

OpusFSI

Flight Simulator Interface for FSX & Prepar3D Getting Started - Single PC



February 1, 2017

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System Requirements

- Microsoft Simulator X (with SP2 or Acceleration Pack), or FSX Steam Edition, or Lockheed Martin Prepar3D simulator.
- Windows 10/8/7/XP/Vista (32 or 64-bit version) operating systems.
- Microsoft .NET Framework Version 2.
- FSUIPC4 (see note below).
- 90 MB hard disk space.

You need FSX/P3D, Microsoft .NET version 2 and SimConnect to be installed on your server (and optional client) systems for OpusFSI to work.

Microsoft.NET

You can check what versions of .NET you have installed by checking your c:\Windows\Microsoft.NET\Framework or Framework64 folders. You should see a v2.0.xxxxx folder in addition to the v4.0.xxxxx folder.

FSUIPC4

FSUIPC4 is required on the FSISERVER system. FSUIPC4 is required on Live View clients that are used to display camera views.

You can download a free copy from <http://www.schiratti.com/dowson.html>

SimConnect

In the case of SimConnect, first make sure you have installed FSX or P3D along with its SP2 or installed the FSX Acceleration version, SimConnect is usually installed automatically with it. If you have mislaid or corrupted your SimConnect then you can try re-installing it using the SimConnect.msi file within your OpusFSI folder.

Windows problem running msi files fix ...

To run a msi that doesn't have a valid Digital signature follow one of the methods mentioned below.

Method 1:

1. Right click on the file or program that you are not able to access.
2. Go to properties and click "Unblock".
3. Try to run the application again.

Method 2:

1. Click on start button.
2. Type "Internet Explorer" in the "Start Search Box" and select it from the menu.
3. Click on "Tools" in the menu bar and select "Internet Options".
4. Click on "Advanced tab" and locate "Allow software to run or install even if the signature is invalid" under the "Security" category and check the box.
5. Click Apply and then Ok.
6. Close the Internet Explorer and restart Internet Explorer.

Method 3:

1. Turn UAC OFF. Just type UAC into the start menu or Control Panel search box. Drag the slider to the bottom, never notify.
2. Run the Command Prompt in Admin Mode (not the same as you being an Admin user).
3. Type: `bcdedit /set testsigning off`
4. Reboot. Windows will power up in a test mode and will allow you to run any msi file.
5. Install the msi file. After installing the software ...
6. Run the Command Prompt in Admin Mode (not the same as you being an Admin user).
7. Type: `bcdedit /set testsigning on`
8. Reboot

After rebooting you should still be able to run msi files but may need to answer 'More Info' and 'Yes' to a Windows 10 user query.

Software Installation

Ensure Microsoft .NET version 2, SimConnect and FSUIPC4 are installed on your PC.

Installing the Demo version of OpusFSI

1. Click on the **OpusFSI Demo or Upgrade** button on our downloads webpage and download (save) the **OpusFSI.msi** file.
2. Double click on the downloaded OpusFSI.msi file and follow the instructions to install the software into the standard **OpusFSI** directory. You may install the software onto any drive provided its folder name is OpusFSI with the exception that you must not install OpusFSI in the **Opus Software, FSX, Prepar3D or Program Files** folders, and don't install in more than one folder on your PC.

Note that in Demo mode the Live Weather Engine is restricted to **160km (100 miles)** in all directions and weather updating only whilst your aircraft is **on the ground**. Also World Weather Themes are not accessible in demo mode. Demonstration mode will run for **15 minutes** with a minimum 2 minute interval required between runs.

Purchasing OpusFSI

1. Click on the **Purchase OpusFSI** button on our downloads webpage and download (save) the **OpusFSI_Flight1_Purchase.exe** file. You may get some warning messages from your virus checker at this point which is quite normal for this file type and as a result the installation window may be hidden behind your browser window.
2. If you have previously installed the Demo then uninstall it via Control Panel, Uninstall a program. Do not delete your OpusFSI folder containing your camera and system configuration files.
3. Run the **OpusFSI_Flight1_Purchase.exe** file.
4. You will now find the OpusFSI.msi installation file in your 'unwrapped' C:\Opus Software folder. N.B. You need to keep your Flight1 key and licence files on drive C in the **C:\Opus Software** folder but can move the msi file to another drive.

Double click on the OpusFSI.msi file and follow the instructions to install the software into the **OpusFSI** directory. You may install the software onto any drive provided its folder name is OpusFSI with the exception that you must not install OpusFSI in the **Opus Software, FSX or Program Files** folders, and don't install in more than one folder on your PC.

Upgrading OpusFSI

1. Click on the **OpusFSI Demo or Upgrade** link on our downloads webpage and download (save) the **OpusFSI.msi** file.
2. Uninstall the existing version prior to upgrading via Control Panel, Uninstall a Program. Do not delete your OpusFSI folder. Double click on the OpusFSI.msi file and follow the instructions to install the software. All your original configuration (DAT and CMD) and camera definition (CAM, LIM and CDF) files will remain intact (in the OpusFSI folder) but it is a good idea to take a backup of your camera files anyway in case they get corrupted (this may happen when you revert to a previous version with a different CAM format).

Installing the Beta version of OpusFSI

1. Click on the **OpusFSI Beta** link on our downloads webpage and download (save) the **OpusFSI.msi** file.
2. Double click on the downloaded OpusFSI.msi file and follow the instructions to install the software into the standard **OpusFSI** directory. You may install the software onto any drive provided its folder name is OpusFSI with the exception that you must not install OpusFSI in the **Opus Software, FSX, Prepar3D or Program Files** folders, and don't install in more than one folder on your PC.

Create Desktop Shortcuts

After installing the software we recommend you create a shortcut on your desktop for the server program. This shortcut will allow you to manually start your FSX/P3D system without too much fuss.

1. In Windows Explorer, navigate to your installation folder (OpusFSI) and right-click on the FSISERVER.EXE program.
2. Select the **Send to - Desktop (create shortcut)** option.
3. Right-click on the new desktop icon, select Properties, rename to **OpusFSI SERVER** and check the program is configured to **Start In:** your installation folder (OpusFSI). Select the compatibility tab (if available) and "Run as Administrator".

You will find alternative program icons in the OpusFSI installation folder should you wish to change the existing icon.

Automatically Selecting the Simulator Type

The FSISERVER program will accept an optional FSX, STEAM, P3D or NONE argument to automatically select the simulator type when it runs. NONE selects **No Connection To Simulator** type for the FSICLIENT only. So if you have FSX, FSX Steam Edition and/or P3D you can create desktop shortcuts, one running 'c:\OpusFSI\FSISERVER.EXE FSX' for Microsoft FSX, one running 'c:\OpusFSI\FSISERVER.EXE STEAM' for FSX Steam Edition, and the other running 'c:\OpusFSI\FSISERVER.EXE P3D' for Lockheed Martin Prepar3D.

Specifying the View Mode

FSISERVER program arguments allow you to specify the number of available view modes in the simulator (default 5). Running the program with a VM3, VM4, or a VM6 argument (e.g. FSISERVER VM4) will set the number of available view modes available within the simulator to 3, 4, or 6 respectively. The default number is 5. The number of available view modes can be determined simply by pressing the 'S' key and counting the total number of view modes that can be cycled. The normal sequence in the simulator is,

VC - Spot - Tower - Aircraft - External

Giving a total of five (5) different view modes. If you for example have the Tower view disabled, the VM4 argument can be used to reduce the available view modes and allow the correct selection of the external aircraft cameras.

The view mode may be configured manually in the Configuration dialog.

Sharing and Security

Firewall

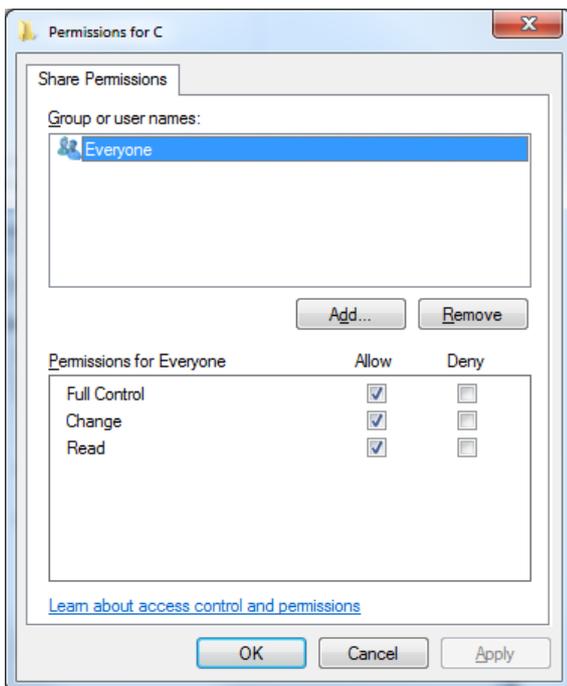
You may need to allow OpusFSI through your firewall. In **Control Panel** select **System and Security, Windows Firewall, Allow a Program or feature through Windows Firewall**. Click on **Allow another program** and browse to FSISERVER (or FSICLIENT on a client PC) in the OpusFSI installation folder.

Sharing

You may need to set sharing **and** security permissions on both your OpusFSI and your FSX (or Prepar3D) folder in order for OpusFSI to write the necessary weather files into the FSX\Weather\themes (or Prepar3D\Weather\themes) folder. This is usually necessary if you have installed the simulator in the Program Files folder, for this reason it is advisable to install FSX in a folder outside Program Files. If this does not work then set sharing and security permissions on your whole drive. Be aware that if you set permissions and sharing on the whole drive then you may have different permissions and sharing on subfolders so make sure you check the OpusFSI and FSX\Weather\themes (or Prepar3D\Weather\themes) folders.

