Prop Cockpit Trainer & 2S



Please read this manual before operating your units and keep it for future reference



Contents

1.	Introductions 1.1 General 1.2 Features 1.3 Display & Control Configuration.
2.	Deliverables
3.	Hardware Connection 3-1. Plug/Connection diagram
4.	Software installation 4-1. FSUIPC installation 4-2. VRiSim installation 4-3. Panel Installer installation 4-4. FSX Acceleration installation
5.	Monitor setting
6.	Quick start
Ар	pendix FSUIPC VRiSim Panel Installer Window Configuration Calibration & Test

Foot raiser kit

1. Introduction

1.1 General

The *Prop Cockpit Trainer* of VRinsight is a realistic propeller training device with full control and screen system for instrument flight. Modeled single engine aviation, aluminum yoke, Engine start Magnetos (5-positions), Landing Gear, 3 Axis lever, Flap switch, Radio panel & GPS are closely reproduced to experience real instrument flight synchronized with Microsoft's Flight Simulator.

The *Prop Cockpit Trainer* is the one of the most affordable training device for student pilots, online pilots to fly at anytime and anywhere.

It is completely interfaced with MSFS9 and MSFSX through add-on software "*VRiSim*" which enables *Prop Cockpit Trainer* to perform full simulation with simple connecting PC through USB.

1.2 Features

- Same functionality and externality with real Propeller cockpit
- Gauges on the panel;
 - Speed indicator
 - ALTITUDE indicator with position bar setting rotary knob
 - ALTIMETER with BARO setting rotary knob
 - TURN COORDINATOR
 - HEADING indicator with heading bug and gyro rotary knob
 - VERTICAL SPEED indicator
 - VOR1 indicator with OBS rotary knob
 - VOR2 indicator with OBS rotary knob
 - ADF indicator with HDG rotary knob
 - FUEL/OIL gauge
 - Manifold pressure gauge
 - TACHOMETER
 - CLOCK
 - GPS with push buttons and rotary knob (GPS500 model)
- Radio panel
 - Red color 7 Segments and tact switches.
 - Luminous Tact switches
 - Integrated unit with all radio stack units ; COM 1 & 2, NAV 1 & 2, ADF, DME, TRANSPONDER, Auto-pilot
- Solid cast aluminum powder coasted yoke.
- Controls on switch panel
 - Engine start magnetos switch ; 5 positions
 - Battery switch
 - Fuel boost pump switch
 - Light switches ; BCN, LANDM TAXI, NAV, STROBE
 - Pitot heat switch
 - Pitch / Trim wheel with status indicator FNDs
 - 3 Axis lever ; Throttle, Fuel mixture, Propeller pitch
- Flap lever
- Fuel tank selector
- Landing gear switch with position indicator lights

Copyright ©2012 **VRin/ight** www.vrinsight.com

- Fully metal case & Aluminum cases
- Standalone type
- Available in Window mode only
- USB 2.0 compliant connection for control interface
- External power requirement : 110V / 220V free voltage
- Video port requirement : One free DVI / VGA video port
- Compatible with Microsoft's Flight Simulator X and 2004
- Compatible with Microsoft Windows XP, Vista and Windows 7
- Dimensions & Weight (Prop Cockpit Trainer)
 W : 75 cm L : 78 cm H : 46 cm (without feet) /103cm (with feet)
 Weight : 31 kg (without feet) / 33 kg (with feet)
- Dimensions & Weight (Prop Cockpit Trainer 2S)
 W : 75 cm L : 108 cm H : 46 cm (without feet) /103cm (with feet)
 Weight : 51 kg (without feet) / 53 kg (with feet)
- 1 year warranty

1.3 Display & Controls Configuration

The *Prop Cockpit Trainer* has a configuration of Cessna 172 / 182.

Its displaying areas displays the Speed indicator, ALTITUDE indicator, ALTIMETER, TRUN COORDINATOR, HEADING indicator, VERTICAL SPEED indicator, VOR 1 indicator, VOR 2 indicator, ADF indicator, FUEL / OIL gauge, TACHOMETER, CLOCK and GPS.

• GPS is a replica of Garmin 500

Its control parts are divided by Radio panel, Yoke and Switch panel.

The Radio panel features COM 1/2, NAV 1/2, ADF, DME, Transponder, Auto-pilot unit The switch panel features Magnetos, Battery Avionics & light switches, Pitch / Trim wheel, 3 Axis lever, Flap lever, Landing gear.







