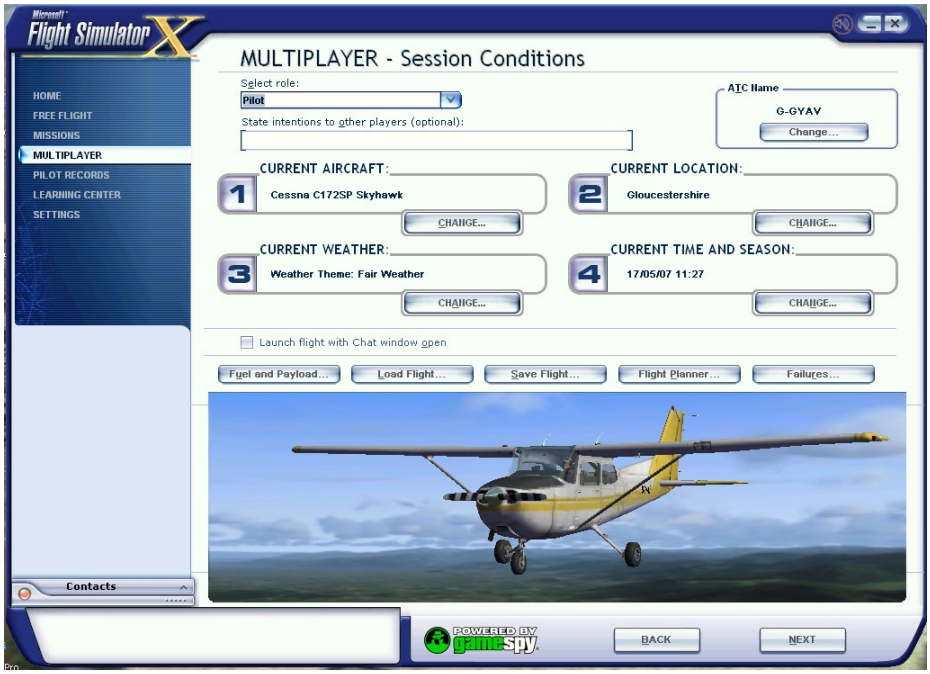
On this screen, click on **Host a Session**. This takes you to the "Multiplayer – Session Information" screen.



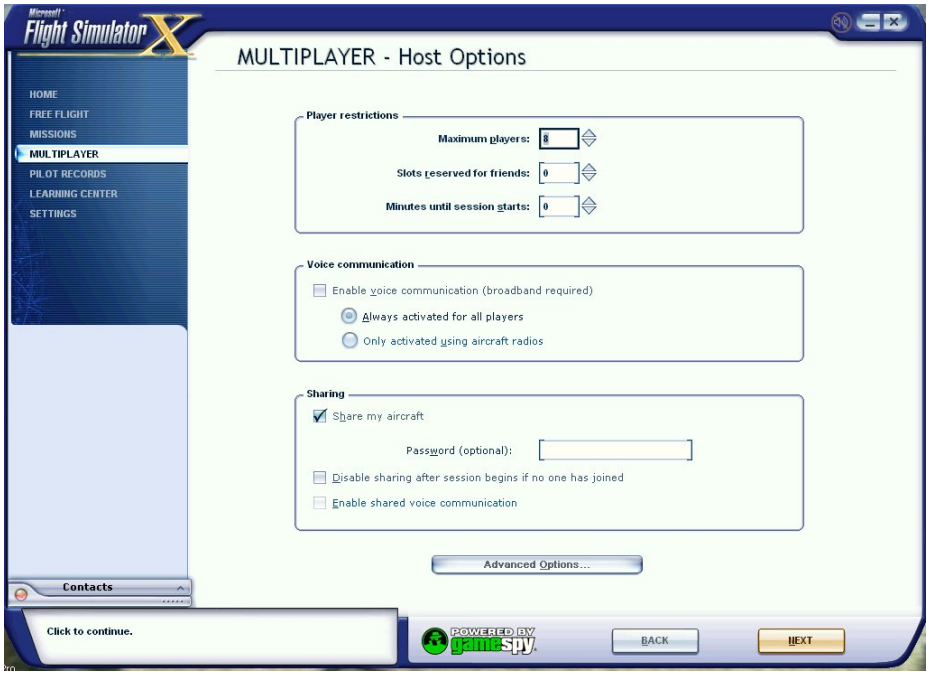
On the "MULTIPLAYER – Session Information" screen enter a session name and any other special options you prefer.



Click on **Next**. This takes you to the "MULTIPLAYER – Session Conditions" screen. Here, you setup your aircraft, location and other conditions.



