FSUIPC4: Application interfacing module for Microsoft Flight Simulator X

... *and* Microsoft ESP ... *and* Lockheed-Martin's Prepar3D v1.4 and v2.0

Flight Simulator Universal Inter-Process Communication 4
by Pete Dowson, © 12th January 2014

Support Forum: Pete Dowson's Support Forum

INSTALLATION and REGISTRATION GUIDE

Version 4.928 of FSUIPC4.dll

Note: All my Windows based software is always available in the latest versions from http://www.schiratti.com/dowson**.** (Selected modules are also available elsewhere).

This is *not* my web site (I have none) but the list is there courtesy of Enrico Schiratti

Contents of package (and where to find things)

As well as the document you are now reading, and a document listing recent changes, this package contains "**FSUIPC4_Loader.dll**" and "**Install FSUIPC4**.exe".

NEW: The Loader DLL is an optional component which *may* help get passed the strange SimConnect crashes after initially installing FSUIPC4. If you've had these before, then try copying the FSUIPC4_Loader.DLL into the FS Modules folder *before* running the Installer. Alternatively you could run the installer, try loading FS, and if that fails, *then* copy the loader across and re-run the Installer. This process will ensure that the file which tells SimConnect to load things (DLL.XML) contains the correct name.

WARNING: One user has reported that the Loader somehow stops the Digital Aviation Fokker Autopilot working correctly. So try without the loader first!

The Installer itself will install all of the following parts in the FS **Modules** folder (which will be created if necessary), and a subfolder within this called **FSUIPC Documents:**

FSUIPC4.dll	The FS module itself, version 4.928 (in the Modules folder)

For Prepar3D (versions 1.3 and 1.4) only:

	SimConnect.P3D.dll	A SimConnect interface for FSUIPC4 only.
or	SimConnect.P3D2.dll	A SimConnect interface for FSUIPC4 only (P3D version 2).

and these in the **Modules\FSUIPC Documents** folder:

FSUIPC4 User Guide.pdf	The user manual, in Adobe Acrobat format
FSUIPC4 History.pdf	A list of changes in each version (Acrobat format)
FSUIPC4 for Advanced Users.pdf	More technical information only (Acrobat format)
List of FSX Controls.pdf	FSX controls list (Acrobat format)
FSUIPC Lua Plug-Ins.pdf	Introducing the powerful Lua plug-in facilities
FSUIPC Lua Library.pdf	Documentation for the additional FSUIPC Lua libraries
Example Lua Plugins.zip	A zip file containing some short Lua examples
Lua license.pdf	A copy of the Lua licensing agreement
FSUIPC4 Offsets Status.pdf	Includes offset lists, for use in Offset controls and Lua plug-ins
Offset Mapping for PMDG 737NGX.pdf	List of offsets to access 737NGX data

For other bits and pieces, like TrafficLook and WeatherSet, please visit my Support Forum. You will also usually find interim versions and bug fixes there—well worth a regular scan. The link is shown above, in the subtitles.

If you want programming details you need to get the FSUIPC4 Developer Kit, (SDK). Currently this is composed of the FSUIPC SDK from http://www.schiratti.com/dowson plus supplementary documents and updates from the SDK link in the "**Updates ...**" Announcement on the Support Forum.

The following pages provide full instructions on Installing and/or Registering FSUIPC4, and Registering WideFS7

Installation

Before trying to install FSUIPC4 you must have actually run FSX at least once. If you have not yet run FSX, do so first. This is necessary because certain essential files are not created until you have done so. The same applies to ESP, and Prepar3D.

> Note that if you have both FSX and ESP installed on your PC, the Installer will install FSUIPC4 in both. Also Prepar3D. If you are a user of the now-discontinued ESPIPC.DLL you should delete that and its ancillary files from the ESP Modules folder, and remove the ESP entry from the DLL.XML file manually. The FSUIPC4 installer cannot clean up your earlier manual settings for ESPIPC.
>
> The rest of this document will talk only about FSX, but please read that to also mean ESP if you are an ESP user and Prepar3D if you are a Prepar3D user.

For the installation, you probably need elevated administrator privileges. This didn't use to be the case—all installers got such privileges automatically—but Microsoft tightened up security significantly and now it seems only their own style of Installer (msi files) are automatically treated correctly.

Place the “Install FSUIPC4.exe” program onto your desktop, or into a temporary folder, and right click on it, selecting "**run as ... Administrator**". This method allows it to run with sufficient privilege..

This will do several things, in order:

(Note that for "FSX" you can also read "ESP" or "Prepar3D", or even all three, one after the other)

1. Checks that you have sufficient Administrative privileges to perform the installation successfully. If not it will prompt you to re-run "as administrator", or even re-log onto Windows as the administrator too.
2. Finds your FSX installation: It will do this by checking the Registry. If, for some reason, the Registry is not pointing correctly to your FSX installation the installer will present you with a standard Explorer type window and ask you to locate FSX.EXE, the actual FSX main program. (If you do this, the installer will also offer to fix the Registry entry for you. That option will occur later, but only if the rest of the installation proceeds correctly).
3. Checks the version of FSX.EXE: FSUIPC4 will not install if the version of FSX does not match the version (or one of the versions) for which this release was built.
4. Checks the versions of SimConnect available (yes, there can be more than one—there should be three if your FSX is completely up to date). If none match the encoding used by this version of FSUIPC4, the installer cannot continue.
5. Checks for existing FSUIPC4: If there is already a Modules folder in the FSX installation, and that folder contains a version of FSUIPC4 later than the one being installed, the latter will not install. Otherwise the modules folder is created if necessary and FSUIPC4.DLL is copied into it.
6. Enables special permissions for the Modules folder, so that on Windows Vista the INI, LOG and KEY files can be created and updated whilst FSX is running.
7. Finds the path to your FSX.CFG file—or all of those that may be used if more than one. These are in folders related to the users of FSX. If a suitable path is not found, installation cannot be automatically completed. A vital file is needed there—DLL.XML. Without this, FSX’s SimConnect system will not load FSUIPC4.
8. Other files (documents, in fact) in the package are then copied into the Modules folder alongside FSUIPC4. These are for your reference.
9. Whilst it does this it will display what it is doing on screen, in a readable text “Log”, as shown on the next page:

