

Precision Flight Controls, Inc.

Serial Throttle Quadrant Console Setup Guide With Microsoft Flight Simulator X



Preface

This setup guide will walk you through the necessary steps to setup your PFC Throttle Quadrant Console with Microsoft Flight Simulator X (FSX). For connection diagram please refer to the last page of this guide.

It assumes that you have already installed FSX at least has ran it once. If you have not installed and run it, please do so now and refer to this guide once that task is completed. For reference on software installation, please refer to manual you received with your software.

Set Up Phases:

- A. Install the PFC Serial Driver for FSX
- B. Configure PFC Serial Driver for hardware communication
- C. Enable and calibrate main controls
- D. Enable and calibrate trim controls.
- E. Enable Quadrants
- F. Configure Consoles tab

Contents

Α.	Install the PFC Driver for FSX	. 4
	A1. Download the PFC Driver for FSX	. 5
	A2. Installing the driver	. 5
В.	Configure PFC Serial Driver for hardware communication	. 9
	B1. Getting the Com Port information	.9
	B2. Configure PFC Driver with Com Port information	10
C.	Disable Main Flight Controls	11
	C1. Disable main flight controls	11
D.	Enable and calibrate trim	11
E.	Enabling the quadrants	13

A. Protocol Switch

The protocol switch allows your serial throttle quadrant console to properly communicate with FSX. The other side of the switch is exclusively for ELITE software only. Make sure that the switch is pointed to "PFC" side for FSX operation. If you do not have this switch, your device is not compatible with FSX.



B. Install the PFC Driver for FSX

The PFC Serial Driver for FSX, includes the PFC.dll and FSUIPC.dll. This software allows the serial Precision Flight Controls, Inc. devices to communicate and work with Microsoft Flight Simulator 2004 (FSX) and Microsoft Flight Simulator X (FSX). Because of the internal difference between FSX and FSX please make sure that you download the appropriate PFC Driver for the software that you are using.

A1. Download the PFC Driver for FSX

- 1. Download the PFC Serial Driver for FSX from our site: https://flypfc.com/legacy.
- 2. When you click on the link it will ask where you want to save the file, make sure that you save it on your Desktop.
- 3. Now that you have downloaded the driver please close your browser.

A2. Installing the driver

- 4. On your desktop, look for the PFC_Serial_Driver_FSX.exe, and double click on it.
- 5. Click on Next.



 Read the license agreement. You will need to Accept the agreement to be able to use the driver. Once you have agreed click on Next.



7. Now click on Install.



8. Click on OK.

Installer for FSUIPC4	3
Save as	
FSUIPC4 Installer for FSX & ESP FSUIPC4.DLL version 4.728b Installed into FSX okay! Please see the "FSUIPC4 User Guide" file. It is in the FSX\Modules folder. C OK ng"	
Now installing additional files into the "Modules\FSUIPC Documents" folder: Installed "FSUIPC4 User Guide.pdf" okay Installed "FSUIPC4 for Advanced Users.pdf" okay Installed "FSUIPC4 History.pdf" okay Installed "List of FSX controls.pdf" okay	
Installed "GlobalSign Root.exe" okay	
Installed "FSUIPC Lua Library.por" okay Installed "FSUIPC Lua Plug-Ins.pdf" okay	
Installed "Lua License.pdf" okay	III
Installed "Lua Plugins for VRInsight Devices.pdf" okay	
Installed "Example LUA plugins.zip" okay	
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9. If you have a registration for FSUIPC, input it in here otherwise click on Cancel.



10. Now click on Next.



11. Now click on Next then Finish.

Setup - PFC USB Driver for I	SX C
Precision Filght Controls, Inc.	Completing the PFC USB Driver for FSX Setup Wizard Setup has finished installing PFC USB Driver for FSX on your computer. Click Finish to exit Setup.
	< Back Finish

C. Configure PFC Serial Driver for hardware communication

B1. Getting the Com Port information

The COM port or serial port is a port used by the CAT I System to communicate to FSX. It is important to know the correct COM port number that your CAT I System is connected to. This information will be necessary for proper communication between FSX and CAT I system. The steps below will guide you to find out the correct com port number.

1. Go into the device manager

For Windows 7:

- I. Click on the Start orb.
- II. In the Search box, type *device manager* and then press enter.

For Windows XP:

- I. On the desktop right-click on My Computer and click Properties or open the Control Panel and double-click the System icon.
- II. In the System Properties window, click the Hardware tab.
- III. In the Hardware tab, click the Device Manager button.

Or

- IV. Click Start
- V. Click Settings
- VI. Click Control Panel
- VII. In the Control Panel double-click the Systems icon.
- VIII. In the System Properties window click the Hardware tab.
- IX. In the Hardware tab click the Device Manager button.
- 2. In the Device Manager window, expand the Ports list by clicking on the plus (+) sign
- 3. Make a note of the com port numbers, as you will need this later in your setup.
 - My COM Port number/s :_____ and _____
- 4. Close the Device Manager Window and any other open Window

B2. Configure PFC Driver with Com Port information

- 12. Start FSX.
- 13. Once it has completely started, choose Free Flight.
- 14. Then click on Fly Now!
- 15. Once FSX has completely started, the PFC Control Connections Check window will be shown.

