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.

	MULTIPLAYER - Network Settings
IOME FREE FLIGHT	Host settings
MISSIONS	Eort range: 6112 - 6122
NOT RECORDS LEARNING CENTER SETTINGS	Vaice compression: 3.600 Kbps
	Chert settings
	Enable voice communication
	Other
	Connection time out: 90.00
	Keep alive: [15.00
Contacts A	

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.

	MULTIPLAYER - L	obby			
HOME FREE FLIGHT	User: G-CIXN		Lobby:	Local Network	
MISSIONS	Session Name	Players	Connection	Nearest Airfield	Voice
MULTPLAYER PILOT RECORDS LEARNING CENTER SETTINGS	No sessions found				
	Host a Session Session information Status: Description:	Connect <u>D</u> irectly)	Only show sessions in my g	20untry/region
	Weather: Host ID:				
	Host aircraft:				
Contacte	Shared aircraft: Voice speed (kbps):				
List of all sessions currently hoste	ed in this lobby.	Powered			iext

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

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IOME		User: G-CIXN		Lobby:	Local Network	
AISSIONS	L	Session Name	Players	Connection	Nearest Airfield	Voice
AULTIPLAYER VILOT RECORDS EARNING CENTER BETTINGS		No sessions found				
	Se	Host a Session ssion information Status: Description:	Connect Directly.		Only show sessions in m	y <u>c</u> ountry/region
		Weather: Host ID:				
		Host aircraft:				
		Shared aircraft:				
		Voice speed (kbps):				

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

Flight Simulator		
	MULTIPLAYER - Session Information	
HOME FREE FLIGHT MISSIONS		
MULTIPLAYER PILOT RECORDS	Session name: writech	
LEARNING CENTER	LAN	
JET TINGS	Session <u>d</u> escription:	
13 Alexandre	Session password (optional):	
	Confirm password:	
	Session availability	
	On the Internet via GameSov	
	On your Local Area Network (LAN)	
	\bigcirc Do not <u>m</u> ake this session visible to others	
Contacts		
	COMERTED BY BACK	HEXT

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

The **CIX** VFR Club

Flinht Simulator	
Thight officiation	MULTIPLAYER - Session Conditions
HOME FREE FLIGHT MISSIONS	Select role: Pilot AIC Hame State intentions to gther players (optional): G-GYAV Change Change
MULTIPLAYER PILOT RECORDS	CURRENT AIRCRAFT:
LEARNING CENTER SETTINGS	Cessna C1/2SP Skyhawk
	CURRENT WEATHER:
	Launch flight with Chat window gpen
	Fuel and Payload) Load Flight Save Flight Flight Planner Failures
	A the second sec
Contacts	
	POWATIAD IN BACK NEXT

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.

Flinht Simulaton		
	MULTIPLAYER - Host Options	
HOME FREE FLIGHT MISSIONS MULTPLAVER PILOT RECORDS LEARNING CENTER SETTINGS	Player restrictions	
	Voice communication Image: Enable goice communication (broadband required) Ima	
	Sharing Share my aircraft Password (optional): Disable sharing after session begins if no one has joined Enable shared voice communication	
Contacts	Advanced Options	

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.

Flinht Simulaton		0 = ×
	Advanced Host Options	
номе		
FREE FLIGHT		
MULTIPLAYER		
PILOT RECORDS	Player options	
LEARNING CENTER SETTINGS		
	Players can change realism settings	
HT.	Values can change location after joining	
82	Players can share aircraft	
	V Players can use <u>S</u> lew mode	
	Players can join during session Players can pause their session	
	Host can pause session for everyone	
	~ Starting location	
	M Players can start at an airport of their choice	
	\mathbf{V} Players can start in the air near the <u>h</u> ost	
	✓ Players can start at the airport nearest the host's aircraft	
Contacts		
	CAHCEL	

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

Flinht Simulaton		
	MULTIPLAYER - Host Options	
HOME FREEFLIGHT MISSIONS MULTIPLAYER PILOT RECORDS LEARNING CENTER SETTINGS	Player restrictions Maximum players: Slots reserved for friends: 0 Minutes until session starts: 0 Voice communication Enable voice communication (broadband required) Image: Always activated for all players 0 0	
	 Only activated using aircraft radios Sharing ✓ Share my aircraft Password (optional): Disable sharing after session begins if no one has joined Enable shared voice communication 	
Contacts		

Click on **Next**.