Radio panel



Yoke





Switch panel

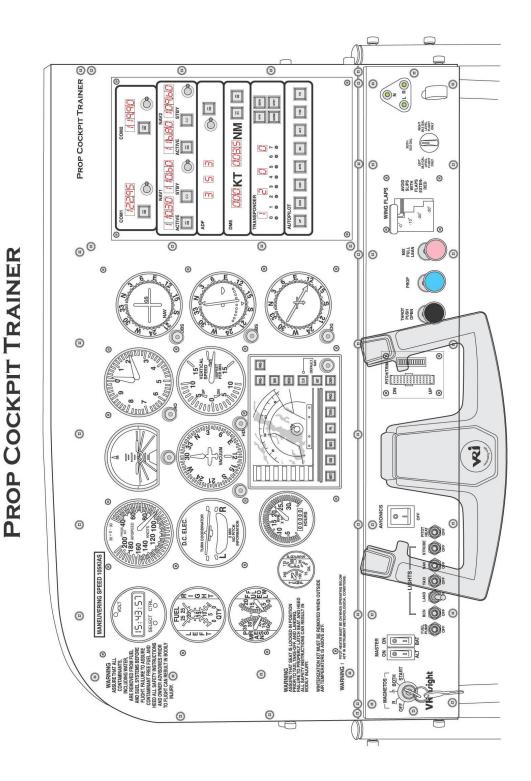
ttery, Avionics & switches

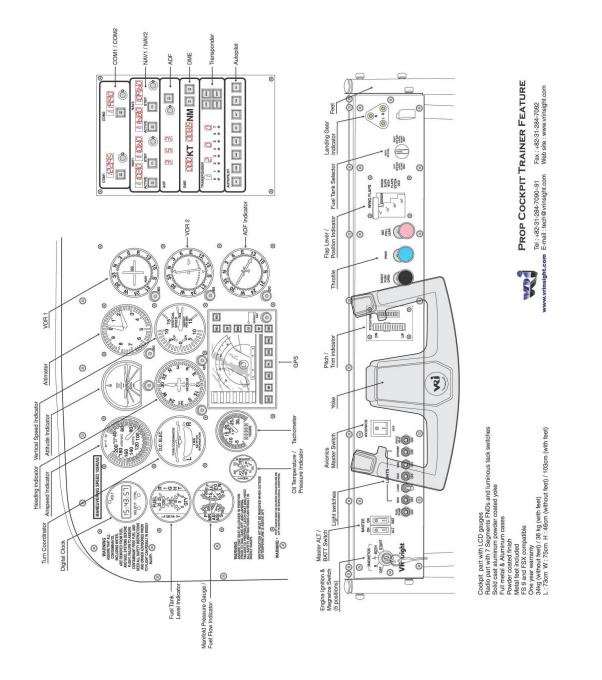
Pitch / Trim wheel

3 Axis lever

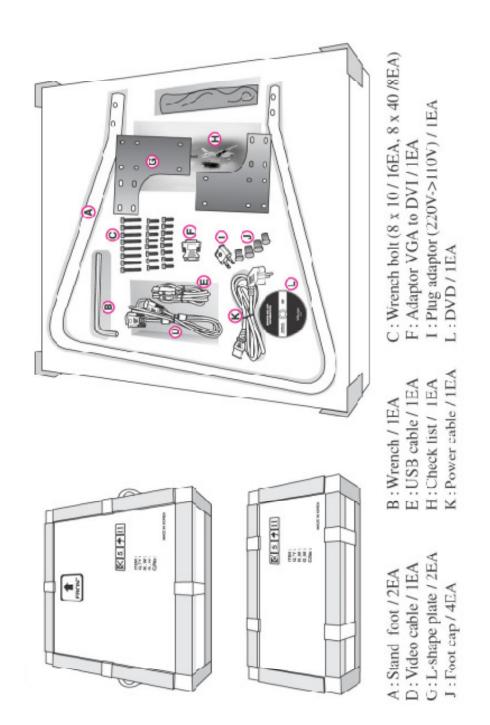
Flap lever Landing gear

Copyright ©2012 VRin/ight www.vrinsight.com





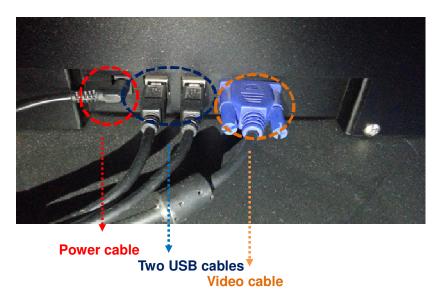
2. Deliverables



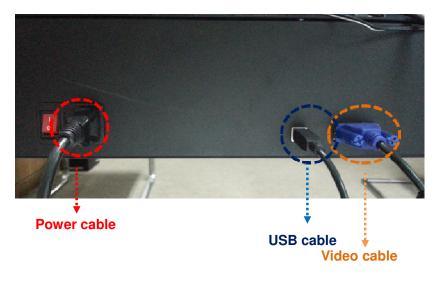
3. Connection

3-1. Plug/Connection Diagram

There are two connection parts; the linkage between the upper part and the lower part



The back of the lower part



- Video cable for color LCD display
- Power cable for external power source
- USB cable (A to B type) is for interface

4. Software Installation

4-1. FSUIPC installation

NOTE : See the Appendix for FSUIPC part on how to install FUSIPC.

4-2. VRiSim installation

Driver and application software "VRiSim" is installed to make Prop Cockpit Trainer work in the PC.

VRISIm is application software managing VRInsight's flight simulation hardware panels. Multiple hardware panels can be used with single instance of **VRISIm**. To reduce distributing file size, software installer is supplied as divided package; base-package and device specific module package. The base-package installs only **VRISIm** and Panel Installer utility.

Installer executable is divided into **base package** and **device specific modules**. **VRiSim** is included in the base-package setup installer, "Install_VRiSim.exe".

Base-Package Installer:

The base-package installer can be found in the supplied DVD,

\VRiSim\Install_VRiSim.exe

Device Specific Module Package Installer:

The Prop Cockpit Trainer module installer can be found in the supplied DVD,

VRISim/Install_ProPit.exe VRISim/Install_Radio-Stack.exe VRISim/Install_PCTSP.exe

Or downloaded at VRInsight's web-page, http://www.vrinsight.com/devel_shot

NOTE: See the Appendix for VRiSim part on how to install VRiSim.

4-3. Panel Installer installation

Panel Installer software configures each aircraft to use in **Prop Cockpit Trainer**. Once it is done, no additional configuration is required.

NOTE : See the Appendix for Panel Installer on how to configure the aircraft

4-4. FSX Acceleration pack installation NOTE : Be sure that FSX acceleration pack should be installed for FSX

5. Monitor setting

There is a 20.1" color LCD monitor inside of **Prop Cockpit Trainer**. It means the **Prop Cockpit Trainer** is a LCD monitor so to make the **Prop Cockpit Trainer** work, **Prop Cockpit Trainer** should be detected in your computer.

Step 1. Connect the external power source to the Prop Cockpit Trainer.

Step 2. Connect the USB cable of the Prop Cockpit Trainer to the computer

Step 3. Connect the Video cable of the **Prop Cockpit Trainer** to the computer Once the connection is done, right click the **Desktop** (=**Wallpaper**) and go to **Screen resolution**

🔵 New Folder		
View	•	•
Sort by	•	•
Refresh		
Paste		
Paste shortcut		
Undo Move	Ctrl+Z	
NVIDIA Control Panel		
New	•	-
Screen resolution		
Gadgets		
Personalize		

Step 4. Once the Prop Cockpit Trainer is properly connect to the computer, monitor No.2 (=Prop Cockpit Trainer) is automatically detected like below image.

Screen Re	solution		
90	Control Panel Appearance and Personalization Display Screen Resolution	🝷 🔄 Search Control Panel	P
File E di t V	view Tools Help		
	Change the appearance of your displays	┓	<u>•</u>
	. 1 2	Detect Identify	
	Display: Z. Generic Non-Pr/P Monitor	nitor	
	Resolution: 1680 × 1050 -		
	Orientation: Landscape		
	Multiple displays: Extend these displays		
	Make this my main display	Advanced settings	
	Make text and other items larger or smaller		
	What display settings should I choose?		
	OK	Cancel Apply	

NOTE: If the **Prop Cockpit Trainer** is not detected as a second monitor like below image, click "**Detect**".

5creen l	Resolution						
00	🦉 🔹 Contra	ol Panel + Appearance	and Personalization • Display • Screen	Resolution	- 🕶	Search Control Pan	3
File Edit	View Tools	Help					
		Change the app	earance of your displays		_		
				nother display not detected		Detect Identify	
		Display:	1. Dell SP2008WFP(Digital)	•			
		Resolution:	1680 × 1050 (recommended)				
		Orientation:	Landscape 🔄				
						Advanced settings	
		Make text and oth	er items larger or smaller				
		What display setti	ngs should I choose?				
				OK	Cancel	Apply	
							1

Step 5. Find the recommanded screen resolution: 1680 * 1050 (1024 * 768 / 1920 * 1080)

Screen Resol	lution		
00 🖻	Control Panel Appearance and Personalization Display Screen Resolution	🔹 🔄 Search Control Panel	P
File Edit View	n Tools Help		
	Change the appearance of your displays		-
	. 1 2	Detect Identify	
	Display: 2. Generic Non-PnP Monitor Resolution: 1600 × 1050 Crientation: Landscape		
	Multiple displays: Extend these displays	Advanced settings	
	Make text and other items larger or smaller What display settings should I choose?		
	OK	Cancel Apply	

Step 6. Place the mouse cursor at the left top of the Monitor No. 2 and check the position.

Screen R	tesolut	ion		
00	-	Control	Panel - Appearance and Personalization - Display - Screen Resolution - 😽 🛃 Search Control Panel	2
File Edit	View	Tools	Hep	
			Change the appearance of your displays	-
			1650.0 Detect Identify	
			Display: 2. Generic Non-PnP Monitor	
			Resolution: 1680 × 1050	
			Orientation: Landscape 🔽	
			Multiple displays: Extend these displays	
			Make this my main display Advanced settings	
			Make text and other items larger or smaller	
			What display settings should I choose?	
			OK Cancel Apply	-
				li.

6. Quick Start

VRiSim is new software developed for interfacing VRinsight's hardware unit to Microsoft's Flight Simulator. After installation of **VRiSim** software, short-cut icons will be created on your desk-top; **VRiSim**. **VRiSim** is used in replacing with SerialFP2 software for **Prop Cockpit Trainer**.



NOTE : Section 4. Software installation & Section 5. Monitor setting should be done.

Step 1. Run Flight Simulator 2004 / Microsoft Flight Simulator X

Run Flight Simulator 2004 / Microsoft Flight Simulator X and select an aircraft. Press "FLY NOW". **NOTE :** Be sure that the selected aircraft should be configured through the **Panel Installer** in advance.

Step 2. Load the Prop Cockpit Trainer view.



Prop Cockpit Trainer view is automatically loaded like under.

NOTE: If the Prop Cockpit Trainer view is not loaded, go to VIEW-> Instrument Panel -> Main and check NORMAL

NOTE: If the View mode is 3D, change it to Cockpit

NOTE: Be sure that MSFS is run in Window mode.