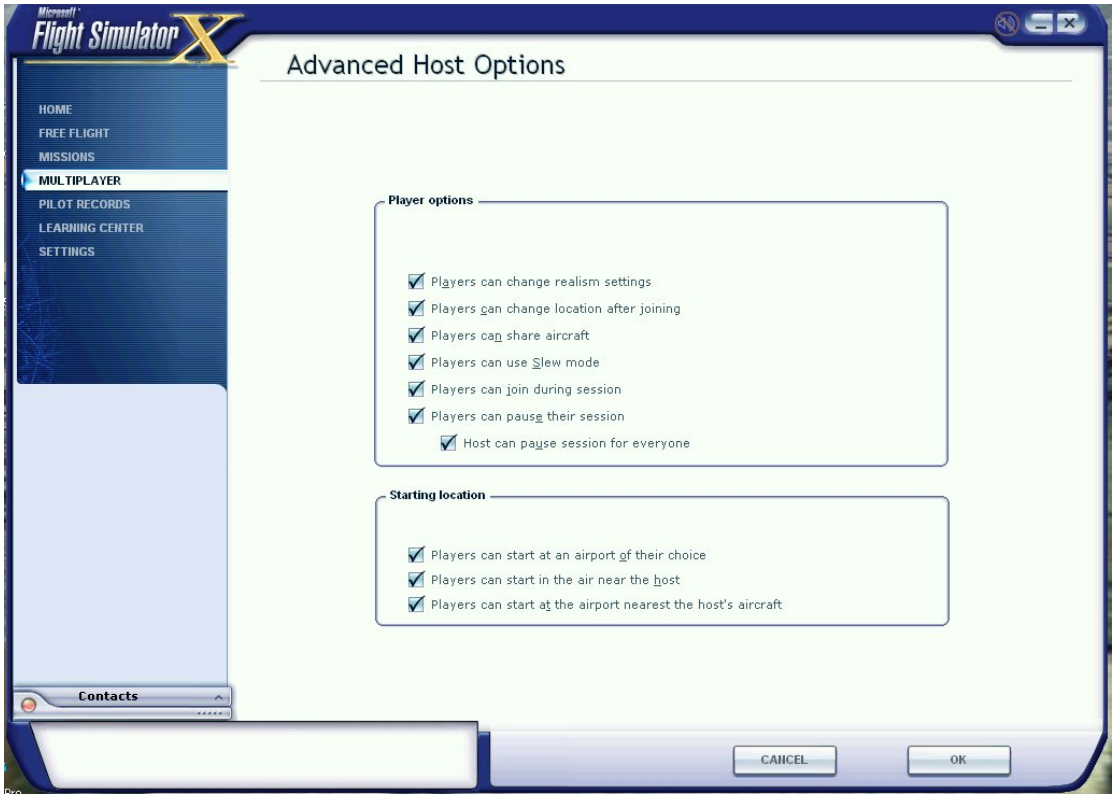
Note: There's a bug in FSX so that when you start the session, it will always place you on what Microsoft decides is the active runway. You **must** taxi to a safe parking area before connecting to VATSIM.



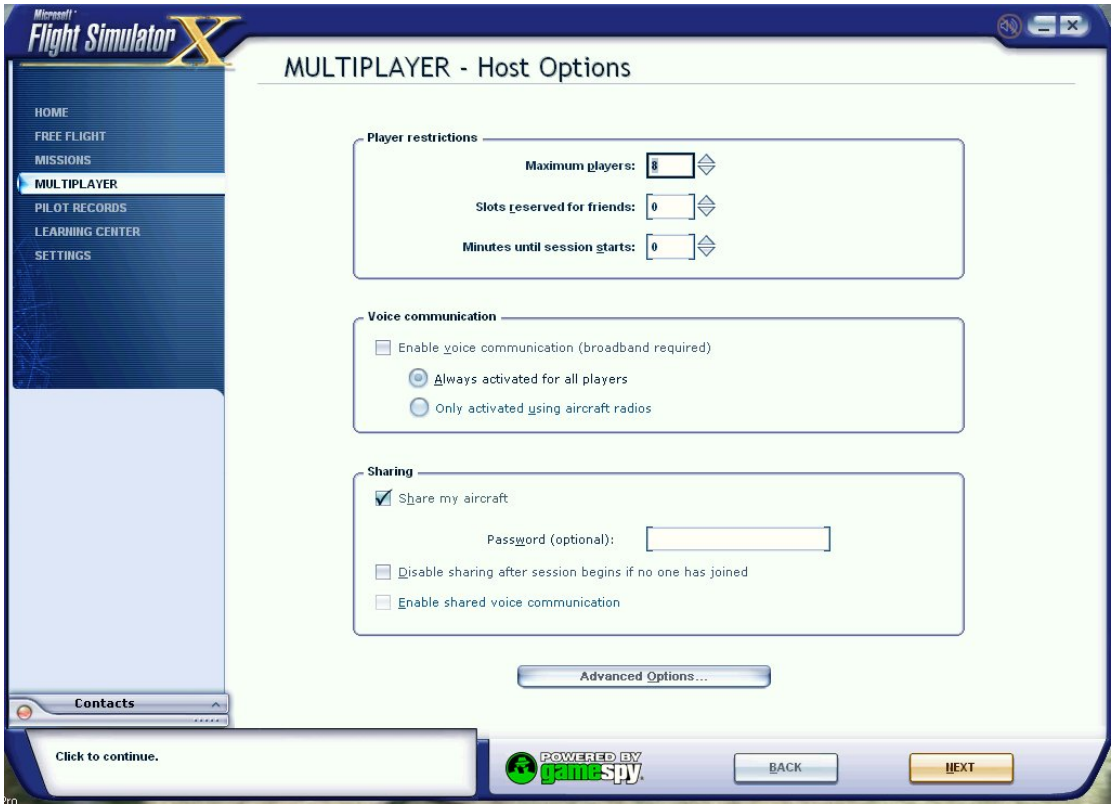
If you have broadband and want to use voice communications tick the "Enable Voice Communication" box. If this option is selected, it replaces the Club TeamSpeak service, but not Vatsim ATC. Because you are going to connect to Vatsim, also click the **upper** of the two radio buttons. This selects the voice system to be "always on", like Skype, and no PTT button is required.

Click on **Next**. This takes you to the "MULTIPLAYER – Host Options" menu. Choose your other preferences. Be sure to put a check mark in "Share my aircraft".

Click on the **Advanced Options** button also and make sure the appropriate boxes are ticked.