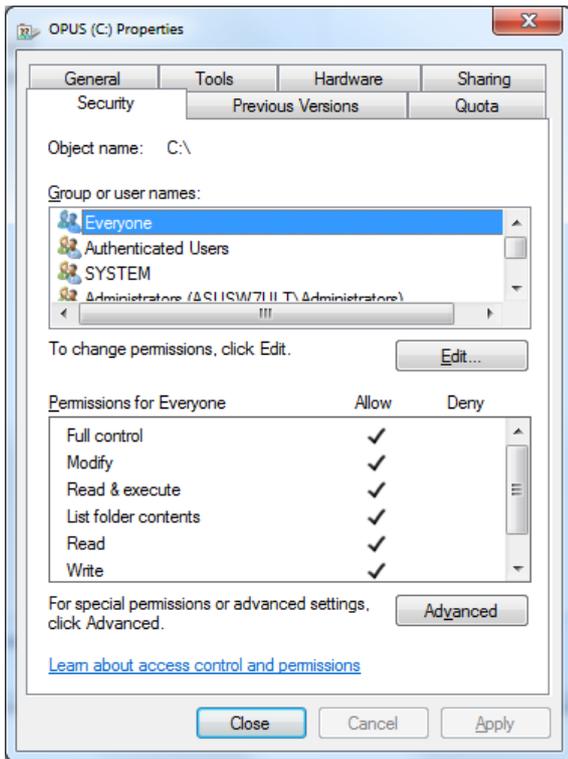
Absolute worst case, just install FSX or Prepar3D in its own folder (e.g. d:\Prepar3D), moving outside the secured Program Files folder. If OpusFSI still doesn't work correctly after setting sharing and security permissions a re-install may be necessary.

To set up *Sharing* on a folder/drive run Windows Explorer, right click on the folder/drive you wish to share, select **Properties**, select the **Sharing** tab, select **Advanced Sharing**, tick the checkbox to share the drive and enter a share name, make sure you use the single letter code, e.g. C, not 'Drive C' for instance. Click on **Permissions**, enter **Everyone** in the **Group or user names** box and tick the checkboxes to allow **Full Control** for **Everyone**.



Security

To set up *Security Permissions* run Windows Explorer, right click on the folder/drive you wish to set Security settings for, select **Properties**, select the **Security** tab, select **Everyone** in the **Group or user names** box and ensure the Permissions are **Full Control**, if not click on the **Edit** button and tick the Permissions checkboxes to allow **Full Control** for **Everyone**. If **Everyone** does not exist click **Advanced**, click **Change Permissions**, click **Add**, type in the name **Everyone** and click **OK**. Then specify Full Control for your newly created Everyone group. Click OK.



Also select **Authenticated Users** in the **Group or user names** box and tick the checkboxes to allow **Full Control**.

Installation Log File

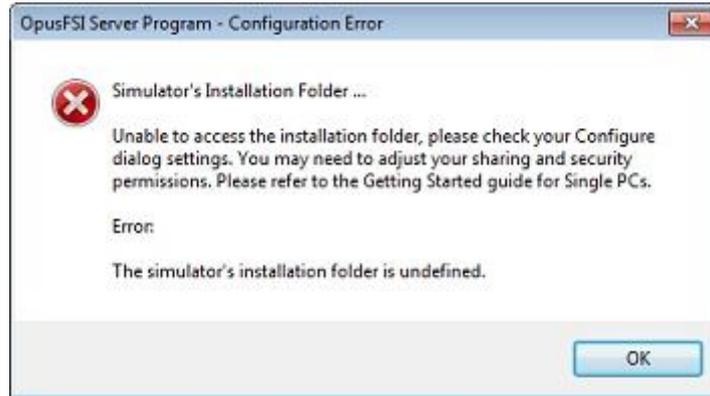
The FSISERVER program will create a **FSISERVER.log** file in the OpusFSI installation folder which will be automatically displayed if any installation errors are detected.

The log file is used to log the installation details along with any installation errors that are detected when the program is activated. Refer to this file and send it to Opus Software if there are any problems encountered when running the software.

Example content of the \OpusFSI\FSISERVER.log file ...

```
OpusFSI Flight Simulator Interface
Log Generated 24 May 2014, 11:07 Hrs
Installed Folder: C:\OpusFSI
No Errors Detected.
Installed Files:
OPUSEFSI.DLL Version: 4.0.0.7 , 24 May 2014, 07:30 Hrs
FSISYSTEM.DLL Version: 4.0.0.7 , 24 May 2014, 07:30 Hrs
FSISERVER.EXE Version: 4.0.0.7 , 24 May 2014, 07:30 Hrs
FSDECODER.EXE Version: 4.0.0.7 , 24 May 2014, 07:31 Hrs
```

Error Messages



OpusFSI tries to copy the OpusWeather.WT weather file into the FSX\Weather\themes (or Prepar3D\Weather\themes) folder and will display this error message if it cannot do this. If you see the above error message then it is essential that you check your installation folder is specified correctly in the Configuration dialog. Try reconfiguring the sim location again. If the dialog to enter the sim location does not appear then check it is not hidden behind another window and also ensure OpusFSI is set to **Run as Administrator**.

Also check your sharing and permissions, it is important to set permissions as well as sharing as described in the section above.

Initial Set Up and Configuration

Run the FSISERVER program on your FSX/Prepar3D system. The FSISERVER program **MUST** be started in its local installation folder, in other words it **MUST** be started in **OpusFSI**.

N.B. Do not run the FSICLIENT program on your server PC since it will cause FSX to freeze, it is only used on networked client PCs.

You do not need to run the flight simulator at this time since we are just going to configure the system.

Click on the **Configure** button to display the **Opus FSX Server - Configuration** dialog.

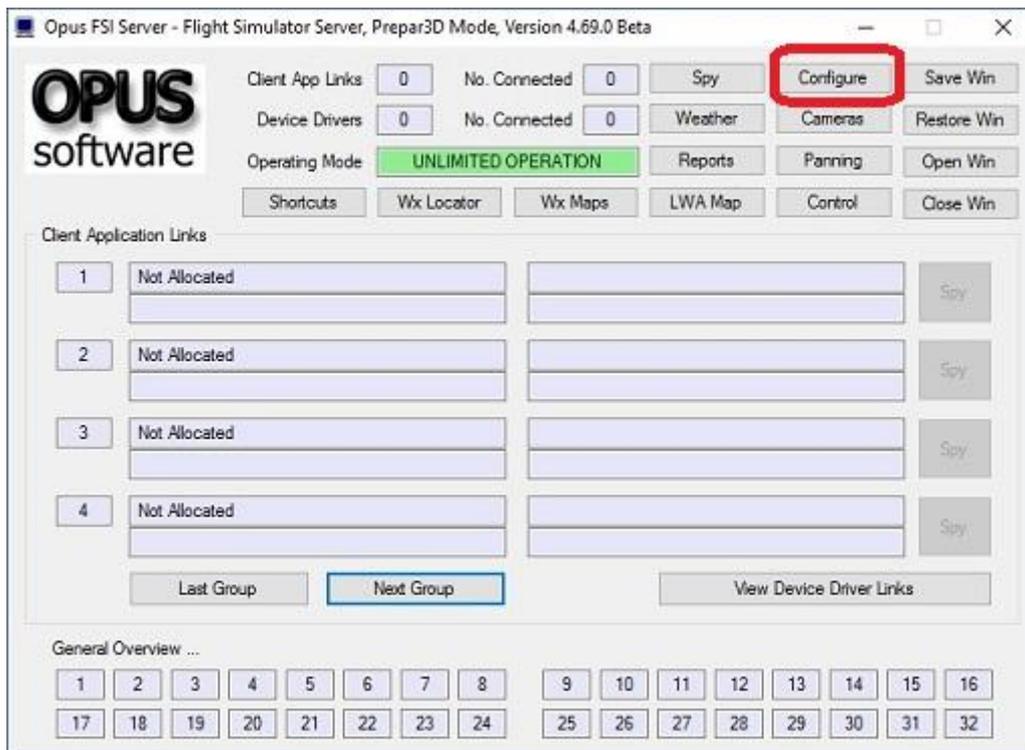


Figure 1 - FSI Server's Main Form

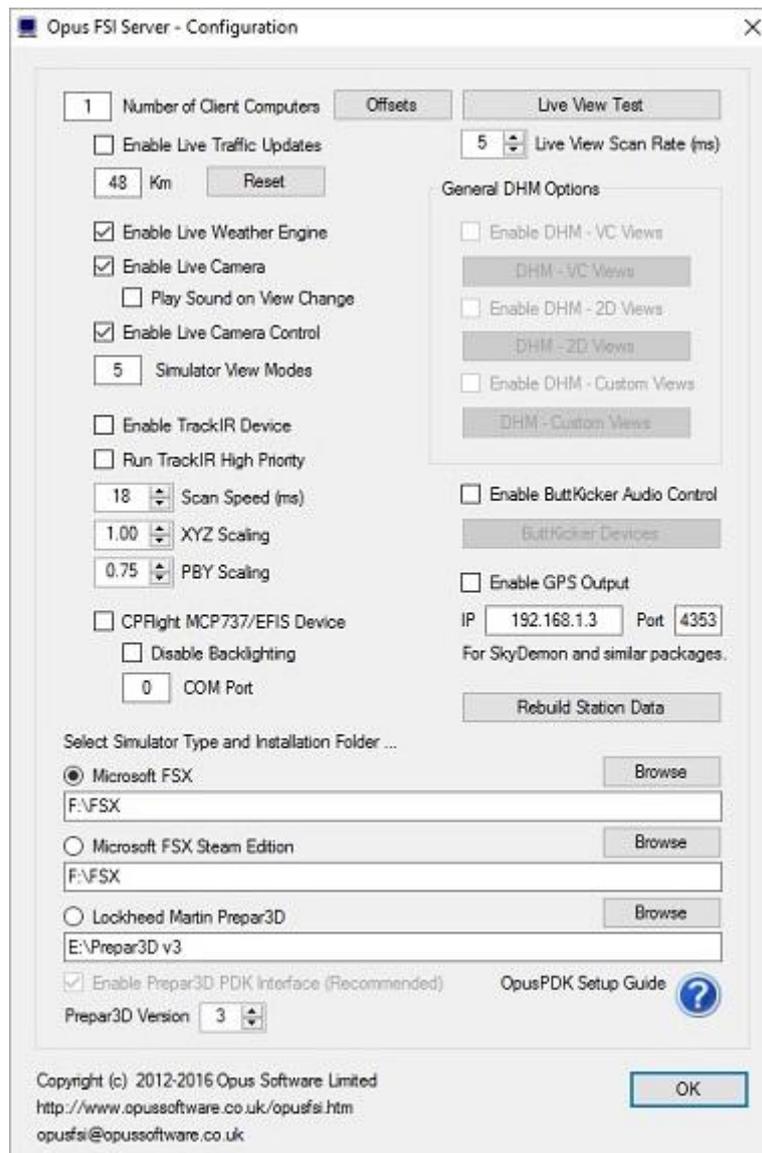


Figure 2 - FSI Server's Configuration Dialog

The number of (**Live View**) client computers should be configured to zero.

