

OpusFSX

Flight Simulator Interface for FSX & Prepar3D

Getting Started - Single PC



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System Requirements

- Microsoft Simulator X with SP2 or Acceleration Pack.
- Windows 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 OpusFSX 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 not required on the FSXSERVER system unless you intend to run FSX at increased simulation rates or enable the CPFlight MCP737/EFIS device driver. 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 OpusFSX folder.

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.

Software Installation

Ensure Microsoft .NET version 2, SimConnect and FSUIPC4 (if required) are installed on your PC.

Installing the Demo version of OpusFSX

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

Purchasing OpusFSX

1. Click on the **Purchase OpusFSX** button on our downloads webpage and download (save) the **OpusFSX_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 OpusFSX folder containing your camera and system configuration files.
3. Run the **OpusFSX_Flight1_Purchase.exe** file.
4. You will now find the OpusFSX.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 OpusFSX.msi file and follow the instructions to install the software into the **OpusFSX** directory. You may install the software onto any drive provided its folder name is OpusFSX with the exception that you must not install OpusFSX in the **Opus Software, FSX, Prepar3D** or **Program Files** folders, and don't install in more than one folder on your PC.

Upgrading OpusFSX

Release Upgrade

If you have previously purchased OpusFSX and want to upgrade to the latest Release version then click on the **OpusFSX Demo or Upgrade** button on our downloads webpage and download (save) the OpusFSX.msi file. Uninstall the existing version prior to upgrading via Control Panel, Uninstall a Program. Do not delete your OpusFSX folder. Double click on the OpusFSX.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 OpusFSX 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).

Beta Upgrade

Click on the **OpusFSX Beta** link in the beta section and download the **OpusFSX.msi** file.

For an msi file install as per the Release Upgrade above (by uninstalling first).

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

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

Automatically Selecting the Simulator Type

The FSXSERVER program will accept an optional FSX or P3D argument to automatically select the simulator type when it runs. So if you have both FSX and P3D you can create two desktop shortcuts, one running 'c:\OpusFSX\FSXSERVER.EXE FSX' for Microsoft FSX, the other running 'c:\OpusFSX\FSXSERVER.EXE P3D' for Lockheed Martin Prepar3D.

Specifying the View Mode

FSXSERVER 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. FSXSERVER 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.

Sharing and Security

Firewall

You may need to allow OpusFSX 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 FSXSERVER (or FSXCLIENT on a client PC) in the OpusFSX installation folder.

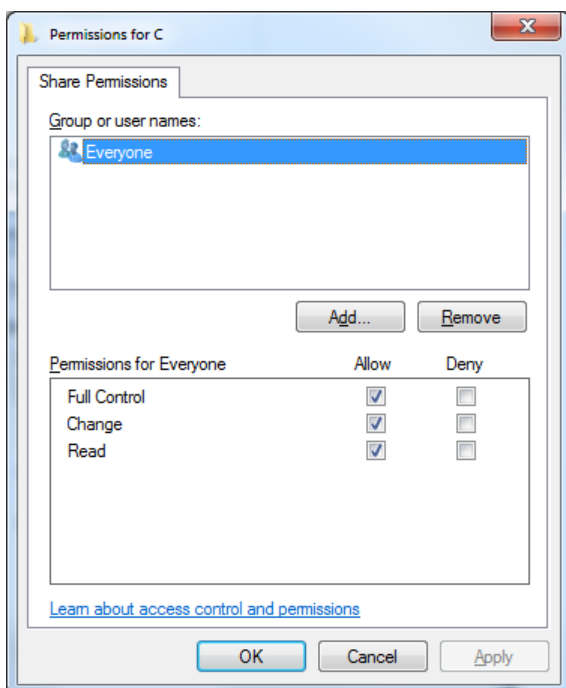
Sharing

You may need to set sharing **and** security permissions on both your OpusFSX and your FSX (or Prepar3D) folder in order for OpusFSX 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 OpusFSX and FSX\Weather\themes folders.

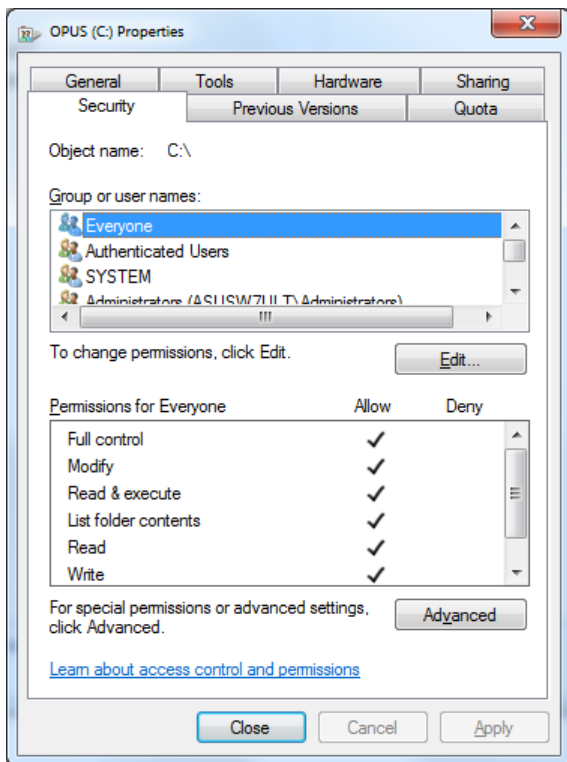
Absolute worst case, just install FSX or Prepar3D in its own folder (e.g. d:\Prepar3D), moving outside the secured Program Files folder. If OpusFSX still doesn't work correctly after setting sharing and security permissions a re-install may be necessary.