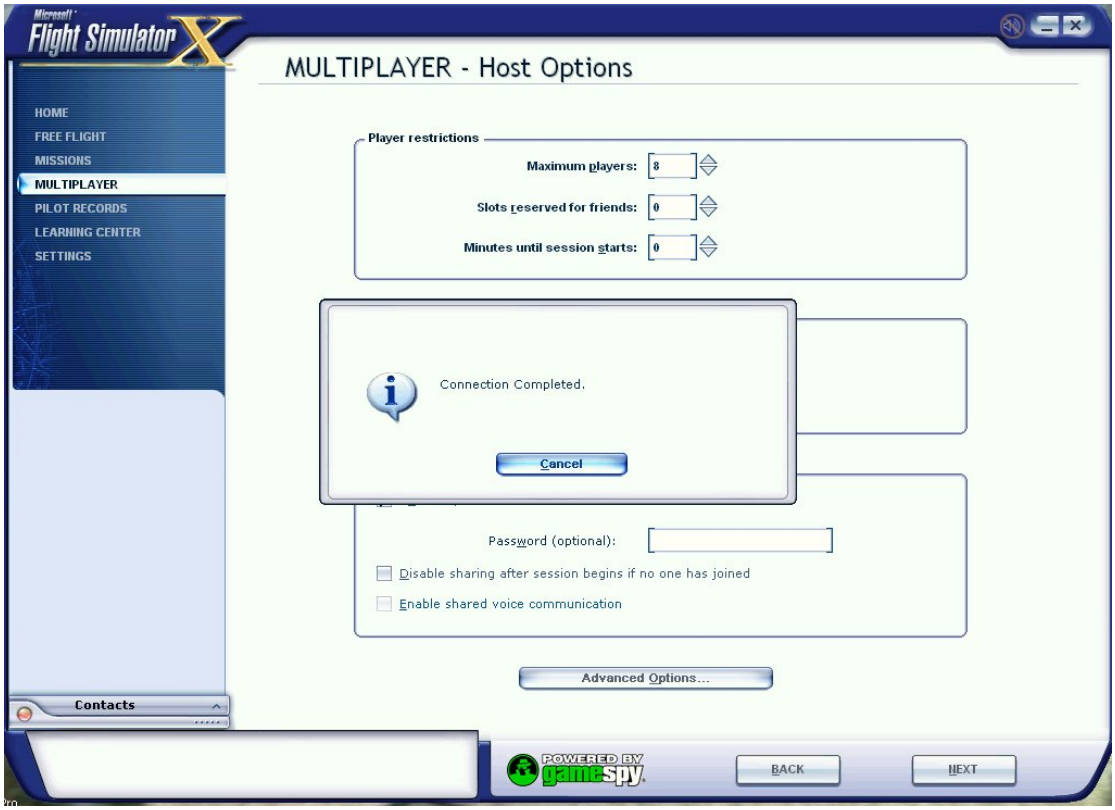


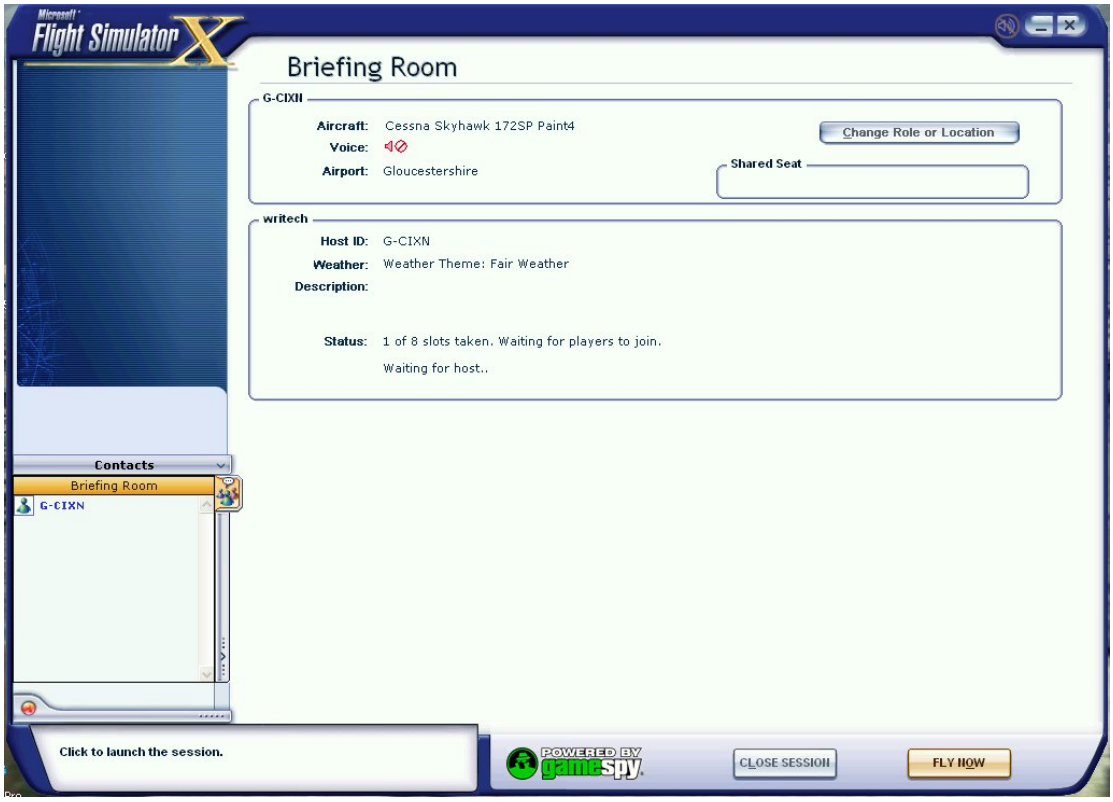
Click OK on the **Advanced Host Options** screen to return to the Host Options Screen.



Click on **Next**.

A **Connection Completed** window will appear for about 4 seconds, after which the "Briefing Room" screen is displayed."





Click on **FLY NOW.** This will take you to the flight. Your plane will be on the active runway (a Microsoft Bug). This is a non-no in VATSIM, so you'll have to taxi to the apron before you connect to VATSIM.