Copyright ©2012 **VRin/ight** www.vrinsight.com

Step 3. Undock the Prop Cockpit Trainer view



Place the cursor on the Prop Cockpit Trainer view and right click to Undock window

Step 4. Run VRiSim

Double-click "VRiSim" short-cut icon to run. "VRiSim" searches all VRinsight hardware units and list up founded device(s). Device searching process could be taken several minutes. Following image is showing that three device, **ProPit, Prop Control Box** and **Inst.RadioStack** are found and listed by "VRiSim" software. "VRiSim" manages multiple devices.



Copyright ©2012 **VRin/ight** www.vrinsight.com

[₩] VRiSim:	3-Devices Found!						
		Re-Scan VRi Device ±					
Main	ProPit Prop Control Box Inst.F	adioStack					
	·						
	Select device tab to see more info and test or aircraft selection						
Run Flight Simulator and Cockpit in Press "Fly now!" when ready							
,	(c)2012 VRInsigh	nt					
	Release. 2012.11.	21					
¥Rš _{im}	Fly now!	Virtual Virtual					

NOTE : Even if your **Prop Cockpit Trainer** is connected to your computer and **VRiSim** does not find the three devices, press in order to find all VRinsight hardware units again.

Step 5. Select Aircraft

Go to the tab of each device and select "Aircraft". And then check "Use this device".

₩ VRiSim: 3-Devices Found!		<u>_ </u>	
		Re-Scan VRi Device 🛨	
Main ProPit Prop Cont	rol Box Inst.	RadioStack	
Port: COM11 Type	e: ProPt	Version: 1.000	
Microsoft Cessna C172	(FSX)	•	
Use this device	□ Wait for MSFS Loading		
L for Non-MSFS	🗵 Open Co	onfig Dialog	
Test & Debug			
Read □	Write	T	
	Fly now!	Virtual Virtual	

• In ProPit tab, the selected aircraft should be already configured through the panel installer.

^{ver} VRiSim: 3-Devices Found!		- 🗆 ×
	Re-Scan '	VRi Device +
Main ProPit Prop Cont	rol Box Inst.RadioStack	
Port: COM12 Typ	e: PCTSP Version: 1.	100
Prop Trainer		•
Use this device	🗆 Wait for MSFS Loadii	ng
Tor Non-MSFS	🗵 Open Config Dialog	
Test & Debug		
Read □	Write 🗆	Т
	Fly now!	Vivtual Reality

• In Prop Control Box tab, select "Prop Trainer"

₩ VRiSim: 3-Devices Found!	
	Re-Scan VRi Device 🛨
Main ProPit Prop Cont	trol Box Inst.RadioStack
Port: COM13 Typ	e: COM Version: 3.000
Radios for MSFS2004/	FSX with FSUIPC
Use this device	□ Wait for MSFS Loading
for Non-MSFS	🗆 Open Config Dialog
Test & Debug	
Read □	Write T
VR:	Fly now!

• In Inst.RadioStack tab, select "Radios for MSFS2004/FSX with FSUIPC"

Step 6. Fly Now!

As the aircrafts are specified to fly with VRi's unit, press "Fly Now!" button. The undocked Prop Cockpit Trainer window will move to the Prop Cockpit Trainer.

NOTE: More about the **undocked Prop Cockpit Trainer window**, see the **Appendix** for **Window Configuration**.

NOTE : Remember that Flight Simulator should be running and you are in-cockpit before pressing this button. Otherwise, you will see following message.

Copyright ©2012 **VRin/ight** www.vrinsight.com

[₩] VRiSim:	3-Devices Found!
	Re-Scan VRi Device 🛨
Main	ProPit Prop Control Box Inst.RadioStack
	· · · · · · · · · · · · · · · · · · ·
	Flight Simulator is NOT running
	Due Elizable Circulator and Cooksit in
	Run Flight Simulator and Cockpit in Press "Fly now!" when ready
	Fress fly now: when ready
	(c)2012 VRInsight
	Release. 2012.11.21
VR.	
Sim	Fly now!
	Keairty

Appendix

FSUIPC VRiSim Panel Installer Window Configuration Calibration

VRInjight, ©2012

Copyright ©2012 **VRin/ight** www.vrinsight.com

FSUIPC

1. FSUIPC Installation

FSUIPC is add-on module for Microsoft's FlightSimulator. VRInsight's hardware panel interacts with Flight Simulator via FSUIPC. **VRISim** is bridging VRInsight's hardware panel and Flight Simulator via FSUIPC. Actually FSUIPC is pay-ware. **VRISim** is working with unregistered version of FSUIPC under the API level usage agreement with Pete Dowson. You have the option to pay for additional features in FSUIPC.

Step 1. Getting latest FSUIPC

To download latest version of FSUIPC, visit Pete Dowson's web-page,

http://www.schiratti.com/dowson.html

Web browser will be directed to FSUIPC download page, if "Visit Pete Dowson's PSUIPC page" is checked.

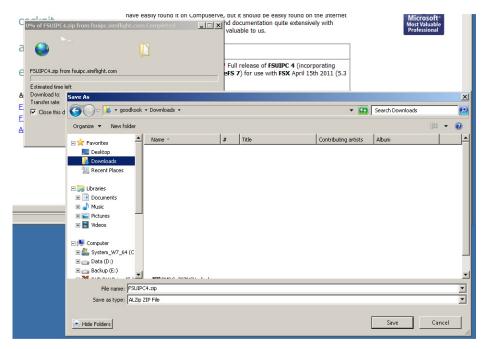
C The Official Peter Dowson Page - Windows Internet Explorer							
🕞 😔 🗢 🔣 http://www.schiratti.com/dowson.html		💌 🖄 🏕 🗙 😽 Goo	gle 🖉 🗸				
File Edit View Favorites Tools Help							
🚖 Favorites 🛛 🙁 💌 🏉 http://webmail.vrinsight.com	The Official Peter Dowso 🗙	👌 • 🗟 •	🖃 🚔 🔹 Page 🔹 Safety 🔹 Tools 🔹 🔞 🔹 🎇				
schiratti.com			Peter Dewsen's				
peter dowson	Last Updated: May 09, 2011	12:37 Romance Daylight Time	PFCDLL RavDisp				
project magenta	I had been searching for a l	Peter Dowson's Support Forum [Please use this to contact Peter] I had been searching for a link to Peter's WideFS following a request, and I had some trouble finding the newest postable version of his software. Ok, I could					
cockpit	have easily found it on Com	puserve, but it should be easily found on the Internet grams and documentation quite extensively with	Microsoft Most Valuable Professional				
aviation humour	FSX		1				
enrico schiratti		NEW Full release of FSUIPC 4 (incorporating WideFS 7) for use with FSX April 15th 2011 (5.3 MB)					
Ads by Google	FSUIPC4 4.70 (b)	replaced with (b) version for Prepar3D changes					
ESX Aircraft Flight Simulator Addon for FSX		WideServer7 is built into FSUIPC4, you will need the WideClient from the WideFS link below.					
	WideFS 6.86	NEW The WideClient.exe included in this zip is to be used with the WideServer7 module which is included with FSUIPC4 from now on. April 11th 2011					
	To register/buy FSUIPC or V simMarket:	VideFS for FSX, ESP and Prepar3D please go to					
		🔗 🛛 🈜 Internet Protected I	Mode: Off				

Step 2. Download FSUIPC

Click right-mouse button to FSUIPC4 download link and select "Save Target-As..."

FSX				
			ease of FSUIPC 4 (incorporating for use with FSX April 15th 2011 (5.3	
FSUIPC4 4		replaced wit	h (b) version for Prepar3D changes	
	Open Open in New Tab		is built into FSUIPC4, you will	
	Open in New Win	Charles from the Wildow half		
	Save Target As			
	Print Target		leClient.exe included in this zip is th the WideServer7 module which th FSUIPC4 from now on. April 11th	
WideFS 6	Cut			

Specify a folder where the FSUIPC4.zip is saved (i.e. "Download"),



It'll take several minutes depending on internet connection.