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

Flinht Simulaton		
HOME FREE FLIGHT MISSIONS MULTIPLAYER PILOT RECORDS LEARNING CENTER SETTINGS	MULTIPLAYER - Host Options	
	Connection Completed.	
	Password (optional):	
Contacts	Advanced Options	

Flinht Simulaton						
	Briefing	Room				
	G-CIXN					
	Aircraft:	Cessna Skyhawk 172SP Paint4			Change Role or Locatio	
The second second second	Voice:	40				
	Airport:	Gloucestershire	(– Shared Seat –		
	writech					
	Host ID:	G-CIXN				
	Weather:	Weather Theme: Fair Weather				
	Description:					
Sec.	Status:	1 of 8 slots taken. Waiting for players	to join.			
		Waiting for host				
Contacts v						
Briefing Room						
🔏 G-CIXN						
A						
						_
Click to launch the session.			ŪV.	CLOSE SESSI	ON FLY NOW	

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.

Flinht Simulaton					
	MULTIPLAYER ·	- Lobby			
HOME	User: G-CIXN		Lobby: Lo	cal Network	
MISSIONS	L Session Name	Players	Connection	Nearest Airfield	Voice
MULTIPLAYER	No sessions found				
PILOT RECORDS					
LEARNING CENTER					
SETTINGS					
315 ·					
				1	
	Host a Session	Connect Directly		Only show sessions in my <u>c</u> ou	intry/region
	Session information				
	Status				
	Description	c			
	Weather				
	Host ID	c.			
	Host aircraft	t			
	Shared aircraft	t:			
	Voice speed (kbps)):			
		_			
List of all sessions currently hos	sted in this lobby.		EV (
List of an accasiona cull entry nos	sou in and toppy.			N OUT NEX	a l
200					

Click on the **Connect Directly** Button.

Flight Simulaton		
	MULTIPLAYER - Connect Directly to Host	
HOME FREE FLIGHT MISSIONS MULTIPLAYER PILOT RECORDS LEARNING CENTER SETTINGS	Enter IP address: Image: Image:	
Contacts		
1,32.	CANCEL	

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.

Hight Simulator	MULTIPLAYER	- Lobby	Lobb	y: Local Network	Voice
MISSIORS MULTIPLAYER PILOT RECORDS LEARNING CENTER SETTINGS	Vertice A Vertice A Vertic	ading players' aircrat	t list	Gloucestershire	r gountry/region
	Weath	er: Weather Theme	: Fair Weather		
	Host aircra	aft: Cessna Skyhaw	k 172SP Paint4		
	Shared aircr	aft: 0			
O Contacts	Voice speed (kbp	os):			
			ered ev Spy.	SIGN OUT	NEXT

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

Flight Simulator
MULTIPLAYER - Session Conditions
Choose gole State intentions to other players (optional)
CURRENT AIRCRAFT:
de Havilland DH82A Tiger Moth G-ACIX Change
CHAIIGE
Sharing
Password (optional):
Enable shared aircraft voice communication
Disable snaring after session nas started
Contacts
Briefing Room
Dad
2
CHAIRE
In the air near the host
At the airport nearest the host's aircraft

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.

Flight Simulator			
	Briefing	g Room	
	Dad	0	
	Aircraft:	DH82A Cix VFR Club G-ACIX	Change Role or Location
	Voice:	40	
	Airport:	Gloucestershire	
	writech		
	Host ID:	G-CIXN	
	Weather:	Weather Theme: Fair Weather	
	Description:		
	Status:	2 of 8 slots taken. Waiting for players to join.	
		Time since session started 4:07.	
	G-CIXN	Cessna Skyhawk 172SP Pai Gloucestershir	√ Ø IN SESSION Join Aircraft
Contacts v			
Briefing Room			
A G-CIXN			
0			
			LEAVE SESSION JOIN SESSION

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.