Live Traffic displays local traffic on the LWA Map and may be configured within 32km (20 miles) to 192km (120 miles) of your aircraft. Live Traffic has not yet been implemented for Live View.

Enable **Live Weather Engine** if required.

Enable **Live Camera** unless you want to control the views manually using **Live Camera Control** and use **General DHM Options**.

If you enable TrackIR please refer to the TrackIR section of this document for important initial set up and configuration details.

Enable the **CPFlight** driver if you have a CPFlight MCP737/EFIS panel and specify a COM port.

The **Live View Scan Rate** (0 to 60ms) adjustment is for networked systems and controls the position update rate communicated to the server enabling you to match the preferred rate found using the **Live View Test**.

Click on the appropriate radio button to select a flight simulator type, and click on the **Browse** button and locate your simulator installation folder. N.B. Any time you change this folder location you must restart the FSISERVER program. *If you fail to do this correctly you will be unable to select and activate any dynamic weather or weather themes.*

If you are using Prepar3D then select the **P3D Version** from the dropdown box and enable the **Prepar3D PDK Interface** to provide a more efficient Live Camera, Live Camera Control, and DHM eye point control. Refer to the OPUSPDK_SETUP text file to set up the Prepar3D OpusPDK interface. If you encounter problems (errors in the Spy window) then you can disable the PDK.

Close OpusFSI.
Run FSX/P3D.
Run OpusFSI.

Weather

Click the **Weather** button on the main server's form and enable **Adjust Options Automatically** and set your **Destination** and **Max Cruise Altitude** if known, no need to set anything else unless you wish to tweak the settings.



Figure 3 - FSI Server's Weather Options Dialog

Click OK, and you are ready to fly.

For further details please refer to the OpusFSI_Live_Weather pdf guide which can be found in the **OpusFSI** installation folder, also available from our download page.

Cameras

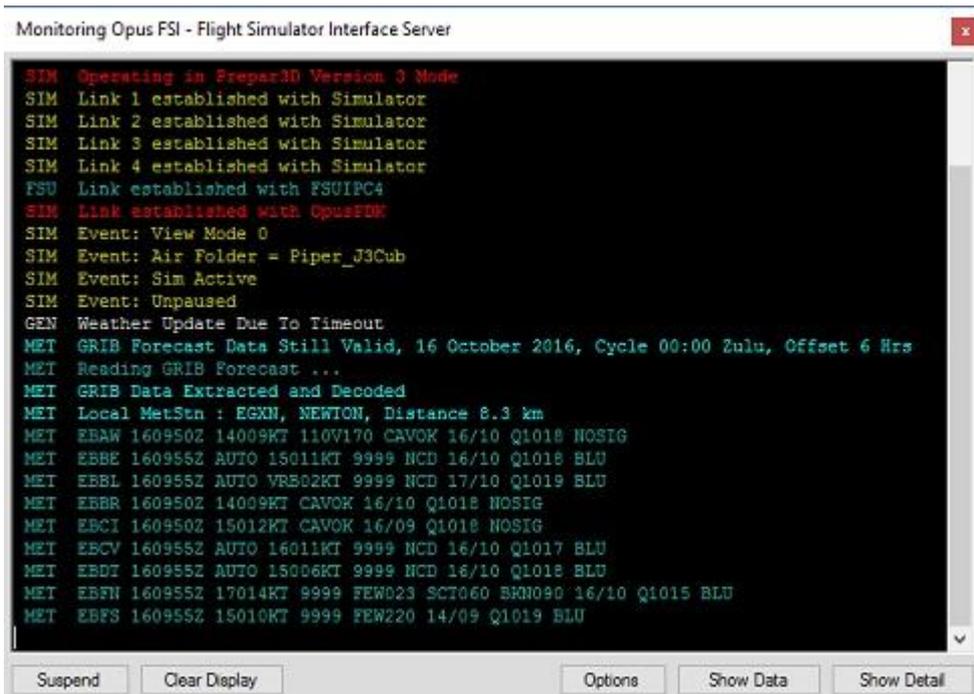
Please refer to the OpusFSI_Live_Camera pdf guide which can be found in the **OpusFSI** installation folder, also available from our download page.

Spy

If you run the simulator in windowed mode you can click on the OpusFSI server program's **Spy** button and monitor its progress. If you have enabled Dynamic Weather then you should witness the server programming initiating the live weather METAR download culminating in creating and updating the Dynamic Weather.

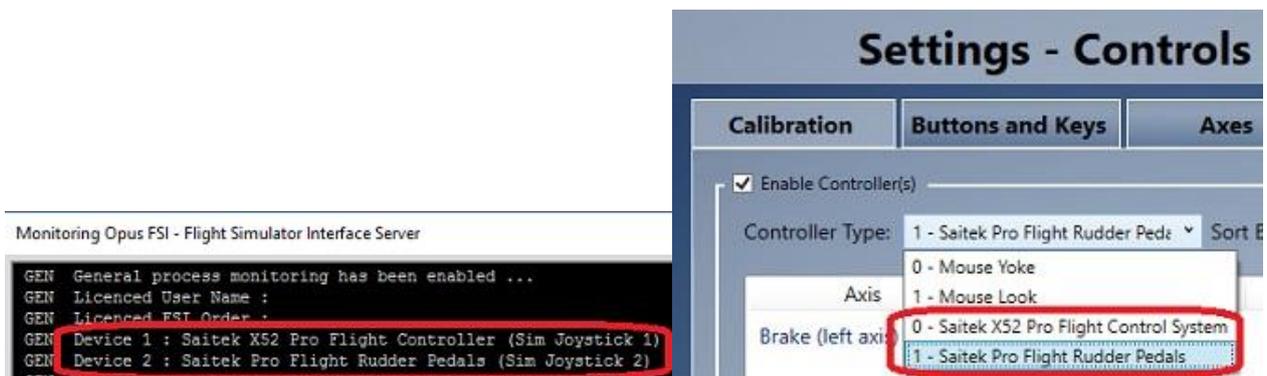
The **Options** button provides the means to specify the form's topmost, opacity, and font settings. The window can be resized.

The Spy window is automatically cleared after ten minutes.



```
SIM Operating in Prepar3D Version 3 Mode
SIM Link 1 established with Simulator
SIM Link 2 established with Simulator
SIM Link 3 established with Simulator
SIM Link 4 established with Simulator
FSU Link established with FSUIPC4
SIM Link established with OpusFSI
SIM Event: View Mode 0
SIM Event: Air Folder = Piper_J3Cub
SIM Event: Sim Active
SIM Event: Unpaused
GEN Weather Update Due To Timeout
MET GRIB Forecast Data Still Valid, 16 October 2016, Cycle 00:00 Zulu, Offset 6 Hrs
MET Reading GRIB Forecast ...
MET GRIB Data Extracted and Decoded
MET Local MetStn : EGXN, NEWTON, Distance 8.3 km
MET EBAW 160950Z 14009KT 110V170 CAVOK 16/10 Q1018 NOSIG
MET EBBE 160955Z AUTO 15011KT 9999 NCD 16/10 Q1018 BLU
MET EBBL 160955Z AUTO VRB02KT 9999 NCD 17/10 Q1019 BLU
MET EBBR 160950Z 14009KT CAVOK 16/10 Q1018 NOSIG
MET EBCI 160950Z 15012KT CAVOK 16/09 Q1018 NOSIG
MET EBCV 160955Z AUTO 16011KT 9999 NCD 16/10 Q1017 BLU
MET EBDT 160955Z AUTO 15006KT 9999 NCD 16/10 Q1018 BLU
MET EBFN 160955Z 17014KT 9999 FEW023 SCT060 BRN090 16/10 Q1015 BLU
MET EBFS 160955Z 15010KT 9999 FEW220 14/09 Q1019 BLU
```

Spy indicates what joystick numbers have been mapped to each controller device. The button events within the Spy window will also indicate what physical device is currently mapped to the simulator's joystick number. The joystick order should match the controller order within the simulator's Controls Settings. If they don't then you can change the order via the Joysticks button in either the Camera Management, Panning Management, or Shortcut Commands forms.



General Operation

If you are using TrackIR then run TrackIR and FSX before running OpusFSI.

If you are not using TrackIR then the **FSISERVER** program should be run after FSX/Prepar3D, or you may configure your system to run the server program automatically each time you start FSX/Prepar3D.

When the FSISERVER program is activated it will resume its previous minimized or visible state, and will be displayed in its last known location on the screen. The FSISERVER program will automatically abort when FSX is shutdown.

*To ensure optimum performance, the settings within FSX/Prepar3D on your FSX system should be configured in accordance with the instructions in **FSX Computer System Settings** section at the end of this guide.*

Starting the OpusFSI Software Automatically with FSX and P3D

The FSISERVER program can be started automatically each time FSX/P3D is run, simply by editing the content of the standard FSX **exe.xml** file.

The FSX **exe.xml** file can be found within the

c:\Users\username\AppData\Roaming\Microsoft\FSX directory where 'username' identifies your login account name, or for XP in

c:\Documents and Settings\Application Data\Microsoft\FSX

The P3D **exe.xml** file can be found within the **c:\Users\username\AppData\Roaming\Lockheed Martin\ Prepar3D** directory where 'username' identifies your login account name.

If the file doesn't exist then you can create it using Notepad, just remember the xml file extension when saving the file.

Edit the xml file using Notepad. Paste the contents of the **OpusFSI _ExeXml_Server.txt** file at the end of the xml content. You should paste the content in just before the closing `</SimBase.Document>` statement.

For example, after editing the content of the xml file, the content should look something like this,

```

<?xml version='1.0' encoding='Windows-1252'?>
<SimBase.Document Type='Launch' version='1,0'>
<Descr>Launch</Descr>
<Filename>exe.xml</Filename>
<Disabled>False</Disabled>
<Launch.ManualLoad>False</Launch.ManualLoad>
<Launch.Addon>
  <Name>OpusFSI Flight Simulator Interface Server</Name>
  <Disabled>>false</Disabled>
  <Path>c:\OpusFSI\FSISERVER.EXE</Path>
</Launch.Addon>
</SimBase.Document>

```

Of course you may already have several Addons listed in the xml file. In which case you will find each Addon specified within a separate <Launch.Addon> .. </Launch.Addon> block.