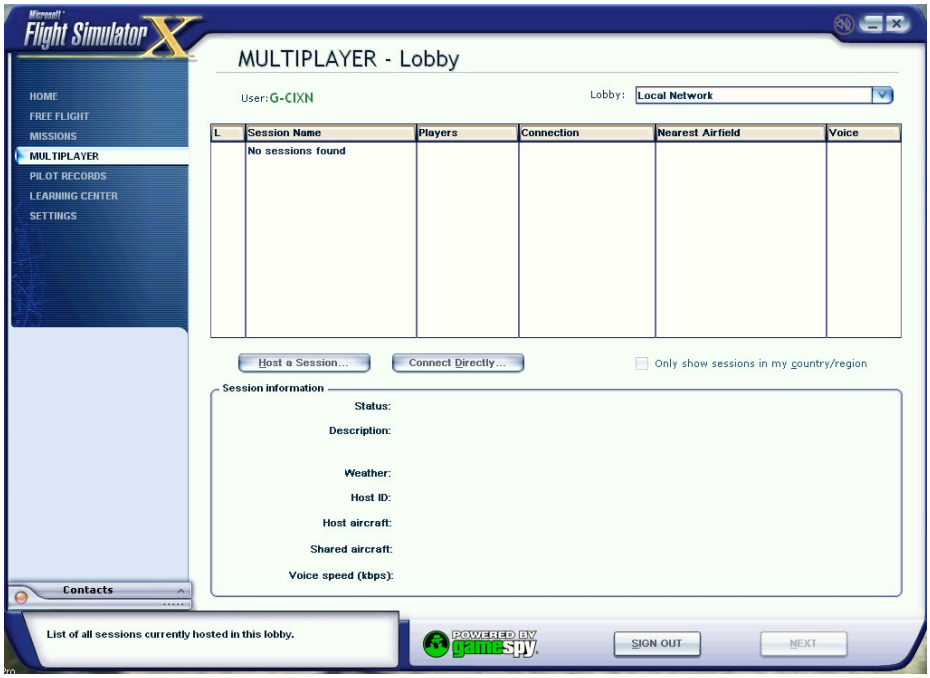
Note that once a multiplayer session is set up, you may not be able to change time and season or aircraft; unless you have ticked the appropriate boxes in the "Advanced Options" screen (see above).

Finally, find your external IP address and pass it to the pilot you want to join your session, via TeamSpeak.

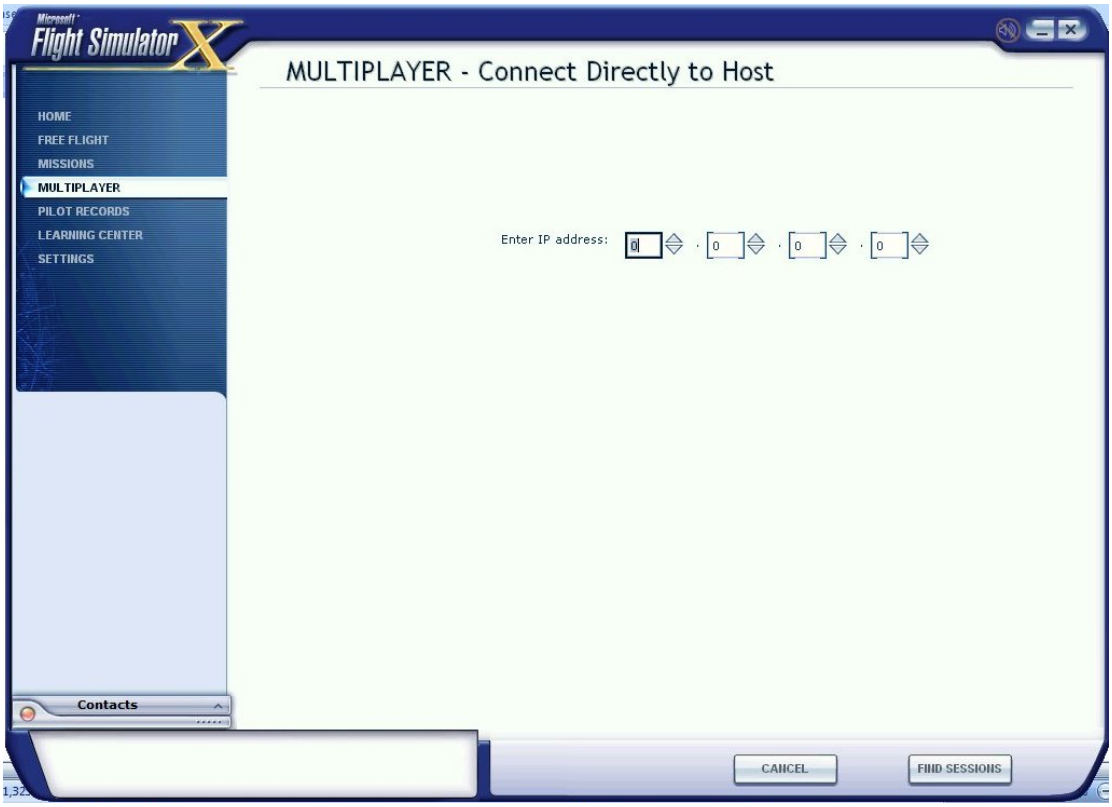
Setting up the Client (Copilot) Side

After FSX starts, select **Multiplayer** from the main menu. This takes you to the "MULTIPLAYER – Sign In" screen. From this screen, select Local network (LAN).