Flight Simulator	0=	×
	Briefing Room	_
	Aircraft: Cessna Skyhawk 172SP Paint3 Voice: 40 Airport: Gloucestershire	
	writech	
Contacts V Briefing Room	G-CIXN Enter password to join this aircraft.]
*		
	COWERED EX ELLIPS 1.7. LEAVE SESSION	

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.

Roger Wilco is pretty	simple to use. reates a channel	Controller: <u>Oliver Grützmann</u>	Time Logged 6 h 58 mi
and tells others to Jo Channel Transmit Adjust	About	=== This line is hidden by the Controller === München Radar AD Service for EDDP, EDDC, EDDE For Charts visit www.vacc-sag.org	Â
	Join Create		
	Leave	×	4
	Kick	Retrieved : 21/11/2007 23:50 8' ago	Refresh
	Help	Voice	5 is note than 20 old
		Server :	
		Channel :	Join

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.

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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.

Image:					
ATC Overview All Controllers All Pilots Country Details FIR/ARTCC Details Airport Details Selected Details [0] Network Servers Voice Servers Map Select Voice Server is selected To select a Server use the drop-down list on the right No Voice Server use the drop-down list on the right Select Voice Server use the drop-down list on the right Refresh All Pilots Country Details Airport Details Selected Details [0] Network Servers Voice Servers Map Select Voice Server Select Voice Server: N O N E Refresh Collapse All Join Channel Always start expanded Reger Wilco is a trademark of	Image: Angle of the second	Countries : LGGG EGTT Airports : LGAV EGLL FIR/ARTCC: Berlin	LIRF EDBB	EHAA ENOS EHAM ENGM Airport:	KZNY CZUL YBBB RJTG KJFK CYUL YSSY RJAA
No Voice Server is selected To select a Server use the drop-down list on the right Select Voice Server: No NE Collapse All Always start expanded Roger Wilco is a trademark of	ATC Overview All Controllers All Pilots Coun	try Details FIR/ARTCC Details	Airport Details Selec	ted Details [0] Ne	etwork Servers Voice Servers Map
GameSpy Industries	No Voice Server is selected To select a Server use the dro	p-down list on the right	5		Select Voice Server:

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

File Options Tools Help	
Image: Answine in the second secon	CZUL YBBB RJTG CYUL YSSY RJAA
Q Country: Greece ▼ FIR/ARTCC: Athens ▼ LGGG Airport: LGAV Athens-Vertical Athens ▼ LGGG Athens ▼ LGGG Airport: LGAV Athens-Vertical Athens ▼ LGGG Athens ▼ LGGG Athens ▼ LGAV Athens ■ The Athens ■ Th	enizelos 👻 LGAV
ATC Overview All Controllers All Pilots Country Details FIR/ARTCC Details Airport Details Selected Details [0] Network Se	ervers Voice Servers Map
Europe-CW (Location: Nurnberg) Roger Wilco Voice Server	
<pre>(cyow_twr</pre>	Europe-CW Finland Italy Liveatc Oceania Sweden UK-1 VACC-CZ VATROC Hong Kong Vatsim Spain Server VATSAF voice server d UK-2 UK-2

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.

Image: Angle of the second	Image: Second state sta
ATC Overview All Controllers All Pilots Country Details FIR/ARTCC Details Airport Details	Selected Details [0] Network Servers Voice Servers Map
Europe-CW (Location: Numberg) Roger Wilco Voice Server / cyow_twr	Select Voice Server:
	Roger Wilco Roger Wilco is pretty simple to use. Typically, one user Creates a channel and tells others to Join him there. Channel Transmit Adjust About Joined on: 88.198.64.7/lirr_app
<pre> //ybe_twr</pre>	GGYAV Join AZ1021 (1036172) Join JAT115 (971161) Create EFV1318 (1027127) Leave LIRR_APP (966135) Kick Help

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.