You will need to edit the **c:\OpusFSI\FSISERVER.EXE** entry and specify the correct drive location if you have installed it anywhere other than the standard C drive.

The FSISERVER program will accept a delay command line argument in the form **DELAYn** where **n** is the required start delay in milliseconds (e.g. FSISERVER.EXE DELAY2000 will delay the program start by 2 seconds). This argument can be used to delay an auto start within the simulator's EXE.XML file using the <CommandLine>DELAYn</CommandLine> entry, for example,

```

<Launch.Addon>
  <Name>OpusFSI Flight Simulator Interface Server</Name>
  <Disabled>>false</Disabled>
  <Path>c:\OpusFSI\FSISERVER.EXE</Path>
  <CommandLine>DELAY2000</CommandLine>
</Launch.Addon>

```

will delay the FSISERVER programs start by 2 seconds (2000 mS).

You can also specify more than one command line argument, for example,

```

<Launch.Addon>
  <Name>OpusFSI Flight Simulator Interface Server</Name>
  <Disabled>>false</Disabled>
  <Path>c:\OpusFSI\FSISERVER.EXE</Path>
  <CommandLine>DELAY2000 FSX</CommandLine>
</Launch.Addon>

```

will delay the FSISERVER programs start by 2 seconds and also automatically select FSX simulator type. The program arguments can be specified in any order. The most common program arguments are,

DELAYn ... Delays the program start by 'n' milliseconds.

- FSX ... Auto selects FSX simulator type.
- STEAM ... Auto selects FSE-SE (Steam Edition) simulator type.
- P3D ... Auto selects Prepar3D simulator type.
- NONE ... Auto selects No Connection To Simulator type (FSICLIENT only).

When you next run FSX if you are prompted to trust OpusFSI then confirm Yes.

Turn off User Account Control (UAC)

User Account Control (UAC) can prevent OpusFSI from running automatically with FSX and P3D on Windows 7/8 systems. If this happens turn off UAC as follows,

1. Open User Accounts by clicking the **Start** button , clicking **Control Panel**, clicking **User Accounts and Family Safety** (or clicking **User Accounts**, if you are connected to a network domain), and then clicking **User Accounts**.
2. Click **Change User Account Control settings** (or **Turn User Account Control on or off**). If you are prompted for an administrator password or confirmation, type the password or provide confirmation.
3. Move the slider bar to **Never notify** (or clear the **Use User Account Control (UAC) to help protect your computer** check box) to turn off UAC, and then click **OK**.

Running the software automatically via FSUIPC4

FSUIPC4.ini can be found in the FSX or P3D Modules folder.

You can add the following lines in FSUIPC4.INI (registered version) to run OpusFSI automatically,

```
[Programs]
Run1=READY,CLOSE,"C:\OpusFSI\FSIserver.exe FSX"
```

Specify the location of your FSIServer.exe file.

Run1 is a logical number/line sequence (in case you have/want more instructions).

The suffix FSX can be changed to P3D in the corresponding Prepar3D FSUIPC4.ini.

Operating System Recommendations

Select the High Performance Power Scheme to ensure optimum performance whilst using the simulator. For Windows7 open Power Options by clicking the Start button , clicking Control Panel, clicking System and Security, and then clicking Power Options.

Simulator Recommendations

Ideally your simulator should be installed on a dedicated SSD or HDD, at the very least try and install your simulator on a different drive to your Addons, this will ensure the simulator runs more smoothly. Avoid installing the simulator in Program Files since this causes permission problems.

FSX Steam Edition Recommendations

The OpusFSI_SimObjects_Template.txt text file can be copied and/or renamed to OpusFSI_SimObjects_FSXSE.txt, then edited to list the path specifications of any addon SimObject Airplanes and Rotorcraft folders not recognised by the FSISERVER program.

Prepar3D Recommendations

You will need to install SimConnect if it isn't already installed on your system. Run the SimConnect.msi in the OpusFSI folder.

You cannot start OpusFSI until P3D has loaded its flight, or a prepared Default flight (remember you can always relocate after the start up). Do NOT run OpusFSI when P3D has its 'Create Flight' dialog on display. This is due to a bug in P3D. We recommend you create a Default flight with nil wind; load the Default flight; update the weather using OpusFSI; use the ATIS over the radio to confirm the active runway after injecting the weather, this ensures the correct runway is allocated.

You can of course start P3D in the setup screen, just make sure you load your flight BEFORE running OpusFSI.

In P3D simulator mode the **Enable Volumetric Fog** option is set automatically using the VolumetricFog setting within the Prepar3D.CFG file. If you change this setting during a P3D session then either change the **Enable Volumetric Fog Effect** in OpusFSI to match P3D or restart OpusFSI. The **Volumetric Fog** option is ignored whenever the Microsoft FSX simulator type has been selected.

It is recommended to use our PDK (**Enable Prepar3D PDK Interface** checkbox and setup help in the Configuration dialog) since this is more stable and efficient than the SimConnect interface. This requires copying a DLL file into the P3D Modules folder as described below.

Both the FSISERVER and FSICLIENT programs will automatically use SimConnect 6DOF controls for all non-VC views whilst operating in Prepar3D v3 simulator mode. This measure is to overcome current bug in the Lockheed Martin PDK interface which does not allow 6DOF control in any 'Custom' External views.

Opus PDK Interface Setup Guide for P3D

The **OpusPDK_v2.DLL** (for Prepar3D v2) and **OpusPDK_v32.DLL** (for Prepar3D v3.2) and **OpusPDK_v3.DLL** (for Prepar3D v3.3 onwards) Dynamic Link Libraries provide a direct link into Lockheed Martin Prepar3D systems via the Prepar3D PDK interface. This interface provides for efficient DOF control for camera transitions, panning sequences, and general eye point positioning. This interface is used for all Live Camera, Live Camera Control, and DHM eye point movements, including via the TrackIR interface (FSITRACKIR.EXE). There are three simple steps to setting up the Opus PDK interface,

1. Copy the appropriate OpusPDK_v2.DLL (for Prepar3D v2) or OpusPDK_v32.DLL (for Prepar3D v3.2) or OpusPDK_v3.DLL (for Prepar3D v3.3 onwards) to the <P3D>\Modules folder.
2. Create or edit the Prepar3D simulator's DLL.XML file.
3. Configure the OpusFSI software.

STEP 1 - Copying the OpusPDK.DLL file

Before the Opus PDK library can be activated within Prepar3D the appropriate DLL must be copied into the simulator's <P3D>\Modules folder. This procedure must be undertaken on your main 'flying' server and in the case of Prepar3D Live View client systems on those as well.

Open Windows Explorer.

Navigate to your x:\OpusFSI installation folder.

Right click on the OpusPDK_v2.DLL (for Prepar3D v2) or OpusPDK_v32.DLL (for Prepar3D v3.2) or OpusPDK_v3.DLL (for Prepar3D v3.3 onwards) and select the 'Copy' option.

Navigate to your Prepar3D installation folder.

Right click on the 'Modules' sub-folder and select the 'Paste' option.

You should now have a copy of the latest OPUS PDK DLL file in your <P3D>\Modules folder.

STEP 2 - Create or edit the Prepar3D simulator's DLL.XML file

The Prepar3D DLL.XML file is located in the following folder;

For Prepar3D version 2 - C:\Users\<user_name>\AppData\Roaming\Lockheed Martin\Prepar3D v2

or for Prepar3D version 3 - C:\Users\<user_name>\AppData\Roaming\Lockheed Martin\Prepar3D v3

You must edit this file using Windows Notepad and add the following Launch.Addon section to the XML file's content. When adding the launch code for the Opus PDK DLL in the Prepar3D DLL.XML file, the launch code should be inserted FIRST in the DLL list. This has been found necessary on systems with many Addon DLLs launched, the initialisation of the Lockheed Martin Prepar3D PDK interface seems to be quite time critical and will result in crashing the P3D program if delayed until after a long list of non-PDK addons. Add the appropriate entry **OpusPDK_v2.DLL** for Prepar3D v2 or **OpusPDK_v32.DLL** for Prepar3D v3.2 or **OpusPDK_v3.DLL** for Prepar3D v3.3 onwards.

```
<Launch.Addon>
  <Name>OpusPDK</Name>
  <DLLType>PDK</DLLType>
  <Disabled>False</Disabled>
  <ManualLoad>False</ManualLoad>
  <Path>Modules\OpusPDK_v3.DLL</Path>
</Launch.Addon>
```

For example,

```

<?xml version="1.0" encoding="Windows-1252"?>

<SimBase.Document Type="Launch" version="1,0">
  <Descr>Launch</Descr>
  <Filename>dll.xml</Filename>
  <Disabled>False</Disabled>
  <Launch.ManualLoad>False</Launch.ManualLoad>
  <Launch.Addon>
    <Name>OpusPDK</Name>
    <DLLType>PDK</DLLType>
    <Disabled>False</Disabled>
    <ManualLoad>False</ManualLoad>
    <Path>Modules\OpusPDK_v3.DLL</Path>
  </Launch.Addon>
  .
  . any other DLL launch codes
  .
</SimBase.Document>

```

If no DLL.XML file exists you can copy the supplied \OpusFSI\DLL_v2.XML or \OpusFSI\DLL_v32.XML or \OpusFSI\DLL_v3.XML file into the above AppData folder.

STEP 3 - Configure the OpusFSI software

Before using the Opus PDK Interface you must edit the Configure dialog in the FSISERVER program and all FSICLIENT programs on your Live View client systems and tick the **Enable Prepar3D PDK Interface** checkbox option immediately underneath the Prepar3D folder location box.

FSX Computer System Settings

fsx.cfg File Settings

You must edit your fsx.cfg file, this file can be found in,

c:\Users\<your account name>\AppData\Roaming\Microsoft\FSX

If you can't see the **AppData** folder within Windows Explorer then you will need to change the **View** settings as follows,

Organize - Folder and Search Options - View - Enable the 'Show hidden files, folders, and drives' option.