Peter Dowson's Support Fo	orum	Please use this to contact Peter]
some trouble finding the news	st pos serve, ams ar	er's WideFS following a request, and I had table version of his software. Ok, I could 23% of FSUIPC4.zip from fsuipc.simflight.com Completed
FSX		- v
FSUIPC4 4.70 (b)	NEW Wide MB) repla	Estimated time left: 2 min 12 sec (1.22MB of 5.51MB copied) Download to: C:\Users\goodkook\Dow\USerSUIPC4.zip Transfer rate: 33.4KB/Sec
	Wide need belov	Open Open Folder Cancel
WideFS 6.86	NEW to be is inc 2011	SmartScreen Filter checked this download and did not report any threats. <u>Report an unsafe download.</u>

Step 3. Run FSUIPC Installer

Extract downloaded zip archive "FSUIPC4.zip" and run installer file; "Install FSUIPC4"



Installation success message will be shown as follows;

🛄 Installer for FSUIPC4	_O×
Save as	
Looking in "C:#Users#Default User#AppData#Roaming"	_
No FSX.CFG there	
Looking in "C:#Users#goodkook#AppData#Roaming"	
Found FSX.CFG in "C:#Users#goodkook#AppData#Roaming#Microsoft#FSX#FSX.CFG"	
Now checking DLL.XML	
There is a previous DLL_XML, checking for FSUIPC4 section.	
FSUIPC4 section already exists but will be replaced.	
FSUIPC4 section of DLL.XML written okay Now checking for a SimConnect.XML file	
No SimConnect.XML file found. This is Looking in "C:#Users#Public#AppData#	
No FSX.CFG there	
Looking in "C:#Users#UpdatusUser#Apj > FSUIPC4.DLL version 4.742	
No FSX.CFG there Installed into F5X okay!	
"Modules#FSUIPC Documents" folder al Please see the "FSUIPC4 User Guide"	
Now installing additional files into the "In Figure 1 and the FSUMModule folder.	
Installed "FSUIPC4 User Guide.pdf" ok	
Installed "FSUIPC4 for Advanced User	
Installed "FSUIPC4 History.pdf" okay	
Installed "List of FSX controls.pdf" oka	
Installed "GlobalSign Root.exe" okay	
Installed "FSUIPC Lua Library.pdf" okay	
Installed "FSUIPC Lua Plug-Ins.pdf" okay	
Installed "Lua License.pdf" okay Installed "Lua Plugins for VRInsight Devices.pdf" okay	
Installed "LuaFileSystem.pdf" okay	
Installed "Example LUA plugins.zip" okay	
	<u> </u>

Finally it'll be prompted for registration of FSUIPC4. Registration code can be entered by pressing "OK" button. Or, select "Cancel" to continue using FSUIPC as unregistered. **VRiSim** is working with FSUIPC as un-registered version of FSUIPC at API-level.

Installer for FSUIPC4		_O×
Save as	will be replaced.	
Installer for FSUIPC4	n okay	
	ile	
Please select options here:, or press CANCEL for no registration.	s is okay. a#Roaming"	
	umouning	
● FSUIPC4 ○ WideF57 ○ Both	AppData#Roaming"	
C Delete previous registrations	already exists.	
C Check existing registration(s)	"Modules#FSUIPC Documents" folder:	
	okay ers.pdf" okay	
 Just enter new registration(s) 	y	
Cancel OK	ikay	
	y akav	
Installed "FSUIPC Lua Plug-Ins.pdf		
Installed "Lua License.pdf" okay Installed "Lua Plugins for VRInsigh	t Devices off skew	
Installed 'LuaFileSystem.pdf' okay		
Installed "Example LUA plugins.zip		
FSUIPC4.DLL installed and signature Deleted GlobalSign Root fix program		
All installer tasks completed.		Ţ
•		

How to know installed FSUIPC version?

FSUIPC is installed in "Modules" folder under MSFS is installed. Full path string would be as follows, if it was standard installation;

FS 2004:

"C:\Program Files\Microsoft Games\Flight Simulator 9\Modules"

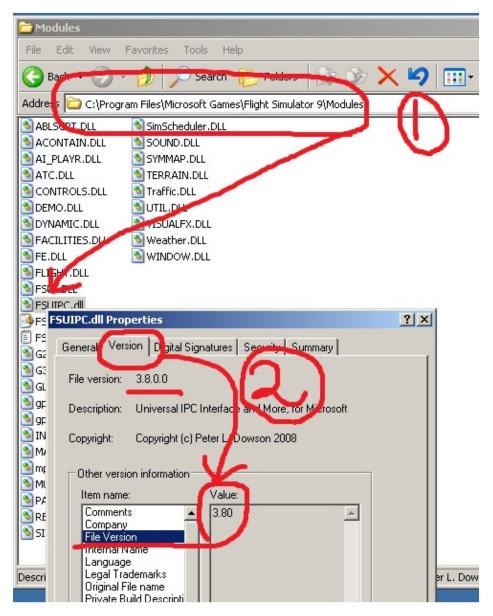
FSX:

"C:\Program Files\Microsoft Games\Flight Simulator X\Modules"

FSUIPC file could be installed without knowing, when you installed add-on aircraft. Verifying installed FSUIPC's version is highly recommended. Major version number of

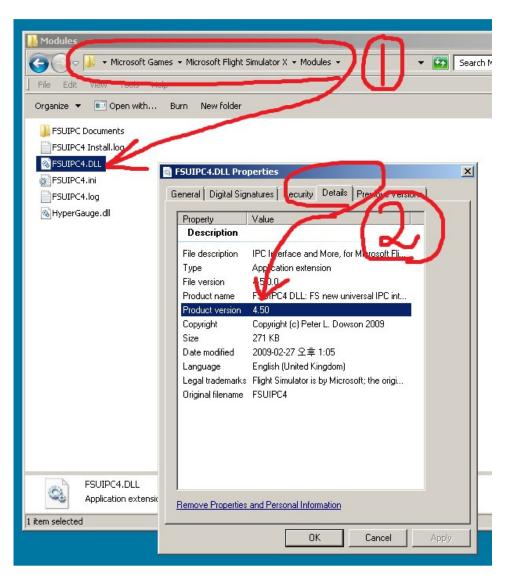
Copyright ©2012 **VRin/ight** www.vrinsight.com FSUIPC represents which MSFS is for. FSUIPC 3.xx is for FS 2004. FSUIPC 4 is for FSX. To check the version of installed FSUIPC, see relevant number in the screen shot images. Find file "FSUIP.dll" in the "MSFS' "Modules" folder (1) and see version information of the file properties (2).

Following screen shot image is taken in Windows XP and FS 2004. FSUIPC's version number should be 3.7 or above.



FSUIPC for FS 2004, can be re-installed easily. Download the latest version of FSUIPC 3.XX at Peter Dowson's official home page. Extract "FSUIPC.dll" in the downloaded zip archive and copy into the "Modules" folder (or replace with, if it's exists).

Following screen shot image is taken in Windows 7(Vista) and FSX. FSUIPC's version number should be 4.7 or above.



Installation procedure of FSUIPC4 is a bit different from version 3. It is installing executable. Download latest version of FSUIPC 4 at Peter Dowson's official home page. Extract "Install FSUIPC4.exe" in the downloaded zip archive and run it. Installation procedure will be preceded with finding FSX path and coping "FSUIPC4.dll". Finally, it'll be prompted for registration code input. Then, press "Cancel" button.

VRiSim

1. Introduction

VRiSim is application software managing VRInsight's flight simulation hardware panels. **VRiSim** can be used in replacement of SerialFP2. Multiple hardware panels can be used with single instance of **VRiSim**.