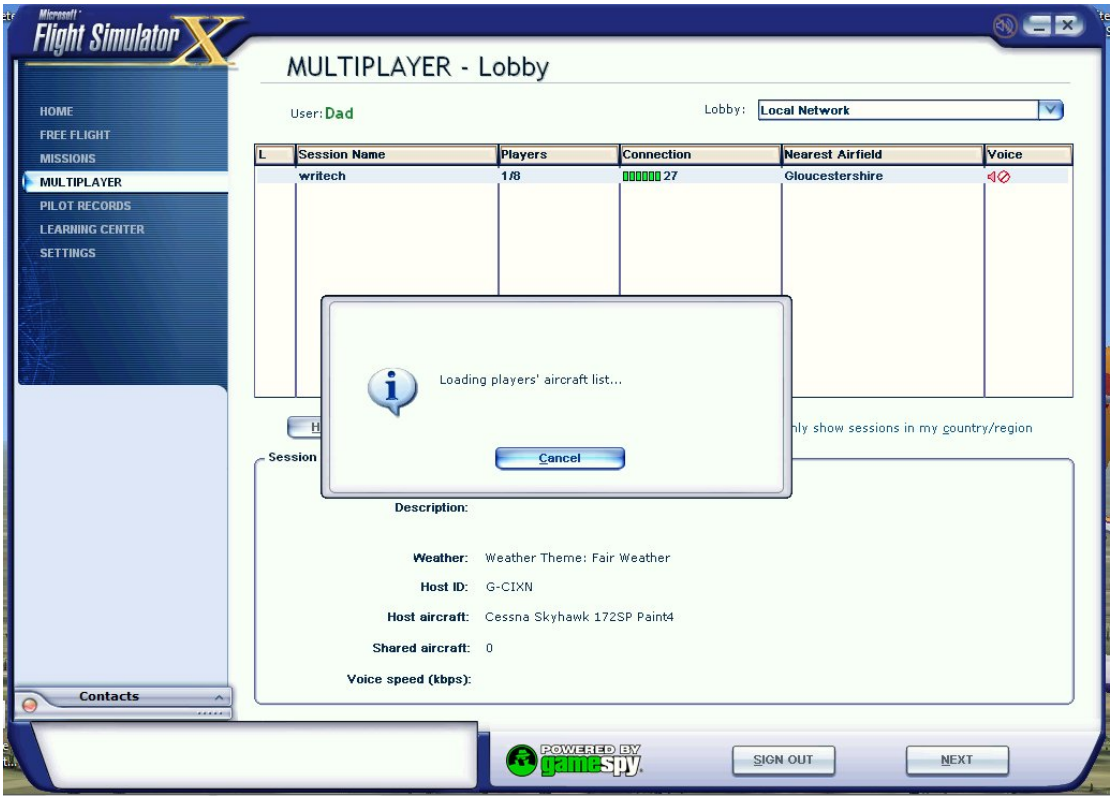
Check your network settings as described for the Host, then when you are satisfied that the correct ports are open in your firewall, click on **Sign In**. This takes you to the Multiplayer Lobby screen.



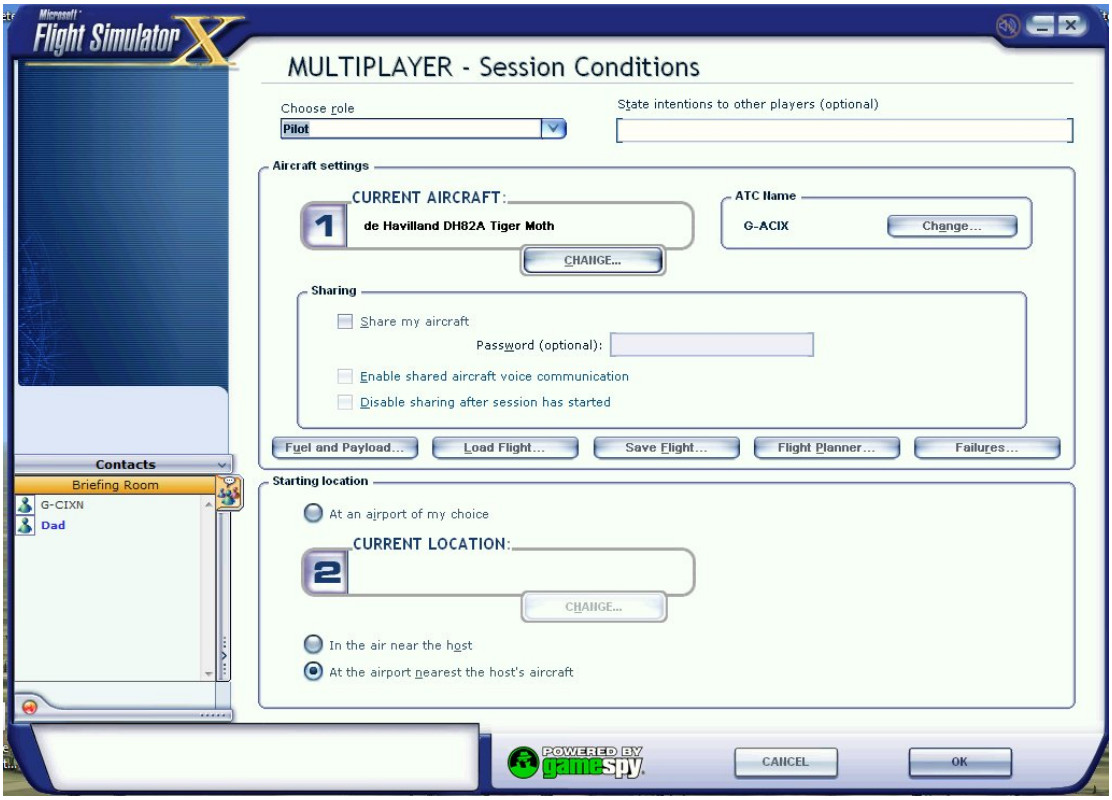
Click on the **Connect Directly** Button.



Enter IP address the Captain, (the session host) gave you in this screen, then click on **Find Sessions.** A small window appears for about 10 seconds "Trying to Connect" followed by another "Loading players' aircraft list.