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

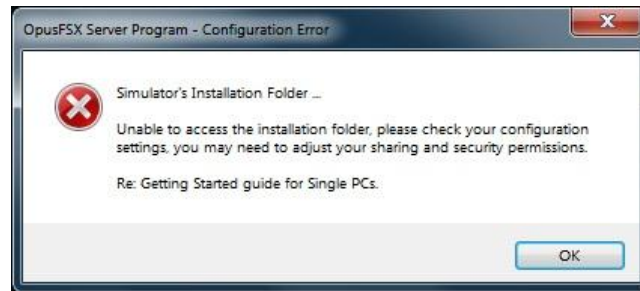
The FSXSERVER program will create an **FSXSERVER.log** file in the \OpusFSX installation folder.

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 \OpusFSX\FSXSERVER.log file ...

```
OpusFSX Flight Simulator Interface
Log Generated 15 January 2014, 10:14 Hrs
Installed Folder: C:\OPUSFSX
No Errors Detected.
Installed Files:
OPUSFSX.DLL   Version: 3.4.2.0 , 15 January 2014, 10:09 Hrs
FSXSYSTEM.DLL Version: 3.4.2.0 , 15 January 2014, 10:08 Hrs
FSXSERVER.EXE Version: 3.4.2.0 , 15 January 2014, 10:08 Hrs
FSDECODER.EXE Version: 3.4.2.0 , 15 January 2014, 10:09 Hrs
```

Error Messages



OpusFSX 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 OpusFSX 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 FSXSERVER program on your FSX/Prepar3D system.

The FSXSERVER program **MUST** be started in its local installation folder, in other words it **MUST** be started in **\OpusFSX**.

N.B. Do not run the FSXCLIENT 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.



Figure 1 - FSX Server's Main Form

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

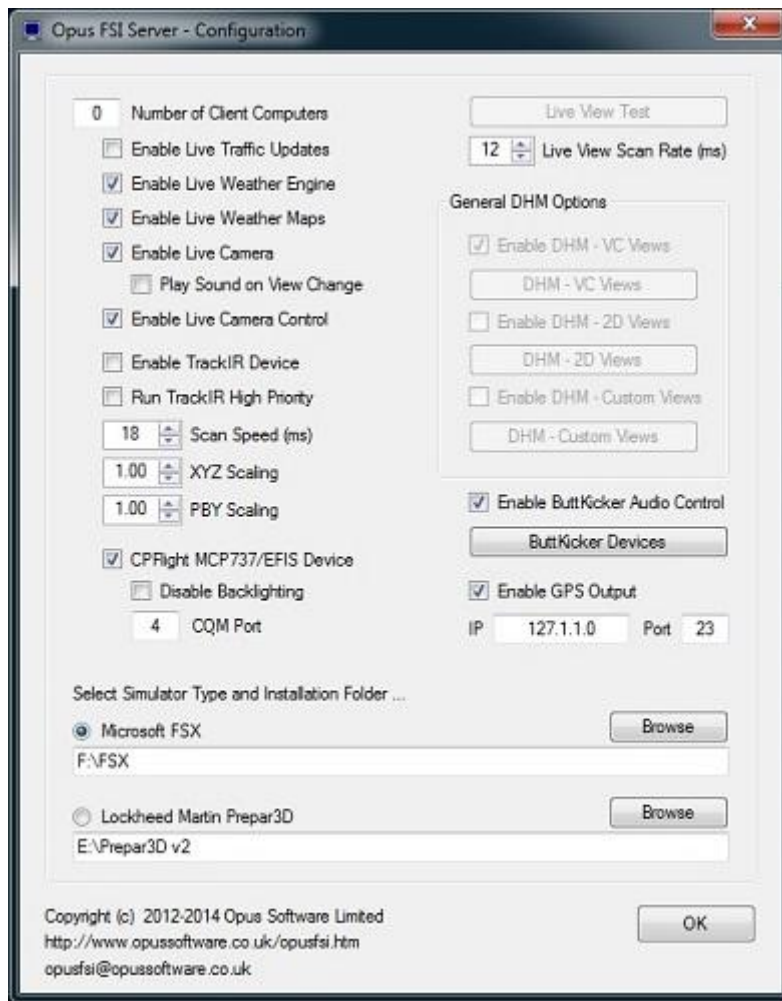


Figure 2 - FSX Server's Configuration Dialog

The number of **Live View** client computer systems should be configured to zero.

Live Traffic has not been implemented yet.