To reduce distributing file size, software installer is supplied as divided package; basepackage and device specific module package. The base-package installs only **VRiSim** and **Panel Installer** utility.

VRiSim is applicable for Microsoft's Flight Simulator.

2. VRiSim Installation

Installer executable is divided into base package and device specific modules. **VRiSim** is included in the base-package setup installer, "Install_VRiSim.exe".

The base-package installer can be found in the supplied DVD,

\VRiSim\Install_VRiSim.exe

Or downloaded at VRInsight's web-page, http://www.vrinsight.com/devel_shot

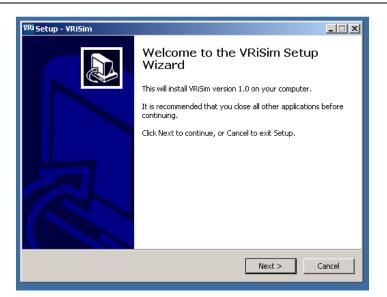
Step 1. Run Base-Package Installer

Run base-package installer "Install_VRiSim.exe" by double clicking.



Install_VRiSim.exe

Press Next button on VRiSim setup wizard window



Step 2. License Agreement

Read License Agreement and check "Accept agreement" radio button. Then press "Next" button to precede installation.

VRi Setup - VRiSim	
License Agreement Please read the following important information before continuing.	
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.	
SerialFP2 License =================	-
Except where otherwise noted, all of the documentation and software included in the Inno Setup package is copyrighted by VRinsight.	
Copyright (C) 2008 VRinsight. All rights reserved.	
This software is provided "as-is," without any express or implied warranty. In no event shall the author be held liable for any damages arising from the use of this software.	•
 I accept the agreement 	
C I do not accept the agreement	
< Back Next >	Cancel

Step 3. Select Destination Location

Keeping default destination location of installed folder is highly recommended. Press "Next" button.

VRi Setup - VRiSim
Select Destination Location Where should VRISIM be installed?
Setup will install VRiSim into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files (x86)\WRInsight Browse
At least 11.4 MB of free disk space is required,
< Back Next > Cancel

Step 4. Select Menu Folder

Select Menu folder name as default "VRInsight" and press "Next" button.

VRi Setup - YRiSim
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder. To continue, click Next. If you would like to select a different folder, click Browse.
WRInsight Browse
< Back Next > Cancel

Step 5. Create a desk-top icon

Check "Create a desk-top icon". **VRiSim** icon will be created after installation. Press "Next".

VRi Setup - VRiSim
Select Additional Tasks Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing VRiSim, then click Next.
Additional icons:
Create a desktop icon
< Back Next > Cancel

Step 6. Ready to install

Now ready to install VRiSim. Review installation setting and press "Install" button.

VRi Setup - VRiSim	
Ready to Install Setup is now ready to begin installing VRISim on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:₩Program Files (x86)₩VRInsight	<u> </u>
Start Menu folder: VRInsight	
Additional tasks: Additional icons: Create a desktop icon	
۲. <u>۲</u>	
< Back Install	Cancel

Step 7. Installing

Files are extracted and copied into destination folder during installing step. Animated bar-graph is showing installing process.

VRi Setup - VRiSim	
Installing Please wait while Setup installs VRISIm on your computer.	
Extracting files C:\Program Files (x86)\VRInsight\Drivers\CDM20814_Setup.exe	
	Cancel

Step 8. Information

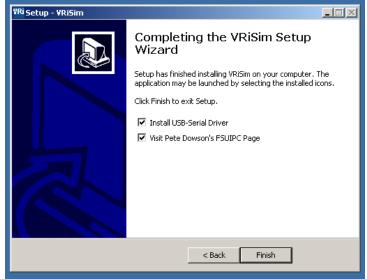
Read this information of sales and tech-support e-mail address, VRinsight's website. Press "Next" button.

YRi Setup - YRiSim	_ _ X
Information Please read the following important information before continuing.	
When you are ready to continue with Setup, click Next.	
SerialFP2:Flight Simulation Cockpit Panel	-
VRinsight for your dream supplier! Contact <u>http://www.VRinsight.com</u> Sales Support: sales@vrinsight.com Tech Support: tech@vrinsight.com Tel: +82-31-284-7090	
HISTORY	
Release Sep.,18,2010 - New Serial port driver from FTDI Chips, CDM 2.08.02 - "PCT", Prop-Cockpit-Trainer software, * Speed-Up response time * Fixes irregular reactions of yoke and flaps	T
Next >	

Step 9. Install USB-Serial Driver

VRInsight's flight panel is connected to PC's USB port and communicated via serial port. By check "Install USB-Serial Driver", the driver software will be installed automatically at the finishing phase of installation procedure. The USB-Serial Driver

Copyright ©2012 **VRin/ight** www.vrinsight.com can be installed separately to the **VRiSim** installation. Optionally, visit Pete Dowson's web page to get latest version of FSUIPC modules.



NOTE: Install device specific module

The base-package installer only installs basic utilities; "VRiSim" and "Panel Installer". Additionally device specific module must be installed. These installers are found in the supplied DVD under the folder named "\VRiSim". Or downloaded at VRInsight's web-page, http://www.vrinsight.com/devel_shot

3. Prop Cockpit Trainer module Installation

Prop Cockpit Trainer module is divided into three modules ; "Install_ProPit.exe", "Install_Radio-Stack.exe" and "Install_PCTSP.exe"

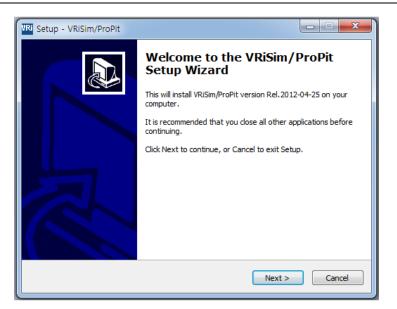
The three module installers can be found in the supplied DVD, Or downloaded at VRInsight's web-page, http://www.vrinsight.com/devel_shot

Step 1. Run ProPit Installer



Run "Install_ProPit.exe" Install_ProPit Press Next button on VRiSim/ProPit setup wizard window

Copyright ©2012 **VRin/ight** www.vrinsight.com



Step 2. License Agreement

Read License Agreement and check "Accept agreement" radio button. Then press "Next" button to precede installation.

R Setup - VRISIm/ProPit
License Agreement Please read the following important information before continuing.
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
VRiSim/SerialFP2 License
Except where otherwise noted, all of the documentation and software included in the Inno Setup package is copyrighted by VRinsight.
Copyright (C)2012 VRinsight. All rights reserved. This software is provided "as-is," without any express or implied warranty. In no event shall the author be held liable for any damages arising from the use of this software.
◯ I accept the agreement
I do not accept the agreement
< Back Next > Cancel

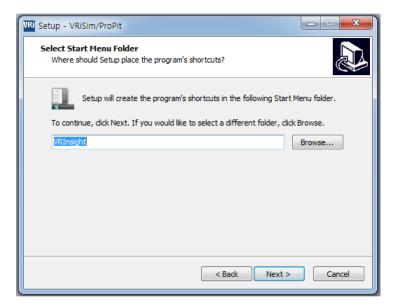
Step 3. Select Destination Location

Keeping default destination location of installed folder is highly recommended. Press "Next" button.

TRi Setup - VRiSim/ProPit	
Select Destination Location Where should VRISim/ProPit be installed?	
Setup will install VRiSim/ProPit into the following folder.	
To continue, dick Next. If you would like to select a different folder, dick	Browse.
C:₩Program Files (x86)₩VRInsight	Browse
At least 10.7 MB of free disk space is required. 	Cancel

Step 4. Select Menu Folder

Select Menu folder name as default "VRInsight" and press "Next" button.