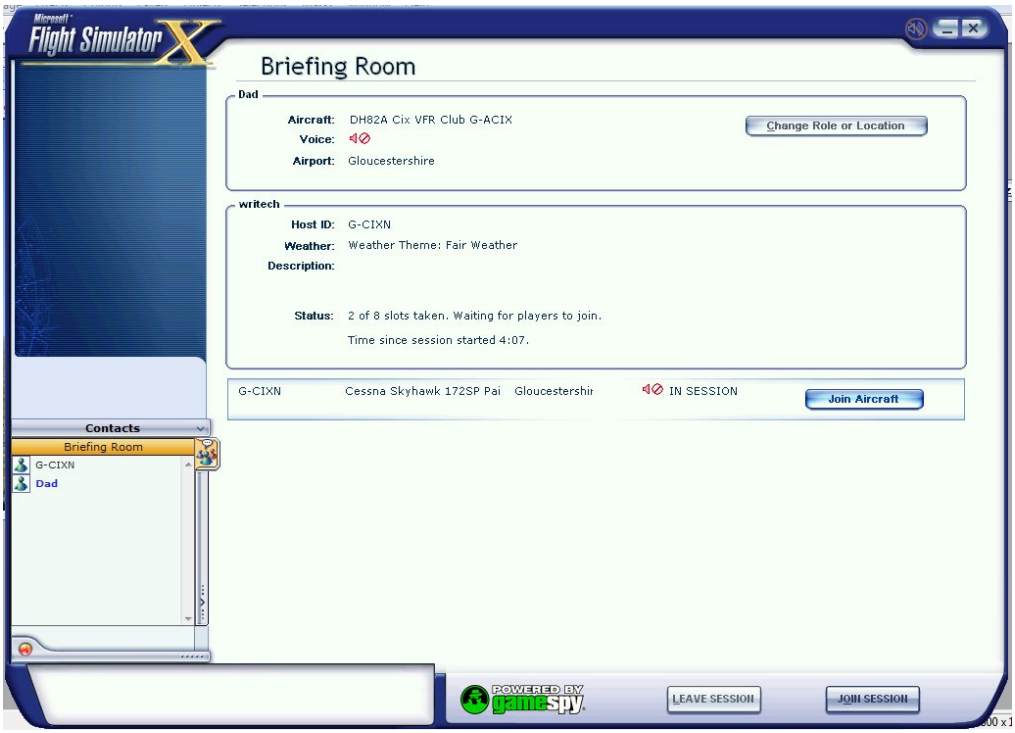
Click **Next**. This takes you to the "MULTIPLAYER Session Conditions" screen.



Make sure you select the same aircraft and location as your host, otherwise synchronisation cannot be guaranteed.

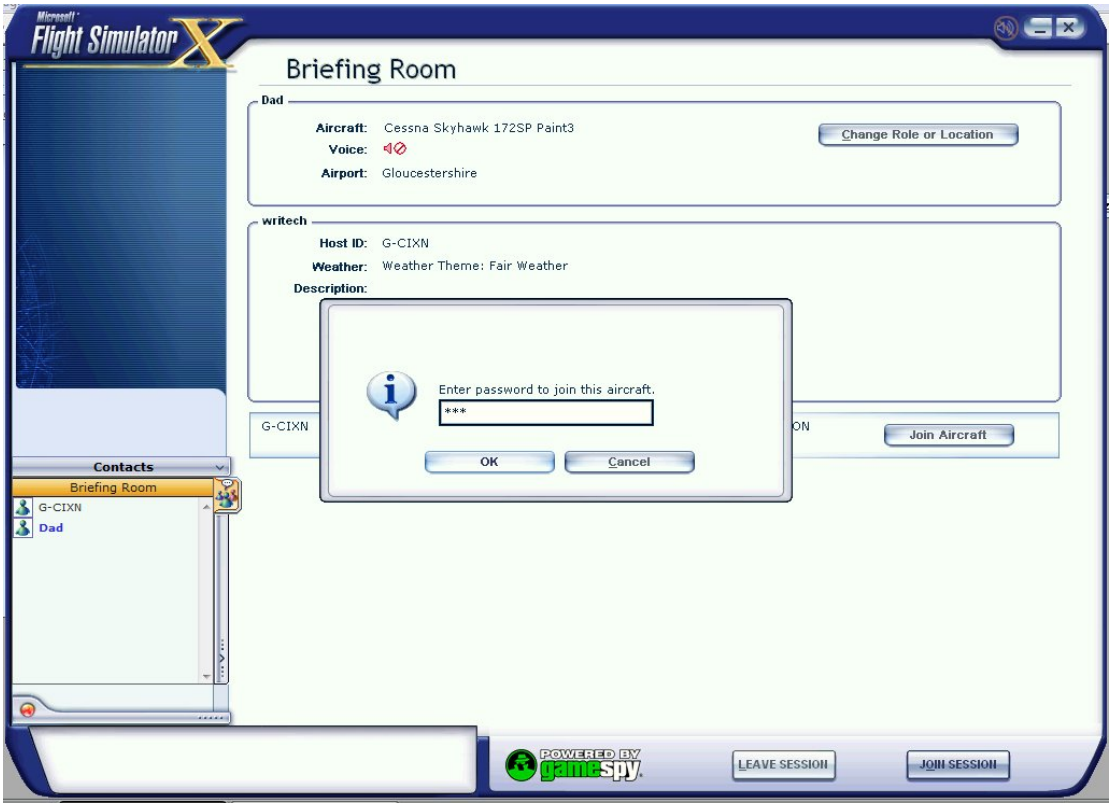
Do NOT select 'Share Aircraft'. This is a bug in FSX. The option ought not to be shown for the client connecting to a remote host. If both players select "Share my aircraft" the connection fails.

Click on **OK**. This takes you to the Briefing Room.



Click on **Join Aircraft**. This important. If you select **Join Session** instead of **Join Aircraft** at this point, you will not be able to join the Host aircraft without starting again.

The host may have set a password which should be entered in the next screen.



Click on **Join Session.** This takes you to the familiar scenery and terrain loading progress bar on a black screen and eventually places you in the cockpit of your host.