On all FSX systems we recommend you specify the following fields within in the fsx.cfg file,

[GRAPHICS]
HIGHMEMFIX=1
[DISPLAY]
WideViewAspect=True

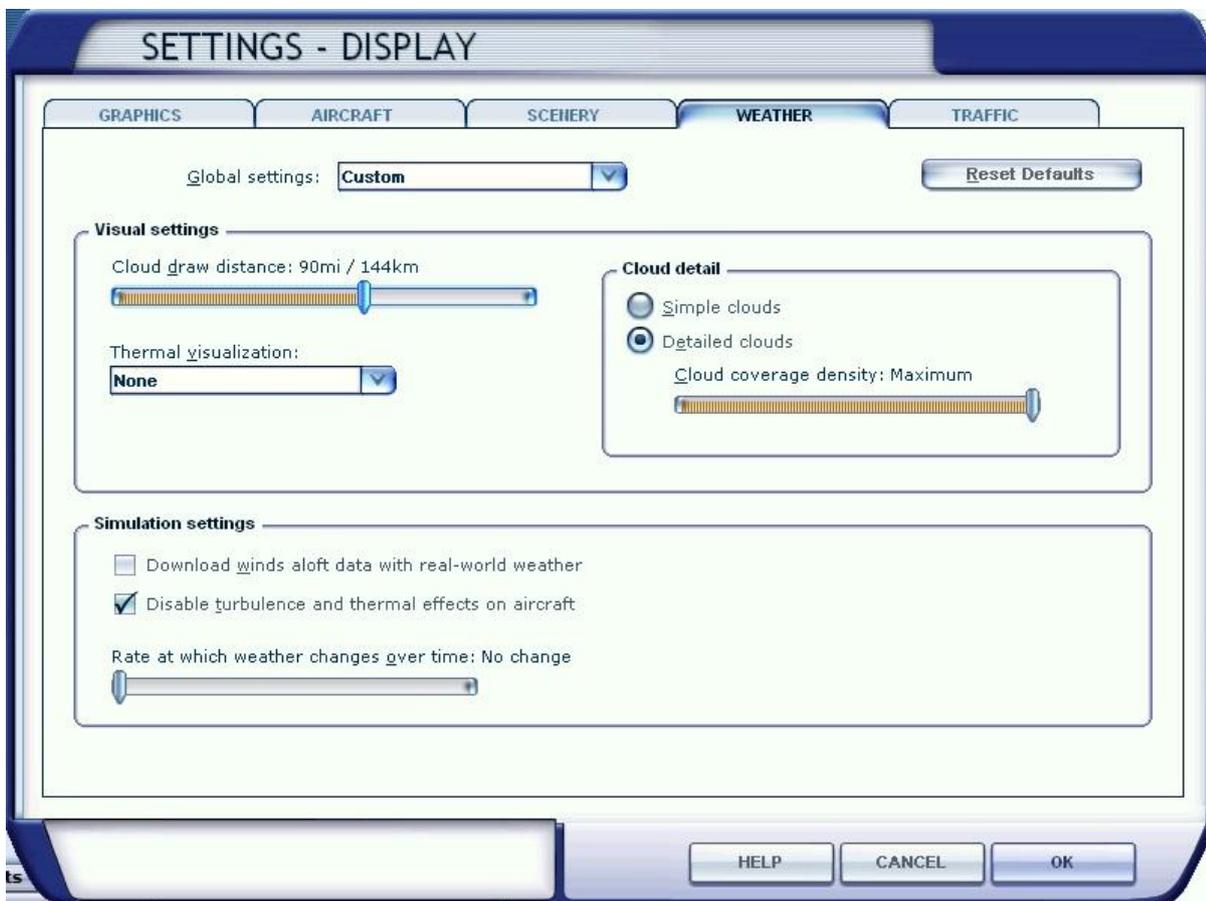
These settings will allow FSX to make better use of the 64-bit memory environment with >2GB memory, and also support modern day wide aspect screens for addons such as PMDG 737NGX.

We also recommend you optimize all of your fsx.cfg files using,
http://www.simforums.com/forums/setting-up-fsx-and-how-to-tune-it_topic29041.html

FSX Settings

*FSX menu option - Options, Settings, Weather, set to **Custom** (set slider bar to left).*

Click on the *Customize* button. Select the *Weather* tab.

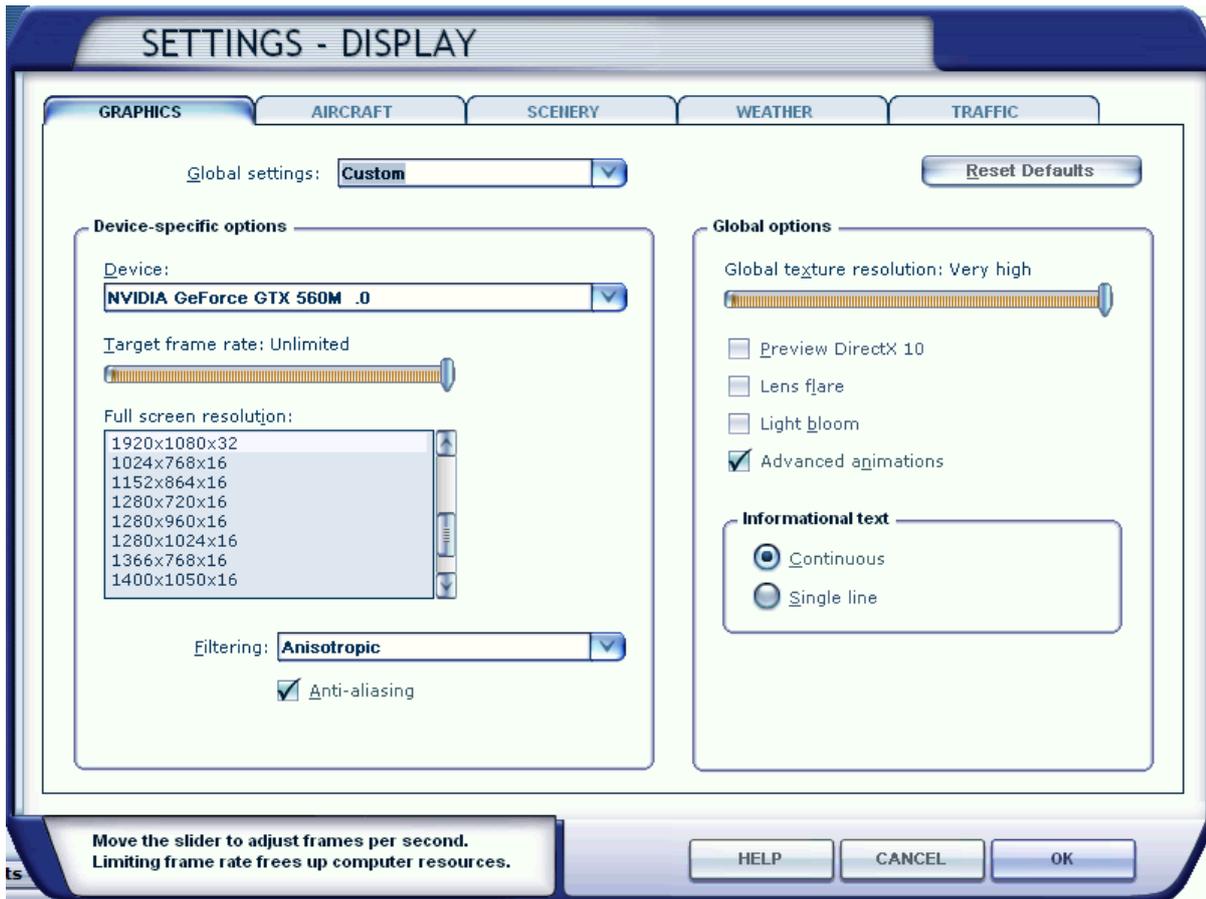


We recommend you set the **Cloud draw distance** to between 80mi/128km and 100mi/160km. If you generally fly at a higher altitudes then the higher setting is preferable but if you fly at lower altitudes then the lower setting is preferable.

Untick **Download winds aloft data with real-world weather**.

Untick **Disable turbulence and thermal effects on the aircraft**. To see wing flex you must also select FSX turbulence and advanced animations which is set via the Graphics tab. For turbulence on the aircraft itself select both the **Bump Aircraft** and Turbulence effects options (**Turbulent Motion** and/or **Turbulent Bump**) within DHM.

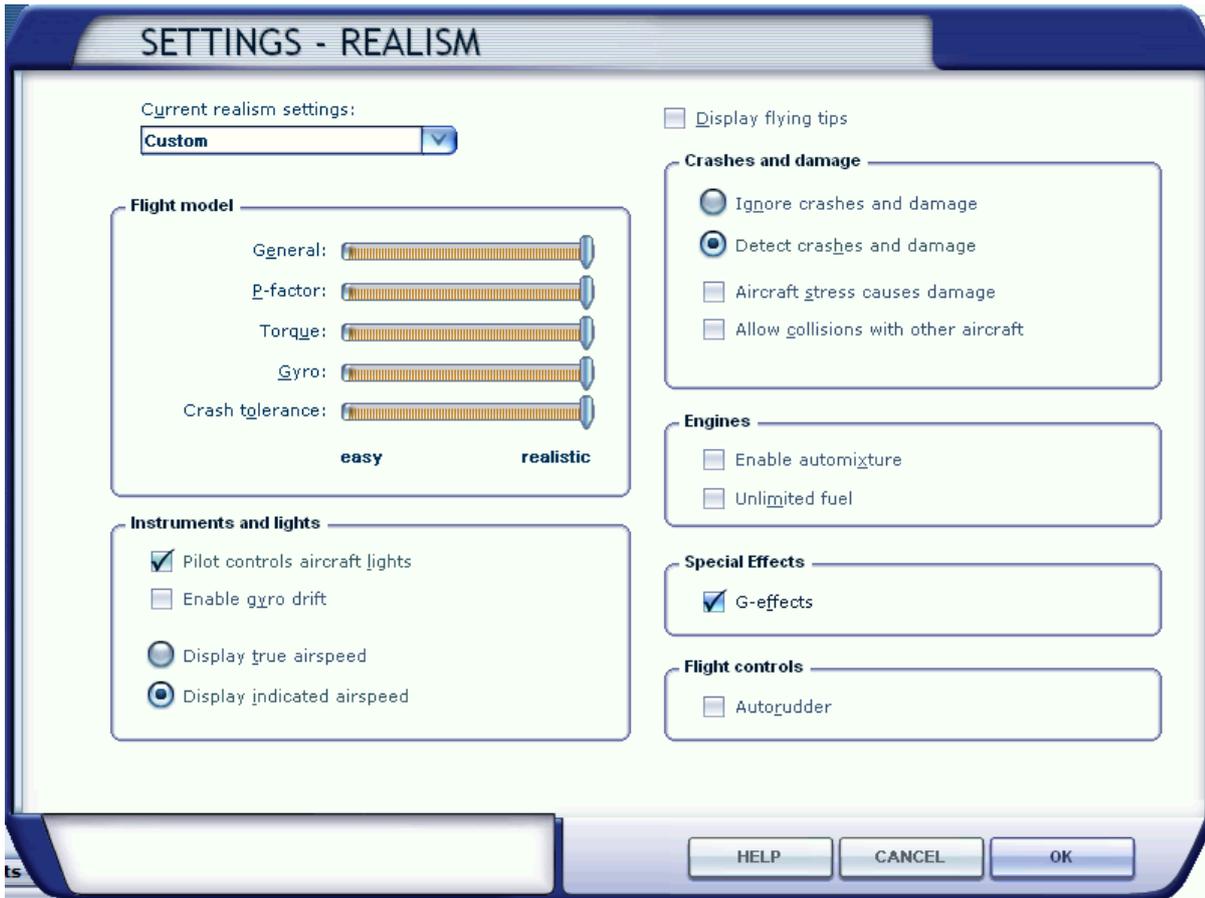
Set the **Rate at which weather changes over time** to **No change** (set slider bar to left).