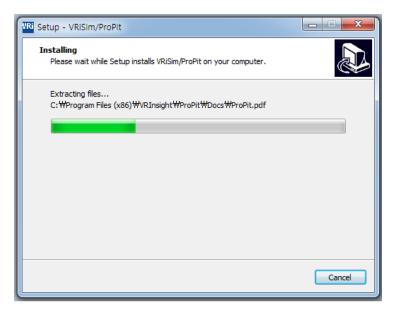
Step 5. Ready to Install

Now ready to install **Prop Cockpit Trainer** module. Review installation setting and press "Install" button.

TRi Setup - VRiSim/ProPit	
Ready to Install Setup is now ready to begin installing VRISim/ProPit on your computer.	
Click Install to continue with the installation, or click Back if you want to re change any settings.	eview or
Destination location: C:₩Program Files (x86)₩VRInsight Start Menu folder: VRInsight	*
٨	т Б
< Back Install	Cancel

Step 6. Installing

Files are extracted and copied into destination folder during installing step. Animated bar-graph is showing installing process.



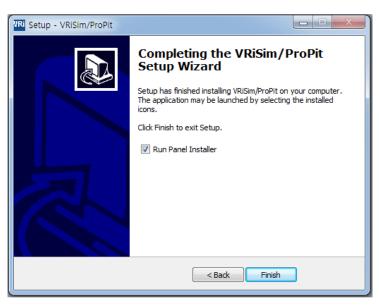
Step 7. Information

Read this information of sales and tech-support e-mail address, VRinsight's web-site. Press "Next" button.

VRI Setup - VRISim/ProPit	
Information Please read the following important information before continuing.	
When you are ready to continue with Setup, dick Next.	
VRiSim:Flight Simulation Cockpit Panel	
VRinsight for your dream supplier! http://www.VRinsight.com Download latest version:	
http://www.VRinsight.com/devel_shot	
Contact Sales Support: sales@vrinsight.com Tech Support: tech@vrinsight.com Tel: +82-31-284-7090	
Next >	

Step 8. Complete Prop Cockpit Trainer module setup

Prop Cockpit Trainer module setup is done. Optionally, run "**Panel Installer**" to configure the aircraft.



Step 9. Install "Install_Radio-Stack.exe" & "Install_PCTSP.exe".

To complete module installation, follow the step $1 \sim 8$ for "Install_Radio-Stack.exe" & "Install_PCTSP.exe".

Copyright ©2012 **VRin/ight** www.vrinsight.com

4. Connecting VRInsight's Flight Panel/Re-install driver software

Plug **Prop Cockpit Trainer** USB connector into PC's USB port. As new device is connected to PC, it'll try to install device driver software.



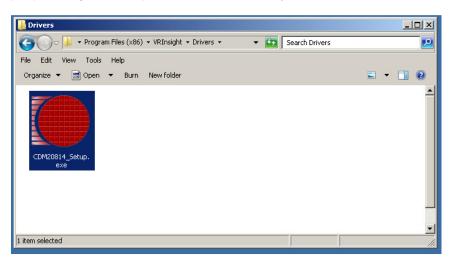
Already the driver software was installed during **VRiSim** software installation, the new device is recognized as "USB Serial Port(COMx)". Following picture is an example of success message for the new VRinsight's flight panel hardware that is recognized as COM3.



When it fails to install driver software, re-install driver software.

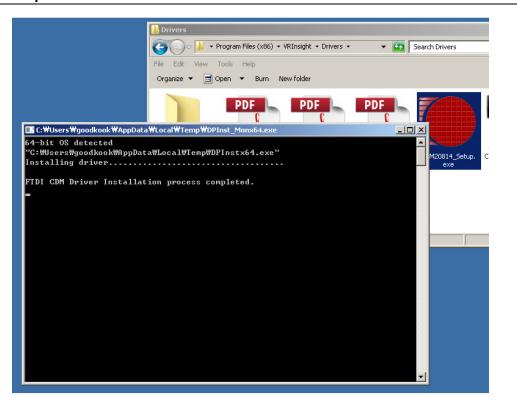


USB-Serial port driver software can be re-installed separately to the **VRiSim** software installation. Driver installer can be found where the **VRiSim** is installed (i.e. C:\Program Files (x86)\VRInsight\Drivers). It is "CDM20XXX_Setup.exe" named with software version.



Re-installation of USB-Serial driver is simply to run this installer. Disconnect all VRInsight's flight panel from the PC before running the driver software installer. Temporarily a window is prompted showing "Installing driver......" and ended with completion message. This prompted window will be closed as its completion.

Copyright ©2012 **VRin/ight** www.vrinsight.com



As the driver software installation is done, connect VRinsight's panel to PC's USB port. The VRi panel will be recognized successfully as Serial Port(COMx). Serial port's COM number would be varied to the PC's hardware configurations. Recognized serial port and its COM number for the panel can be confirmed via "Device Manager".



When it's listed as unknown device or exclamation mark on the USB serial port device, reinstall the driver software.

5.Run VRiSim Software

VRiSim is managing software for VRinsight's Flight panel application. It interfaces between **Prop Cockpit Trainer** and Microsoft's Flight Simulator.

Run **VRiSim** by double-clicking the icon on desk-top.



Multiple VRi's flight panel hardware can be managed with single **VRiSim** instance. When **VRiSim** is launched for the first time, it tries to find all VRinsight's devices connected. Searching procedure could take several minutes.

Searching VRi Devices

Following three messages would be displayed as all three devices are found and connected successfully,

VRi Device Found: ProPit

VRi Device Found: Prop Control Box

VRi Device Found: Inst.RadioStack

Following picture shows 3 devices ; **ProPit, Prop Control Box** and **Inst.RadioStack**, are found and connected to **VRiSim**. Each device is listed as separated tab.



By clicking device tab, VRi Flight Panel's connected information can be checked.

VRiSim: 3-Devices Found!	_ _ _ X
	Re-Scan VRi Device ±
Main ProPit Prop Control Box Inst.R	adioStack
Port: COM11 Type: ProPt	Version: 1.000
Carenado Cessna C182RG (FSX)	•
Microsoft Cessna C172 (FS9)	<u> </u>
Microsoft Cessna C172 (FSX)	
Microsoft Cessna C182 (FS9)	
Carenado Cessna C182RG (FS9)	
Carenado Cessna C182RG (FSX)	
Microsoft Mooney Bravo (FS9)	
Microsoft Mooney Bravo (FSX)	
Microsoft Bell 206B (FS9)	- jual
Microsoft Bell 206B (FSX)	

When any device that is already connected to PC's USB port but it is not listed with device tab, try re-scan VRi device. This re-scan procedure would take several minutes. Found and connected device list will be saved for the next flight.

ſ	VRISIm: 2-Devices Found!	
l		Re-Scan VRi Device 🛨

The base-package installer has only **VRiSim**. If additional device specific module is NOT installed, aircraft selection box will be blanked as showing message "NO AIRCRAFT LISTED".

	l	,	1	I	
NO A	IRCRAFT	LISTED			•

Additionally device specific module should be installed. Then, supported aircrafts are listed in the aircraft selection box. Device specific module installer is supplied with DVD or can be downloaded at the VRInsight's web-page.

Drop down aircraft selection box to select an aircraft to fly with a flight panel listed.

W?	VRiSim: 3-Devices Found!	_ 🗆 🗙
	Re-Scan VRi D	evice 🛨
	Main ProPit Prop Control Box Inst.RadioStack	
	Port: COM11 Type: ProPt Version: 1.000	
	Carenado Cessna C182RG (FSX)	•
	Microsoft Cessna C172 (FS9)	
	Microsoft Cessna C172 (FSX)	
	Microsoft Cessna C182 (FS9)	
	Carenado Cessna C182RG (FS9)	
	Carenado Cessna C182RG (FSX)	
	Microsoft Mooney Bravo (FS9)	
	Microsoft Mooney Bravo (FSX)	2.
	Microsoft Bell 206B (FS9)	Hal
	Microsoft Bell 206B (FSX)	<u> </u>

Aircraft must be selected in the each device tab. Then, press "Fly now!" button. When aircraft is NOT selected for the device, following message is displayed in the Main tab. Once aircraft is selected, the selection is saved for the next flight.