Your Captain will be alerted that you are now sharing his aircraft. At this point, you and the Captain are sharing control of the same aircraft, although as Co-pilot, you will not have full control. You can request full control by hitting Shift-T (the default request key) on the keyboard. On receiving your request, the Captain is notified by the familiar green background banner message, and he is notified to hit the Shift-T to transfer control to you. His response has a time – about 15 seconds – in which to respond, or the change of pilot in command fails. However, you can make as many attempts as you wish.

That completes the immediate Shared Cockpit setup.

Connecting to VATSIM.

The Captain (Host) now connects the session to VATSIM as usual by clicking on the Flight Sim top menu option **Add-ons –> FSCopilot –> Inn Control Panel –> VATSIM.**

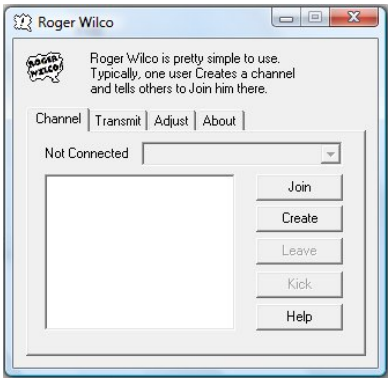
Only the Captain connects to VATSIM. Because the two of you are in the same aircraft, you both have the same view of other online aircraft. Other pilots and Air Traffic Controllers will only see one aircraft representing you and your co-pilot. Also, only one of you, the Captain, will be able to transmit and receive from the controllers using FSInn voice.

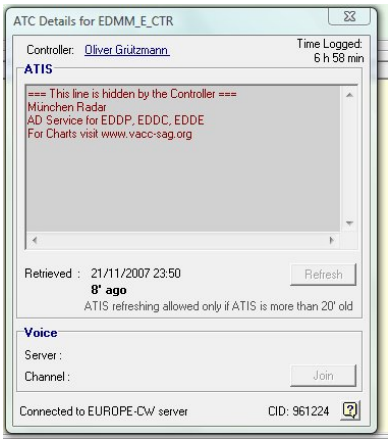
However because the co-pilot has control over aircraft functions other than the flying controls, he can tune the radios for the Captain. He just won't be able to communicate directly with the controllers.

ATC and Cockpit Communications

The host controls whether there is voice (VOIP) in the session during setup. For club training flights, he should disable the function in FS, in the Host Options screen. This is because in the Cix VFR Club, we generally use TeamSpeak for pilot to pilot communications.

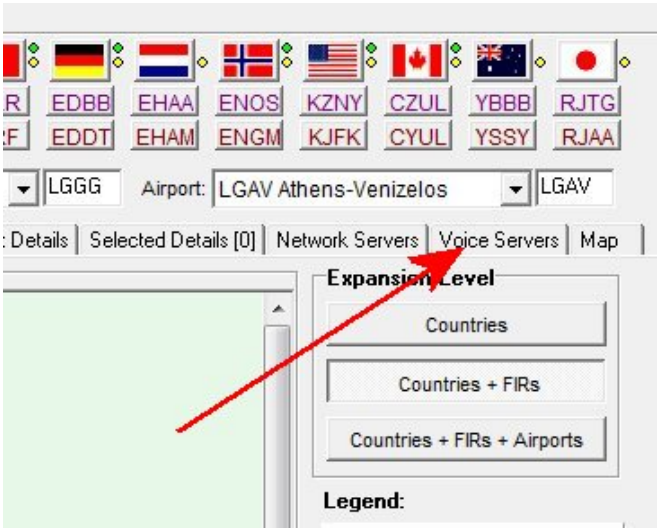
After connecting to FSInn, the Captain will initially be the only one who can talk to ATC. A fix to this is for the co-pilot to install the voice application Roger Wilco. If this is set running, then by also running Servinfo and navigating to the voice servers screen, the co-pilot can connect to the voice server and channel being used by the Air Traffic Controller. He then has independent voice communication with that Air Traffic Controller outside FSInn. This does not work with all voice servers, most notably UK-1, unfortunately, although the new UK-2 server does accept Roger Wilco connections.





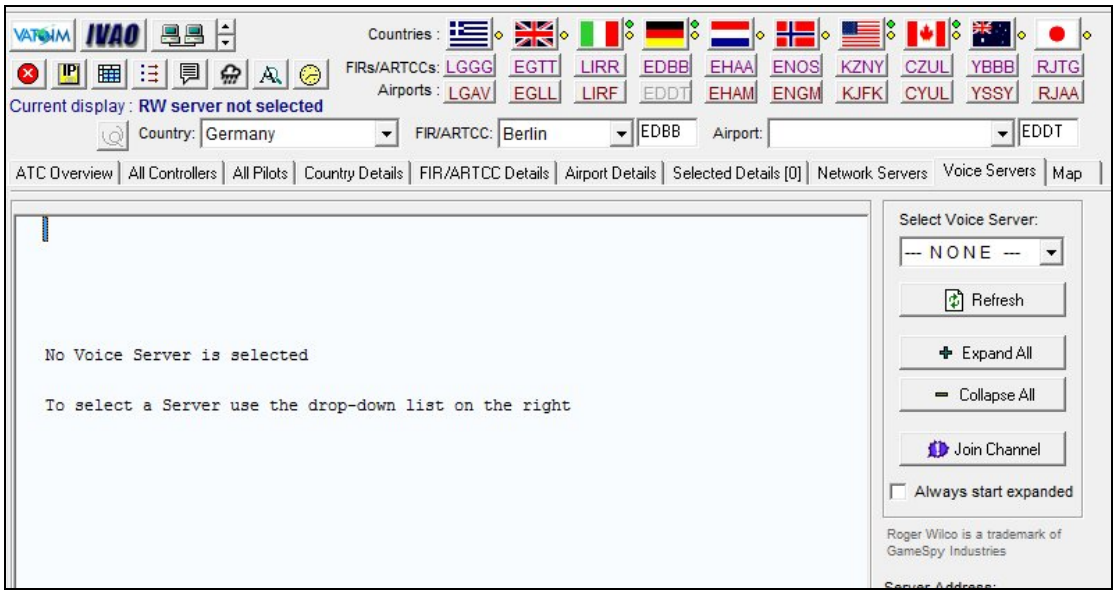
When you have installed Roger Wilco, the screen above left is displayed after a mike check. You can close this window for a moment.