Set the **Target frame rate** on the server PC to **Unlimited**. A word of caution, if you set your target frame rate too high then you may experience problems with the snow and rain effects. That is, you may see some snow and rain falling vertically whilst moving. This is an FSX problem and the only solution we've found so far is to restrict the machine's frame rate. If this is a problem then a setting of **20fps to 60fps** should result in a smooth operation. On slower systems, or systems with slow hard disk drives, you may also notice the occasional screen flicker. Once again lowering the target frame rate should help.

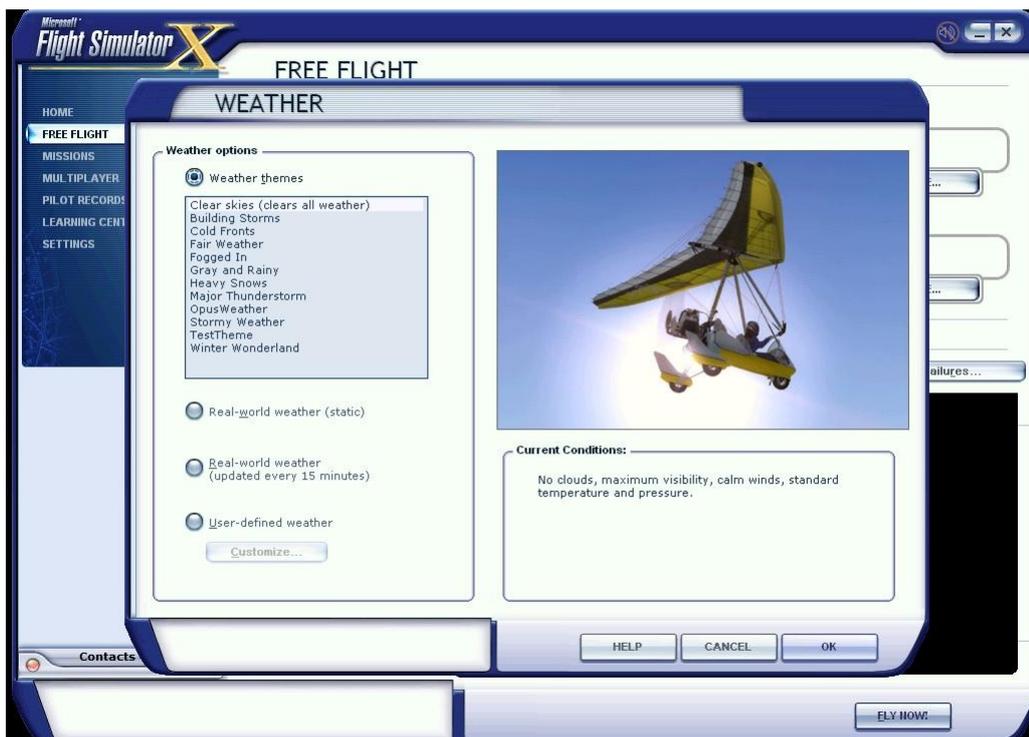
To see wing flex you must select **Advanced Animations** and FSX turbulence (Weather tab).

FSX menu option - Options, Settings, click on the Realism button.



Disable **Aircraft stress causes damage**.

FSX Free Flight, Weather



Set your FSX Current Weather to any weather theme, just don't enable the real world weather options unless you are using AI aircraft.

If you are using AI aircraft then select RW Weather in the FSX Weather settings, update the FSX weather and ensure at least the correct wind has been injected. This requires that your point of departure is a met station and has a valid METAR in the Jeppesen database. This procedure will set the wind BEFORE the flight is even loaded. Now you can take your time, process your flight plan, specify your intended destination and cruise altitude and finally instruct Opus to generate and load the weather. The Opus LWE will automatically put the sim back into custom weather mode. Using this simple procedure will always ensure your AI traffic start out using the correct runway.

FSX Fixes

To stop FSX crashing on menu access, download this version of uiautomationcore.dll;
<http://gex.flight1.net/UIAutomationCore.zip>
Unzip it and copy Uiautomationcore.dll into the main FSX installation folder.

To stop clouds being turned off and back on apply this fix;
http://www.simforums.com/forums/how-to-get-rid-of-annoying-flashing-clouds_topic24830.html
Edit the file FSX\ShadersHLSL\misc\SwarmCloud.fx
Modify the EffectDeclaration entry as follows,

```
const bool EffectDeclaration
<
  string Name = "SwarmCloud";
  string Class = "Basic";
  bool NewMaterialUsage = false;
> = true;
```

Browse to C:\Users\<>username>\AppData\Local\Microsoft\FSX\Shaders\Misc
or C:\documents & settings\<>username>\Local Settings\Application Data\Microsoft\FSX\Shaders\Misc

Delete the file SwarmCloud.fx_<number>

Virus Scanners

We recommend turning off all virus scanners whilst running FSX since they can have a serious effect on performance.

Disable Windows Defender.

Recommended Settings and Practice for Dynamic Live Weather

- Upgrade to the latest Version.
- Set all Defaults in all weather dialogs. *
- Specify your Destination.
- Specify your Max Cruise Altitude. **
- Update the Weather. ***
- Check the Weather ****

* This should enable the **Adjust Options Automatically** and the **Adjust Sim Friendly** options in the Weather dialog.

** If you specify a **Max Cruise Altitude** of 4000 feet or more the LWE will download and process the GRIB forecast data from NOAA.

*** If you have specified Background GRIB Processing in the Downloads dialog then the GRIB data extraction and lengthy decoding will proceed at a slower pace and can take several minutes. Otherwise the processing will be done as fast as possible at the expense of FSX performance or frame rates. The GRIB data is only downloaded once before flight and the decoded data will be valid all day or at least for nine hours so this is normally not a concern or problem. However, most users need GRIB data for flight planning and preparation.

**** Before flight you should get into the habit of checking the weather. At the very least display and check the Opus Local, Lower, Upper, and Destination Weather reports. You may also like to examine the various Opus text reports accessed via the FSX Add-on menu. There are separate reports showing the downloaded METARs, all the GRIB wind and temperature targets from 4000

feet up to FL540, all the en route weather for any specified flight plan including TAFs if you have enabled them, and finally an easy reference to all relevant SIDs and STARs. This report gives a handy direction and bearing for each listed SID and STAR.

The Opus weather reports (e.g. the Destination Weather) should be checked during climb and descent to monitor all wind and temperature targets, compared with the actual FSX ambient conditions. This way you will know that your sim is operating as expected.

Never disable weather updates, FSX will NOT cope on its own it simply cannot contain all the necessary data.

Text Weather Reports, located in the OpusFSI\Weather folder and accessed via the FSX Add-on menu ...

- OpusWeather.txt ... The downloaded METARs
- OpusWeatherReport.txt ... The GRIB data report
- OpusFlightReport.txt ... The flight plan en route weather report
- OpusSIDSTARReport.txt ... The relevant SIDs and STARs

Live Weather Assistant (LWA) and Weather Map data ...

- Surface Visibility
- Precipitation Levels
- Surface QNH
- Surface Temperatures
- Cruise Level Temperatures
- Upper Level Temperatures
- Surface Winds
- Cruise Level Winds
- Upper Level Winds
- Cruise Level Turbulence
- Upper Level Turbulence
- Lower Level Cloud Cover
- Medium Level Cloud Cover
- Met Station Cover

The LWA and up to six weather maps can be displayed on the server or a networked client.

SimObject Path Additions

The **OpusFSI_SimObjects_Template.txt** file can be used to define a list of SimObject paths not currently identified by OpusFSI, normally addon aircraft that have been installed elsewhere and not defined anywhere that OpusFSI checks.

Copy and rename the supplied OpusFSI_SimObjects_Template.txt file. Rename the file as indicated below. OpusFSI will check and process the following sim typed files for the additional path specifications,

OpusFSI_SimObjects_FSX.txt
OpusFSI_SimObjects_FSXSE.txt
OpusFSI_SimObjects_P3D.txt

For backwards compatibility, the file OpusFSI_SimObjects.txt is also checked for 'FSX Steam' sim types.

N.B.

Prepar3D systems should already include a 'simobjects.cfg' file within their common application data (c:\ProgramData) folder. These files are also checked and decoded by OpusFSI so try not to duplicated additional simobject paths in the above text file if used. Your specified SimObjects folders should each contain the same Airplanes or Rotorcraft sub-folders as the standard SimObjects folder within the sim. The FSISERVER and FSICLIENT programs will accept SimObject Addon paths that end in specific sub-folder names '\Airplanes' or '\Rotorcraft' (with or without a trailing backslash). Previously the standard '\SimObjects' root folder was assumed and the sub-folder names '\Airplanes' or '\Rotorcraft' were appended prior to looking for the additional (addon) SimObjects.

Don't forget to check that any addon folders are shared with adequate sharing and security permissions.

Each path must be entered on a separate line in the form,

Path = <full_path_specification>

For example,

Path = E:\3rd Party\Company_XYZ\SimObjects

FSISERVER and FSICLIENT create a log file named SimObjects_FSX.log, SimObjects_FSXSE.log, or SimObjects_P3D.log, depending on the sim type. This log file lists all SimObject Airplane and Rotorcraft paths that are checked along with any errors encountered during the process. The log file helps determine the reason why any aircraft/rotorcraft are not detected by the FSISERVER program.