10. When it has finished, if all is well, you will get a confirmatory prompt looking like this:

If anything goes wrong there will be information about this in the Log, and you will get a different prompt, telling you of the problem. If this happens, *before* clicking "Ok", scroll through the Log (there's a scroll bar on the right if the log is longer than the Window) to look for lines mentioning problems or errors or warnings. If you want help, click on the "Save As" entry in the Menu and save the log with a name such as "FSUIPC4 install.log". This will contain everything needed to help you. Just show its contents in a message to me in my Support Forum.

This complete process may repeat to cover all three: FSX, ESP and Prepar3D, if you have them all correctly installed.

Finally, the Installer offers you the chance to Register FSUIPC4 and/or WideFS7, or simply check your registration. This appears on top of the Log display:

You do NOT have to Register at this time. In this case simply click the 'Not now' button to continue.

Otherwise, first select whether it is FSUIPC4, WideFS7 or both you are registering (or checking).

The options offered are:

- Delete the previous registrations (this also lets you enter new ones). This is useful when you are changing one of the Keys in order to get your Name and Address/Email the same for both FSUIPC4 and WideFS7.
- Check the existing registrations. This will also effectively re-register you automatically if you have re-installed Windows or moved to a new PC, and have copied your previous FSUIPC4.KEY file into the FSX Modules folder already. It saves you having to re-enter the Key(s).
- Enter new registrations for FSUIPC4 and/or WideFS.

When you press 'Go ahead' you will be presented with the standard FSUIPC registration dialogue where you can enter your details and the Key. If you selected "Both" FSUIPC4 and WideFS7, you will get first one, then the other, though you will not have to enter your name and address/email twice, those will be remembered. For more about Registration see below.

Entering Registration Details

If you pay for a registration key for FSUIPC4 then you get access to all the facilities it provides. The 12-character key you will purchase is inextricably related to the name and address (normally your email address) you used when applying for the Key. It is this information you need to enter. When you've checked the option to register FSUIPC4 in the Installer, you will be presented with a dialogue similar to the one shown on the right. Enter the details *exactly*: all three parts, the Name, Email/Address and Key need to be correct in every respect. Use cut-and-paste from the original to ensure this.

Note that it does *not* matter if your email address is changed later. It is not used as an email address, on as a means of identifying you as the license holder. The registration MUST have the same *name* in both cases, but if necessary you can actually register WideFS7 with a different email or other address.

All these details are remembered by FSUIPC4 in a file called "FSUIPC4.KEY", which is saved alongside FSUIPC4 in the Modules folder. **Save a copy of your FSUIPC4.KEY file** (from the FS Modules folder). If you change computers, or reinstall Windows, you will need to re-register, and this is made much easier if you still have that KEY file. Note that the file is actually an ordinary text file which you can read in any text editor. Keys can exceptionally be provided which expire on a certain date, or they can last forever. Normally, for full payment, an everlasting key will be provided.

WIDEFS7: WideServer registration, and WideClient

WideFS7 registration follows an identical procedure and can be done at the same time. ***Please note that your name must be identical for both,*** even if the address changes, and, in fact, both will be copied for you by the Installer. But the access key will always be different. It, too, is saved in the FSUIPC4.KEY file.

If you registered WideFS7 then in FSX its operation can be disabled and enabled using a button on the right-hand side of the first FSUIPC4 options page. You will find the parameters for WideServer in the [WideServer] section of the FSUIPC4.INI file. You will not normally need to change anything there, though you may want to experiment with different protocols (ProtocolPreferred parameter). To do this you can disable WideFS7 on the options screen, edit the INI file, then re-enable WideFS7 again.

Except for the fact that the WideServer.DLL doesn't exist separately, and the parameters are in the FSUIPC4.INI file, the documentation for WideFS7 version 7.xx is the same as for WideFS 6.xx, as included in the main WideFS.ZIP file which you can download from the usual places. Please note that any version of WideClient from 6.50 onwards is compatible with WideFS7's Server—there is no specific "version 7 WideClient"—but you are advised to use the latest available (6.86 at the time of writing, available from the Support Forum if not from the Schiratti web site).

INVALID KEY PROBLEMS

Please note that registration keys are only valid from the date of purchase. If you find your registration not working or the keys rejected, please **check that your PC has the correct date set**. It often happens that when folks install a new PC or motherboard, or even re-install Windows, the system date is left, forgotten and not corrected.

Additionally, please note that most newly purchased Keys will not work correctly with old versions of FSUIPC. You need to keep your FSUIPC up to date!

ADDENDUM: IDENTIFYING FILES IN WINDOWS EXPLORER

Recent versions of Windows Explorer have the nasty habit of hiding important parts of filenames from you. This is supposed to make things easier, but often it does the reverse. "Log" files are shown without the '.log' part and are just labelled "text files". Similarly "INI" and "CFG" files are shown with that important part omitted and just labelled "configuration settings" (if you are lucky). Even the programs themselves aren't correctly shown with the .EXE or .DLL part.

You will need to fix this at some point. In Windows Explorer, go to Tools, Folder Options, View tab, and scroll down the list. Uncheck "Hide extensions for known file types". Then, when you need to look at a log or find your settings you'll be able to identify it correctly.