Now open Servinfo and navigate to the Country Details screen to find the controller you wish to talk to. If you click the controller's name, a small window will open (see above right) showing at the bottom, the voice server that controller is using. In the example above it is EUROPE_CW.

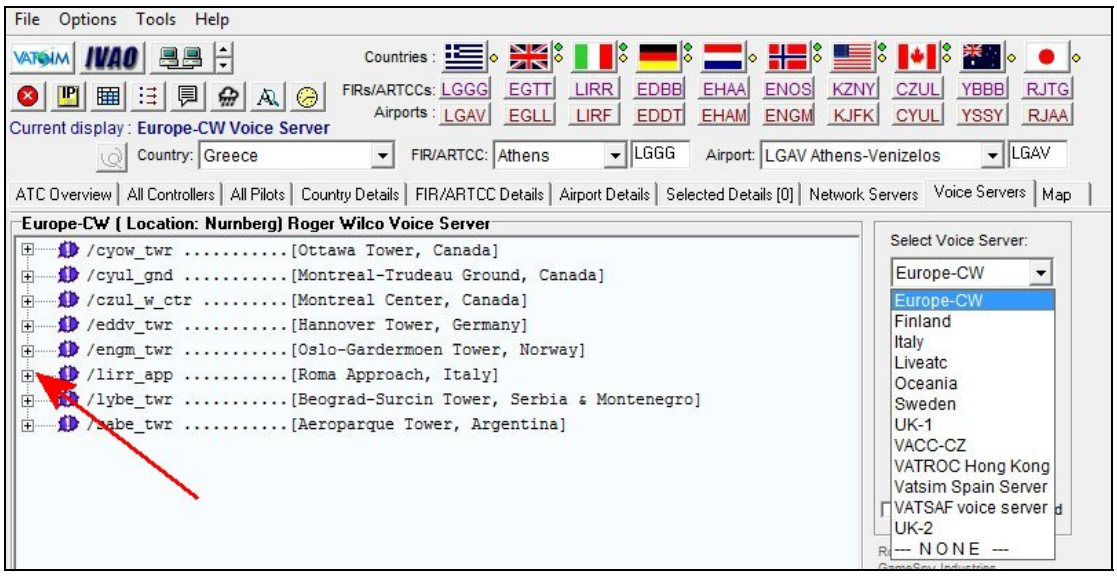


Now navigate to the Voice Servers screen.

When you first open the page, it will show NONE as below. Click on the selection arrow in the **Select Voice Server** drop-down list.



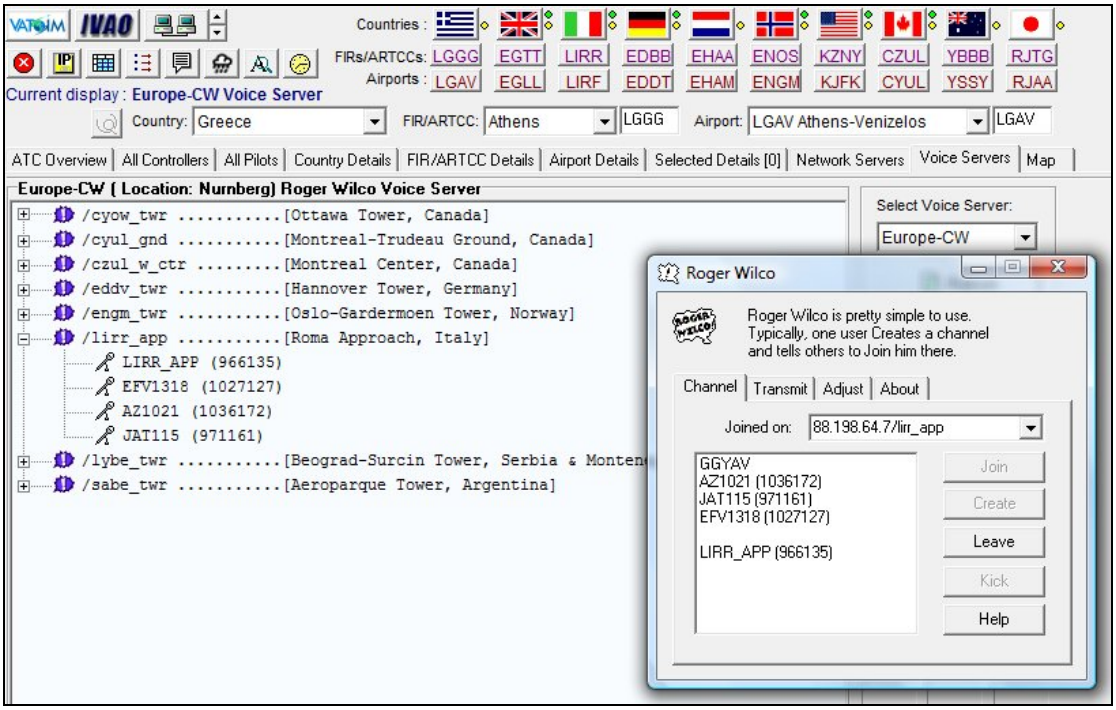
In our example, click on Europe_CW. A list of manned positions is now shown in the main window.



Let's say we want to talk to Rome (ICAO Code – LIRR) Approach. Click the small selection cross as shown above to open a list of everyone, controller and pilots, connected to that channel – or, in flying terms, tuned to that frequency.

Click once on the LIRR-APP (966135) line. Then click the **Join Channel** button.

A Roger Wilco window will now open, even if the application was previously not running.



If you have done it correctly, you will be connected to the same ATC facility as your Captain, and you can share the radio duties.