PFC Control Connections Check		PFC Control Connections Check
Checking	operation of the PFC equipment:	Checking operation of the PFC equipment
Version of supporting FSUIPC module:	FSUIPC is okay. All options available: 3.470 🗸	Version of supporting FSUIPC module: FSUIPC is okay. All options available: 3.470
COM serial port port connection:	COM1 open okay 🗸	COM serial port connection: COM1 open okay
Yoke-aileron control:	>>>>>>>>No results seen at all!	Yoke-aileron control: >>>>>> No results seen at all!
Yoke–elevator control:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Yoke-elevator control: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Pedals-rudder control:	>>>>>>>>No results seen at all!	Pedals-rudder control: >>>>>> No results seen at all!
Throttle quadrant operation:	>>>>>>>>No results seen at all!	Throttle quadrant operation: Okay!
Avionics / radio stack connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Avionics / radio stack connection: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Mode Control Panel (MCP) connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Mode Control Panel (MCP) connection: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Project Magenta CDU connection:	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Project Magenta CDU connection: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Press RETRY, ar	nd move or fix controls within 8 seconds	Press RETRY, and move or fix controls within 8 seconds
PFC driver version 1.92	Quit FS Continue FS	PFC driver version 1.92 Retry Quit FS Continue FS

- 16. Choose the Com port that your hardware is connected to.
- 17. It should say COM (x) open-okay. If it does not say OK look at you notes on Step18 and look at the second number that you wrote, change the COM port to that number and click on **Retry**.
- 18. Once the correct COM Port is selected you should get a green check on the **Throttle Quadrant Operation.**
- 19. Now that the throttle quadrant controls have checked OK, click on **Continue FS**.

D. Disable Main Flight Controls

C1. Disable main flight controls

- 1. Press the ALT key on your keyboard and choose Add-ons.
- 2. From the Add-ons choose PFC.
- 3. In the Precision Flight Controls window, choose Flight Controls.
- 4. In the **Flight Controls** tab disable the **Elevator**, **Aileron and Rudder**, by clicking on the enable box which is opposite of the F for filter box.

Precision Fligh	t Controls						×
Main Avionic	Flight Controls	Trime/Steering	Quadrants Co	nucles Yoke Butto	na Avionics But	tons Test	
- Set de a							h l
	Ailerons	Elev	ator	Rudder	LeftBrake	RightBrake	
Check) Check	Γ	F	F T	F٢	F	FF	j
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E. Enable and calibrate trim

NOTE:

Before enabling the Rudder trim, you will need to make sure that your trim is a separate channel.

5. Go to the Trims & Steering tab.

Avionics Flight Contro	ols Trims/Steering	Quadrants Consoles	s Yoke Buttons Avio	nics Buttons Test
			- Constant I was a set for a set of	
Set defaults				
Set defaults	A3	1	n.u.t.	Okaraja Tilar
Set defaults	AileronTrim	ElevatorTrim	RudderTrim	SteeringTiller

- Enable the Rudder Trim and turn it left to right and see if the indicator is responding.
 If your rudder trim is not responding:
 - a. If you rudder trim is not responding, it means that it is not a separate channel and is connected to the rudder pedals instead. Disable the rudder trim check and set the rudder trim to the center with your rudder pedals.

If your rudder trim is responding:

- a. Click on **Select** button under the **Rudder Trim Axis**. This should say **Set Automatic** now.
- b. Turn your Rudder Trim knob the way to the Left. Click on the Set left most limit.
- c. Turn your Rudder Trim knob all the way to the Right. Click on the Set right most limit.

Precision Flight Controls Main Avionics Flight Cont Set defaults	rols Trims/Steering C	Quadrants Consol	es Yoke Buttons Avic	nics Buttons Test
Check to enable, check F=filtered:	AileronTrim	ElevatorTrim	RudderTrim	SteeringTiller
Response Curve				
Input value:	FRVS	E RVS	□ RVS 64	□ RVS 255
Set right centre limit: Set left centre limit:	72 56	No centre	70	72 56
Set left-most limit: Scaled output: Select or de-select:	20 0 Select	20 16383	48 0	20 16383
				OK Cancel

F. Enabling the quadrants

- 1. Click on Throttle Quadrants tab.
- 2. Scroll through the list by clicking on the arrows.
- 3. Enable the levers that you own by clicking on the Quadrant Enabled check box on the left side.
- 4. Disable the quadrants you do not have by unchecking the box.

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recision Flight Controls							Ľ
Main options Avionics Opti	ons Flight Con	trols Throttle Qu	uadrants Consol	es Yoke Buttor	ns Avionics Butt	ons Test	
Quadrant Enabled -	Assign to airc	raft <mark>- Set def</mark>	aults	Jet	2 Engined		
	Spoilers		Throttle1	Throttle2		Reverser	
				RVS			
Input value:	0	127	0	26	127	127	
Set fully up limit:	108	0	108	108	0	108	
Set deployed zero limit:	35	No	No	No	No	No	
Set armed zone limit:	35	centre	centre	centre	centre	centre	
Set parked limit:	20	0	20	20	0	20	
Scaled output:	0		0	1117		0	
Select or de-select:	Set automatic	Select	Select	Select	Select	Select	
					OK	Cancel	