Ensuring AI Traffic uses the Correct Runway

Create a Default flight with 0 wind. Load the Default flight. Update the weather using OpusFSI.

Use the ATIS over the radio to confirm the active runway after injecting the weather, this ensures the correct runway is allocated.

Using this simple procedure will always ensure your AI traffic start out using the correct runway.

FSUIPC4 Settings

FSUIPC4 is required on the FSISERVER system. FSUIPC4 is required on Live View FSXCLIENTs that are connected to the simulator and used to display camera views.

You can download a free copy from <http://www.schiratti.com/dowson.html>

Turn everything off in FSUIPC4, we recommend disabling all settings. We do not use FSUIPC4 for any weather or turbulence related effects.

If you choose not to install/activate FSUIPC4 then at the moment Opus will not be able to pause the sim, it is normally paused when opening certain Opus dialogs. Hence you will have to pause and unpaue the sim manually.

To disable FSUIPC4 simply remove the associated <Launch.Addon>...</Launch.Addon> entries within the simulator's dll.xml file.

```
<Launch.Addon>
  <Name>FSUIPC 4</Name>
  <Disabled>False</Disabled>
  <Path>Modules\FUIPC4.dll</Path>
</Launch.Addon>
```

TrackIR Settings

Before using the interface you MUST 'Check For Game Updates' within your TrackIR5 and ensure OpusFSX is listed in **Titles** under the **Advanced Settings** tab, then **restart** TrackIR.

Prior to using the TrackIR5 device via OpusFSI you must ensure TrackIR5 does not directly connect to the FSX/P3D simulator. To accomplish this you MUST rename the two SimConnect manifest files within the TrackIR5 installation folder. The folder is usually located in either,

c:\Program Files\NaturalPoint\TrackIR5 (Win 7 32-bit)
or, c:\Program Files (x86)\NaturalPoint\TrackIR5 (Win 7 64-bit)

BEFORE using the Opus TrackIR interface the files you MUST rename are **simconnect.manifest** and **simconnectSP2.manifest**. We recommend renaming these files to **simconnect_RENAMED.manifest** and **simconnectSP2_RENAMED.manifest**

If you wish to revert back to using TrackIR without the OpusFSI interface then you will have to change these files back to their original names.

Check your TIR manifest files after any TIR update, the TIR software can create new files after the upgrade.

Do not copy SimConnect.dll to your root directory otherwise TrackIR will find it and connect directly to FSX instead of OpusFSI.

Run TrackIR and FSX before running OpusFSI. Minimise the TrackIR program to prevent FPS loss.

Do not run any other program that controls the camera views, creates camera shake effects or interfaces to TrackIR. Make sure no such program or subordinate task is running, do not allow any other program to connect to TrackIR prior to OpusFSI.

TrackIR Tuning

TrackIR effects must be tuned using the TrackIR program. TrackIR can be used with the default TrackClip, or it can be used with TrackClipPro. The latter has its own LED emitters and its setup is very different from TrackClip, refer to the TrackClipPro and TrackClipPro sections below.

Make sure you have **Video Processing Mode** set to **Precision** or **Standard** with a Precision Mode Smoothing of **100**. It has been brought to our attention that on some systems TrackIR can become very jerky if 'precision' is disabled, its default key assignment is F7 so it's possible to inadvertently change its setting if you use F7 to increase flaps.

TrackClip

We would advise initially setting the Speed to 1 and the Smoothness to 50. You should experiment on your system and set values your PC is happy with to avoid any jerky DHM movements. Use the test options within the DHM dialog to see what the DHM should look like on your system, then try taxiing up and down in windowed mode and adjust your TrackIR smoothness to give you the optimum effect.

Make sure your **Light Filter Threshold** isn't set too high, try setting **70**, and adjusting from there, with a max setting of **12** for your IR Brightness. Light pollution and an incorrect **Light Filter Threshold** setting are the number one main causes of flicker.

TrackClipPro

It has been reported that for TrackClipPro the Camera IR brightness should be zero and Light Filter Threshold should be set to a high value. The easiest way to get the correct settings is to click the TrackClipPro button in the TrackIR window and it will reset the Camera settings automatically.

Troubleshooting

TrackIR Flickering or Erratic Movement

Problems arise when the light threshold is wrong. If it is too low, extraneous lightsources in the room will falsely trigger TIR into seeing that other lightsource as one of the TrackClipPro's beams. This causes all kinds of false head-rotation issues, which show up as flickering.

The easiest way to solve the problem is to go into the TrackIR main view, right-click on the head-graph window, and choose Camera View, and then tweak the Light Threshold to a point where there is NO red 'false light sources' visible anywhere during the full range of head movement. This can even change during the course of a day (depending on the intensity of reflected light from windows, eye glasses, items in the room etc.).

Your IR brightness levels should be zero. Try selecting the old Trackclip momentarily and then re-select TrackClipPro, and this should clear the IR settings back to zero (off). The TrackClipPro does NOT require the camera to send out IR signals (which are normally reflected off the front of the old Trackclip for the camera to pick up). Instead, the TrackClipPro generates its own light beams

directly (that's why it's connected by wire and powered) - but of course, the camera can still get confused if there are large alternate light sources in the room competing with it.

Here is a handy little tip for fixing TrackIR jerkiness, <http://airdailyx.blogspot.co.uk/2012/09/spf100-track-ir-adx-tutorial.html>

Make sure you don't have any monitoring programs (e.g. FSUIPC autosave) running since they can cause TrackIR to become jerky.

Try enabling the **Run TrackIR High Priority** option in the Server Configuration dialog if TrackIR is not operating smoothly. You may need to try different versions of the TrackIR drivers to get it working smoothly on your system.

TrackIR will not Connect to OpusFSI

If you update the TrackIR software remember to rename the two SimConnect manifest files within the TrackIR5 installation folder.

Search your system and make sure there are no more manifest files located anywhere. Check your root directory and in fact search the entire PC for them. If TIR finds any manifest file it will not attempt to connect to Opus or anything else apart from the sim direct.

Try running everything manually and don't use any automated method. Run TrackIR manually after FSX, then finally run FSISERVER, in other words do not run TrackIR and FSISERVER automatically via FSX or FSUIPC.

OpusFSI TrackIR Settings

Within OpusFSI set the TrackIR scan speed to 25 initially, the XYZ scaling to 1 and PBY scaling to 0.75. These can be adjusted on the fly from within the Configuration dialog.

The TrackIR scan speed can be altered from 6ms to 60ms. If TrackIR is jerky then adjust this setting (try 25-30) in conjunction with your TIR device Speed and Smoothness settings to reach an optimum effect. If you set the scan rate too high it stutters, if you set it too low it jumps.

The PBY setting should be adjusted in conjunction with the TIR device speed settings to determine the range of head movement and how far you can see behind you.

You may need to try different versions of the TrackIR drivers to get it working smoothly on your system.

If you are still having problems with jerkiness after setting the TIR light levels then you can try enabling **Run TrackIR High Priority** in the Server Configuration dialog.

TrackIR Operation

TrackIR can be enabled or disabled for each camera view within Live Camera, this is useful for instance when you want to adjust the GPS via a small click spot, if TrackIR (and DHM) movement is frozen you can operate the click spot no matter how unsteady your head is.

The TrackIR interface can be toggled on/off within the Cameras dialog (Toggle TrackIR On/Off button), allowing camera configuration and editing with the TrackIR device either on or off.

TrackIR Cockpit Limits

To set up TrackIR cockpit limits refer to the **OpusFSI_Live_Camera.pdf** document.

TrackIR Updates

Check your TIR manifest files after any TIR update, the TIR software can create new files after the upgrade which you will need to rename again (see above for details).

Using FS2Crew with OpusFSI

There can be an issue using FS2Crew since it relies on the 2D Panel initially being loaded. You can work around this by creating a 2D default camera view for your aircraft and follow the procedure below. Note this example procedure uses the NGX aircraft.

1. Start OpusFSI, enter Destination, Cruise level and any Alternates.
2. Start FSX, select Free Flight, setup flight then fly now.
3. Wait for NGX to initialize in 2D mode (20 second countdown).
4. Switch to 3D VC
5. Start FS2Crew.
6. Commence Preflight.

Uninstalling OpusFSI

If you wish to uninstall OpusFSI prior to an upgrade then uninstall via Control Panel, Uninstall a Program. Do not delete your OpusFSI folder (containing your configuration files) or Opus Software folder (containing your licence files).

Alternatively if you wish to remove OpusFSI completely from your system and have used Live Camera then first restore your aircraft.cfg files by disabling Live Camera in the Configuration dialog. A message box informs you that Live Camera is removing the Camera Definitions from all aircraft.cfg files for you. These changes will NOT be noticeable until you either restart FSX/P3D, or reload a completely different aircraft type forcing FSX/ P3D to reload the modified cfg file. Uninstall OpusFSI via Control Panel, Uninstall a Program.

FAQ and Troubleshooting

Can I use other software packages with OpusFSI?

We strongly recommend the use of 3rd party packages such as FEX for their sky and cloud textures, or HDEv2 (freeware) for clouds with the sky upgraded by Danny Glover. You will really see the benefit of using the OpusFSI Live Weather Engine with these textures loaded. We do not include or load any sky and cloud textures, we just create and load the most detailed and realistic weather. However, if you rely on the default sky and cloud textures within FSX/P3D then no matter how detailed the weather is it will not look very impressive. Disable the weather update in 3rd party packages to prevent conflict with the OpusFSI weather engine.

If your aircraft doesn't include sounds then we would also recommend the use of packages such as Accu-Feel for the sound effects but with the Accu-Feel global turbulence, chop, gusts, and clear air turbulence aircraft movement options disabled since they conflict with OpusFSI.

TrackIR can be used with OpusFSI but Automatic Head Movement will be automatically disabled.

How to Purchase

Follow the link from our home web page or display our downloads page and click on the button to **Purchase OpusFSI**.

Download the Opus Flight1 Purchase exe onto your main 'flying' server (sim) system to purchase the product. When you run the purchase file a Flight1 form with 3 buttons will be displayed. If you already have a Flight1 account click button 1 to log in (this is optional and if you get any Flight1 login error messages don't use it). Click on buttons 2 and 3 to fill in your purchase details and then the Purchase button will appear, click on this button to complete purchase.