Microsoft's Flight Simulator must be running before pressing **VRiSim**'s "Fly Now!" button. Otherwise, following message will be displayed in the Main tab.

📽 VRiSim:	3-Devices Found!	×
	Re-Scan VRi Device	ł
Main	ProPit Prop Control Box Inst.RadioStack	
	Flight Simulator is NOT running	
	Run Flight Simulator and Cockpit in Press "Fly now!" when ready	
,	(c)2012 VRInsight	
	Release. 2012.11.21	
VR <mark>e</mark> in	Fly now!	

To exclude a device to fly with the aircraft, un-check the box titled "Use this device" in the device tab. This box is un-checked if device specific module software is not installed and no aircrafts are listed.

✓ Use this device

By checking and/or un-checking the boxes in the "Test & Debug", commands and messages between **VRiSim** software and the panel hardware are monitored as debugging purpose. To do this, fly a configured aircraft by the **Panel Installer** in "Flight Simulator 2004" / "Microsoft Flight Simulator X" and run **VRiSim**.

Test & Debug		
Read 🗵 HDGBUGS-	Write 🖻	Т

Panel Installer

1. What is "Panel Installer"

To make VRi's flight panel work with MSFS aircrafts, aircraft's panel configuration file, *panel.cfg*, and related initialization file, **.ini*, need to be modified. When this process is not done properly, Prop Cockpit Trainer will not work. "**Panel Installer**" do this modification properly.

With **Panel Installer**, when you select proper path, product, aircraft, this process will be a piece of cake.

VRinsight's Panel/Aircraft Setup for FSX			
-1:MSFS-Root Pa C:₩Program Fi		Games Microsoft Flight Simulat	or 2 Browse
-2:VRinsight Pane		Cessna C172(FSX)	-4:Run Install
Status Panel Installation for the aircraft Success 5 See folder where the aircraft is installed			
		ОК	

- 1. **MSFS-Root Path:** Browse the path where "Flight Simulator 2004" or "Microsoft Flight Simulator X" is installed.
- If "Flight Simulator 2004" or "Microsoft Flight Simulator X" is installed other "Drive" or "Directory", find the path and click "OK".
- If you select a wrong path, "Status" window displays error message.

VRinsight's Panel/Aircraft Setup-MSFS NOT Found		
1:MSFS-Root Path C:₩Program Files (x86)₩Microsoft Games₩Microsoft Flight Simulator : Browse		
2:VRinsight Panel 3:Aircraft 4:Run Select Panel T Status		
MSFS Folder NOT Found		
Please specify MSFS Install Folder		
ОК		

Browse for MSFS Root Path	×
 KeySharp Iaunten LGDacom MarkAny mggikrjef Microsoft Games Microsoft Flight Simulator X Addon Modules Addon Scenery Autogen Categories Charts 	•
Config Dialogs	•
OK Cancel	

NOTE : Even if the default **MSFS-Root Path** of the **Panel Installer** shows the same folder as yours, press **Browse** and press "**OK**"

- 2. VRinsight panel: Select Prop Cockpit Trainer.
- 3. Aircraft: Select your aircraft.
- 4. Run: Copy & paste all necessary panel data to work Prop Cockpit Trainer automatically.
- 5. Status: Inform current status.

2. How to start "Panel Installer"

Run "Panel Installer" that can be found in the program group "VRInsight".

- A. Go to Windows "Start"
- B. Find program group "VRinsight"
- C. Click "Panel Installer"

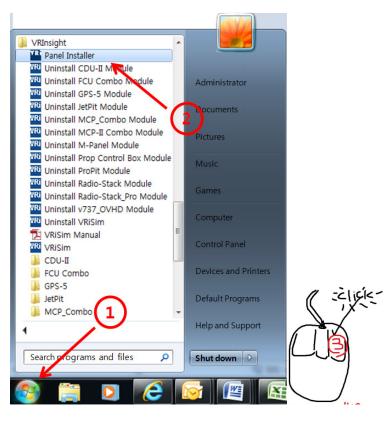
IMPORTANT NOTE: <u>"Run As Administrator"</u>

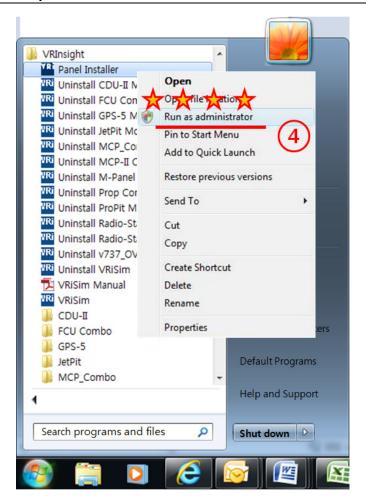
Windows 7 and Vista has more intensive security policy for system safety from accidental corruption of system files. A user can't access system folder (i.e. "Program Files", "Windows") for reading and writing, even if he/she has administrator's privilege. To access these folders, he/she must be "Administrator".

"**Panel Installer**" or "**VRiSim**" try to access system folder to know where FSX/FS 2004 is installed. But it could be blocked if it's not "Run As Administrator". So, please do as following procedure to run software,

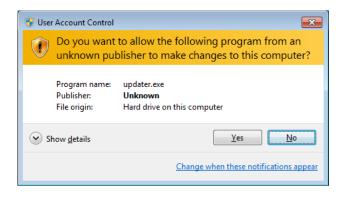
- (1) Go to "Start" and find program group "VRInsight"
- (2) Place mouse pointer upon "Panel Installer"

- (3) Click right mouse button
- (4) Click "Run As Administrator"





You'll see a UAC message if you try to "run as administrator". Press "Yes" to allow the software running.

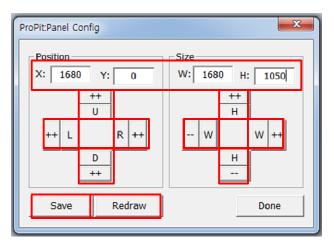


Want to know more about UAC (User Account Control)? http://en.wikipedia.org/wiki/User_Account_Control

Window configuration

When the first **Prop Cockpit Trainer** setup is done, the **undocked Prop Cockpit Trainer window** may not be placed at the **Prop Cockpit Trainer**.

Then with **Prop Cockpit Trainer:Panel Config** window, you can adjust placing the undocked **Prop Cockpit Trainer** window.



Х, Ү	Current position of gauges display window
++ U	Moves gauges display window to up
++ D	Moves gauges display window to down
++L	Moves gauges display window to left
++ R	Moves gauges display window to right
W, H	Current size of gauges display window
++ H	Expands in up & lower gauges shape
H	Reduces in up & lower gauges shape
++ W	Expands in left & right gauges shape
W	Reduces in left & right gauges shape
Redraw	Execute current settings
Save	Save all settings.

NOTE: The size (W & H) is the resolution of **Prop Cockpit Trainer** monitor and the Position (X & Y) is the position of **Prop Cockpit Trainer** monitor. You can find the values in **Screen resolution**.(Refer to **5. Monitor setting**)

Calibration & Test for Prop Cockpit Trainer (PCT) Flight Control Box

VRinsight Tech Support Team 2010-May-25

http://www.vrinsight.com

0 0 PROP COCKPIT TRAINER 0 1 1990 12299 1 10,60 0 00 3 S 3 0.3 OOOKT OOBISNM T NL+ 85 08 IEX. CUR ME 06 MA R. 10 MC 00 vei Flight Control Box

PROP COCKPIT TRAINER

This document explains how to calibrate and test the PCT's Flight Control Box.

Preliminary Running Flight Simulator and running VRiSim

Step 1: Run Flight Simulator (MSFS9 or FSX)

Flight Simulator (MSFS9 or FSX) must be running and the aircraft which configured through the panel installer should be running. The view mode should be changed to "**Cockpit**".

Step 2: Run VRiSim

Run **VRiSim** (the interfacing software between PCT hardware and MSFS). Three devices (ProPit, Prop Control Box and Inst.RadioStack) are found and connected automatically. If the devices are

VRin/ight Prop Cockpit Trainer & 2S

connected successfully, select an aircraft and check "Use this device". And then press button titled "Fly Now".

Step 3: Load "Calibration and Test" Window

The "Calibration & Test" window will be loaded, when pressing the "Fly Now".



Calibration and Test Procedure

Step 1: Press button "Test & Calibrate".

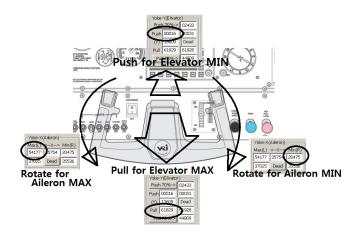
The PCT-Flight Control Box (PCT-FCB) has switches, levers and a Yoke. As it goes to calibration phase, all axes will be initialized to null values. The Yoke(X/Aileron and Y/Elevator) and levers (Throttle, Prop-Pitch, Mixture and Flaps) should be calibrated and re-configured. Switches will be tested as functioning correctly.

PCT-Panel Test & Calibration		X
MAGNETOS Master Pump Light Switches BCN LND TXI NAV ST Poke-X(Aileron) Yoke-X(Aileron) Max(L) <x> Min(R) 35925 35846 35445 TBD Dead TBD Pump Light Switches BCN LND TXI NAV ST Pump Pump Pump Light Switches BCN LND TXI NAV ST Pump</x>	Pitot Avionics Pitch Trim TB DN UP Levers Throttle Prop Mixture Push/MAX 03355 56163 57963 (Value) 03040 55086 56870 Pull/MIN 02387 53855 56285	Fuel Sel BOTH L R Plap Lever Flap 1 FLAP 1 FLAP 3 -MAX-
Save	Check Out	Cancel

IMPORTANT: Axes values should be displayed as Yoke and Levers are moved. When it does NOT display any values in the red-box of above picture, press "Cancel". And then reload "Calibration & Test" window.

Step 2: Calibrate yoke's aileron and elevator axis

To set the maximum & minimum value of yoke's Aileron and Elevation, fully rotate and push forward / pull backward. See axis' sampled values while yoke is moving.



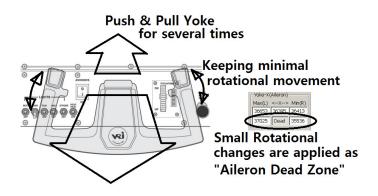
Step 3: Configuring "Dead Zone" for Yoke-X (Aileron)

Configuring "Dead Zone" for yoke's axis is possible. It also set yoke's center position.

- Press "Dead" button of Yoke-X (Aileron). As far the button is shown as pressed status yoke's rotational movement is applied as Aileron "Dead-Zone".
- Push and Pull the yoke for several times without rotation. See changing values of dead zone MIN/MAX. Small rotational movements are applied to "Dead Zone" of aileron axis.

Dead

- To end dead-zone setting, press "Dead" button again seeing un-pressed status

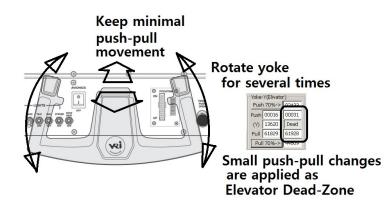


Step 4: Configuring Dead Zone for Yoke-Y (Elevation)

- Press "Dead" button of Yoke-Y (Elevation). As far the button is shown as pressed status

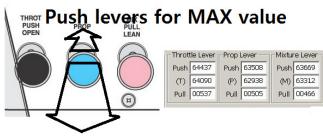
, yoke's push-pull movement is applied as Elevator "Dead-Zone".

- Rotate the yoke for several times without push-pull. See changing values of dead zone MIN/MAX. Small push-pull movements are applied to "Dead Zone" of elevator axis.
- To end dead-zone setting, press "Dead" button seeing un-pressed status .



Step 5: Setting MIN/MAX for Throttle, Mixture, Prop-Pitch Levers

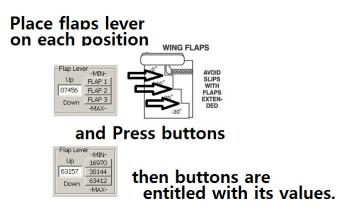
MIN and MAX values for the levers are memorized by fully pushing and pulling.



Pull levers for MIN value

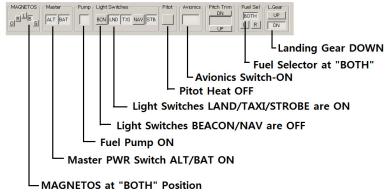
Step 6: Wing Flaps control positions

There are three steps for flap control. Set the values for each flap position as follows,



Step 7: Test switches

Turn on and off each switch hardware and see functioning correctly on the software.



Each switch and Lever should be proper position before flight.

P

T-Panel Test & Calibration	<u>×</u>
MAGNETOS Master Pump Light Switches B ALT BAT BCN LND TXI Yoke-X(Aileron) Yoke-Y(Elivator) Max(L) <-X> Min(R) Push/MIN 11792 11944 36201 35715 35420 [Y] 12043 Dead 95911 Dead 35722 Pull/MAX 12214 12051 RX Commands(GP & RS)	Pitot Avionics Pitch Trim Fuel Sel L.Gear AV STB DN DN BOTH UP UP DN Levers Throttle Prop Mixture Flap Lever -MIN- Push/MAX 60331 60833 61105 -MIN- 103295 FLAP 1 Q3295 FLAP 2 Down FLAP 3 -MAX-
Save	Check Out Cancel
Pre-Flight Check MAGNETOS OFF MASTER ALT OFF MASTER BAT OFF Fuel Pump OFF LIGHT BCN OFF LIGHT LND OFF LIGHT TXI OFF LIGHT NAV OFF LIGHT STB OFF PITOT HEAT OFF AVIONICS OFF FUEL SEL BOTH LANDING GREAR DOWN	YOKE/AILERON AT CENTER YOKE/ELEVATOR AT CENTER THROTTLE MIN(PULL) PROP MAX(PUSH) MIXTURE MAX(PUSH) FLAPS RETRACTED(UP)

"Check Out" button checks switches and levers are positioned well in its "Pre-Flight". Otherwise, it will show a message. This pre-flight check-out can be skipped by pressing "Cancel" button.

PCT-Panel Test & Calibration	×
MAGNETOS Master Pump Light Switches Pitot Avioni O R B ALT BAT B Prop-Cockpit-Trainer X Yoke-X(Aileron) Yoke-Y(Elivs Yoke-Y(Elivs Set MAGNETOS to OFF Position 36211 35823 35400 [Y] I 35911 Dead 35722 OK	
RX Commands(GP & RS) Save Check Ou	

Step 8: Save Calibration Result

Press "Save" button Save the calibration result which can be used for the next flight. DO NOT save before calibration completed. Dead zone of Yoke's X and Y axes and flap position should be configured exactly!

Foot raiser kit

PCT(Prop-Cockpit-Trainer

Foot Raiser Kits

To give enough rooms between floor and PCT's lower box, Foot Raiser Kit is supplied. It eases controlling rudder-pedal.

The Kits includes 4 raisers elevating 10.5cm(4.1") and Bolts & nuts.



Assemble the raiser to PCT's lower box and put in foot. Join the raisers and foot using bolts & nuts for the safety.