After purchase, the Opus msi installation file will be unwrapped into c:\Opus Software along with your license key and you will receive an email confirmation of your order. Run the msi to install Opus and follow the instructions in our Getting Started guide.

I can't start my Flight1 downloaded application (it never runs), so I can't purchase the software

You need to make sure Data Execution Protection (DEP) allows the EXE to run. You can check your DEP settings by selecting Control Panel, System and Security, System, System Protection, Advanced tab, Performance Settings, Data Execution Prevention tab. Select "Turn on DEP for essential Windows programs and services only" option, or try to add the EXE you downloaded to the exception list.

Also, ensure that you have full Administrator access to the computer and you may need to disable any virus scanner or spyware program that is running.

If you still have problems refer to the Flight1 website troubleshooting.

If all else fails then download it on another computer, make sure it runs, and then move it to your flight sim computer using the Flight1 licence transfer tool.

My payment was not accepted by PayPal

Email us for further assistance.

My virus scanner gives me a warning for the Flight1 downloaded application

Unfortunately, one of the most common issues when people can't get software to run is interference from a Virus or Spyware scanner. Although they do good things, in many cases they can interrupt programs you may want to run. If you get an error message that does not appear to be from the downloaded EXE, you need to make sure your virus or spyware scanner is disabled prior to running the EXE. If you are concerned about this, you can scan the file prior to running it, and then after your purchase, if you are prompted to automatically run the setup application, select No, then manually scan the setup application. This is usually extracted right after your purchase is made.

False-Positive reports with software is common.

'The cabinet file is corrupt' error message

If you see the error message,

The cabinet file '_xxx' required for this installation is corrupt and cannot be used. This could indicate a network error, an error reading from the CD-ROM, or a problem with this package

then it is most probably a corrupted msi file so just download it again. If you are using Chrome then try another browser.

I can't download Opus

If you are having problems downloading then make sure your anti-virus software is disabled. Internet Explorer seems to be the most reliable browser for downloads. Try downloading on a different computer if possible. If you are downloading the purchase file on another computer, make sure it runs, and then move it to your flight sim computer using the [Flight1 licence transfer tool](#).

'There is a problem with the windows installer package. A DLL required for this install to complete could not be run...' error message

The installer doesn't have permissions to access the folder C:\Users\<<name>\AppData\Local\Temp.

Go to Properties > Security on the folder and give Everyone the Full control permission.

Can't uninstall OpusFSI/FSX

If you are having problems uninstalling Opus due to a missing msi or registry corruption then use the following Microsoft utility, <https://support.microsoft.com/en-gb/help/17588/fix-problems-that-block-programs-from-being-installed-or-removed>

Can't run the msi in Windows

1. Turn UAC OFF.
2. Run the Command Prompt in Admin Mode (not the same as you being an Admin user).
3. Type: **bcdedit /set testsigning off**
4. Reboot. Windows will power up in a test mode and will allow you to run any msi file.
5. **Install the msi file.** After installing the software ...
6. Run the Command Prompt in Admin Mode (not the same as you being an Admin user).
7. Type: **bcdedit /set testsigning on**
8. Reboot

After rebooting you should still be able to run msi files but may need to answer 'More Info' and 'Yes' to a Windows 10 user query.

System.TypeInitializationException error

You need .NET version 2 and SimConnect to be installed for OpusFSI and its SimConnect links to work.

You can check what versions of .NET you have installed by checking your c:\Windows\Microsoft.NET\Framework or Framework64 folders. You should see a v2.0.xxxxx folder in addition to the v4.0.xxxxx folder.

In the case of SimConnect, first make sure you have installed FSX or P3D along with its SP2 or installed the FSX Acceleration version, SimConnect is usually installed automatically with it. If you have mislaid or corrupted your SimConnect then you can try re-installing it using the SimConnect.msi file within your OpusFSI folder.

Opus won't run or aborts

If Opus won't run or immediately aborts then reboot your PC, this is probably due to a windows update which needs a reboot of your PC. If this doesn't work then reinstall SimConnect by running the SimConnect.msi in the Opus folder and then reboot your PC.

When I install and run FSISERVER it runs in demonstration mode

You must install the Flight1 purchase file on your C drive. You can move the msi to another location but must leave the OpusFSI and/or OpusFSX licence and key files on drive C in the C:\Opus Software folder.

Opus can only be installed on one drive in one folder. Uninstall any old versions of Opus using Control Panel, Uninstall a Program. Do not delete your OpusFSI (or OpusFSX) folder though since your configuration (DAT and CMD) and camera (CAM, LIM and CDF) files are stored there, assuming you want to keep them.

For OpusFSI check your OpusFSI\FSISERVER.log for errors.

If your Name and Order Number are blank in the Spy window then your licence file cannot be accessed due to either file permission problems or a corrupt licence file.

If you try and edit the licence file it will become corrupt, you should not open the licence file. If this has happened download and reinstall either,

- the **Purchase OpusFSI** file if you purchased the full OpusFSI version or,
- the **Upgrade OpusFSX to OpusFSI** file if you purchased the OpusFSX to OpusFSI upgrade or,
- the **OpusFSX Reinstall** file if you purchased OpusFSX.

Refer to Reinstalling Opus on a new or reformatted PC.

Your system will require a valid OpusFSI licence, internet access and the computer clock must have the correct time.

Simulator's Installation Folder, Unable to access the installation folder...

Opus tries to copy the OpusWeather.WT weather file into the FSX\Weather\themes (or Prepar3D\Weather\themes) folder and will display this error message if it cannot do this.

If you see the above error message then it is essential that you check your installation folder is specified correctly in the Configuration dialog. Try reconfiguring the sim location again.

Also check your sharing and permissions, it is important to set permissions as well as sharing as described in the OpusFSI Getting Started guide or OpusFSX Getting Started guide.

Spy Error Messages

FSX Failed to establish link 1 with FSX

Error HRESULT E_FAIL has been returned from a call to a COM component.

This usually does not indicate a serious error, it usually means FSX is not running and hence, the software cannot connect to SimConnect. If you are running FSX it could mean you do not have SimConnect installed, or SimConnect is not functioning correctly.

You must have FSX installed on the main 'flying' server and each client computer system. You should also install the same scenery and aircraft addon packages. The aircraft addon packages need only be installed however if you want to use external 'aircraft' views on the client system. If this happens to be one particular client PC or laptop then install the aircraft addon just on that machine.

Note, you do not need to run FSX if you just wish to test the network connections or set up the FSISERVER and FSICLIENT programs.

Failed to establish link with FSUIPC

Error code 8

Error code 8 means you have the wrong Flight Simulator system for FSUIPC4. Have you selected the correct simulator (FSX or P3D) in the OpusFSI configuration dialog and located its installation folder? If you have not then OpusFSI will be trying to connect to the wrong sim type!

Opus stops working

Make sure you only have one copy of Opus installed in Windows Control Panel using the Uninstall Programs option (not some Cleaner type package).

All the FS... EXE and DLL files in the OpusFSI (or OpusFSX) folder should have the same date, if they don't then uninstall Opus and reinstall.

The software looks for the licence and key files on drive C in your c:\Opus Software folder.

Don't install Opus in the Opus Software, sim, or Program Files folders, and don't install in more than one folder on your PC.

FSX freezes or my aircraft will not move

The problem is caused by running both the Opus SERVER and CLIENT programs on the same PC. If you have a standalone system you must only run the FSISERVER or FSXSERVER program, do not run the client program that will freeze your sim (it is only intended to be run on networked client machines).

Before disabling 3rd party camera packages their configuration utility must be run and the "Restore" function selected to restore all camera views to FSX default, otherwise 3rd party camera definitions are not removed from the aircraft config files and can cause problems.

The master battery and parking brake indications aren't correct

You need to install FSUIPC4 on the OpusFSI client PCs. You can download a free copy from <http://www.schiratti.com/dowson.html>. FSUIPC4 is used for the following functions; setting the sim clock, master battery and parking brake, and pausing the sim.

Overspeed and Underspeed Warnings

If you are flying with the sim rate speeded up, especially above x6 then it is possible to get overspeeds or underspeeds. Even at x6 speed, your auto pilot or FSX may oscillate the air speed repeatedly causing repeated overspeeds. You should disable the FSX stress causes damage option.

Reinstalling OpusFSI on a new or reformatted PC

Download and run either,

- the [Purchase OpusFSI file](#) if you purchased the full OpusFSI version or,
- the [Upgrade OpusFSX to OpusFSI file](#) if you purchased the OpusFSX to OpusFSI upgrade or,
- the [OpusFSX Reinstall file](#) if you purchased OpusFSX.

If you have your licence and key files on drive C in the C:\Opus Software folder then Choose the option to [reinstall using the key file](#). If you purchased via credit card use the last four digits of the credit card as your password, otherwise use your order password (which is different

to your login password). You can [request your order password](#) from Flight1 if you have forgotten it, you will have a different password for each Flight1 order.

If you have lost your licence and key files then choose the option to [reinstall using your Flight1 account](#), you will need your email and account password. You can [request your account password](#) from Flight1 if you have forgotten it. You can also [request your order password](#) from Flight1 if you have forgotten it, there are different passwords for each Flight1 order.

If you don't have a Flight1 account then you can [create one](#) and [assign](#) previous purchases to your account.

If you still can't reinstall then [request a new key file](#) from Flight1.

You may install the software onto any drive provided its folder name is OpusFSI (or OpusFSX) with the exception that you must not install OpusFSI (or OpusFSX) in the **Opus Software, FSX, Prepar3D** or **Program Files** folders, and don't install in more than one folder on your PC.

FSX CPFlight MCP/EFIS 737PRO/EL (Device Driver No.1)

TOGA button

The TOGA button has been added to the CPFlight MCP737 panel driver on auxiliary input K121.

A/T Arm switch

The A/T Arm switch on the CPFlight MCP737 is automatically disengaged 2 to 3 seconds after landing.

Unable to Open COMn serial port !

Have you configured the wrong serial port number or forgot to connect power to the panel?

CPFlight MCP controls have stopped working with PMDG 737 NGX

There is a problem with PMDG's FSXPMDG.EXE software when you open an FSX dialog. If you have paused the sim then you must unpause it before any MCP changes will be effective.

Also if you stop OpusFSI and restart it, then after the panel is initialised you must make a change on the sim's MCP to kick the PMDG connection back into life.

Additional FAQs regarding weather, camera and network issues can be found in the relevant Weather, Camera and Getting Started user guides.