Enable **Live Weather Engine** if required and **Weather Maps**. This option is available in a limited form on the free demonstration software, i.e. the LWE is restricted to 160km (100 miles) in all directions and weather updating only whilst your aircraft is on the ground.

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.

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**.

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

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 FSXSERVER program. *If you fail to do this correctly you will be unable to select and activate any dynamic weather or weather themes.*

Close OpusFSX.

Run FSX/P3D.

Run OpusFSX.

Weather

Click the **Weather** button on the main server's form and select either,

- **Dynamic Live Weather** - 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.
- **METAR File Import** - if you wish to import METAR data from a text file then tick the **Import METAR Data From File** checkbox and browse to the required file you have created.
- **Static Weather Themes** - choose your required theme from the list or load one you saved yourself previously (using the **Save Current Weather as Static Theme** button) by selecting 'User Specified ...' and clicking on Browse. Static Weather Themes will be greyed out if the Live Weather is enabled in the Server Configuration dialog.



Figure 3 - FSX Server's Weather Options Dialog

Click OK, and you are ready to fly.

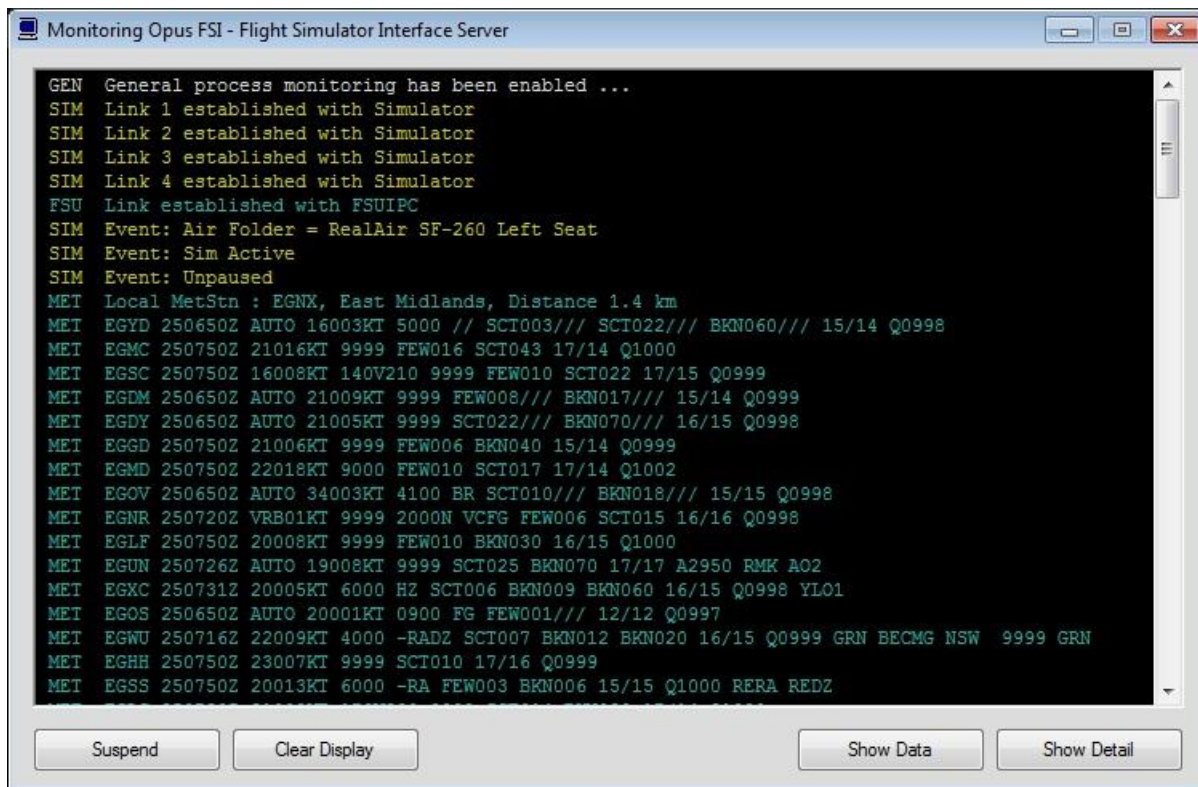
For further details please refer to the OpusFSX_Live_Weather pdf guide which can be found in the **OpusFSX** installation folder, also available from our download page.

Cameras

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

Spy

If you run the simulator in windowed mode you can click on the OpusFSX 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 Spy window is automatically cleared after ten minutes.



General Operation

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

If you are not using TrackIR then the **FSXSERVER** 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 FSXSERVER 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 FSXSERVER 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 OpusFSX Software Automatically with FSX and P3D

The FSXSERVER 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 **OpusFSX _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>OpusFSX Flight Simulator Server for FSX</Name>
  <Disabled>>false</Disabled>
  <Path>c:\OpusFSX\FSXSERVER.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:\OpusFSX\FSXSERVER.EXE** entry and specify the correct drive location if you have installed it anywhere other than the standard C drive.

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

Turn off User Account Control (UAC)

User Account Control (UAC) can prevent OpusFSX 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 OpusFSX automatically,

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

Specify the location of your FSXServer.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.

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
```

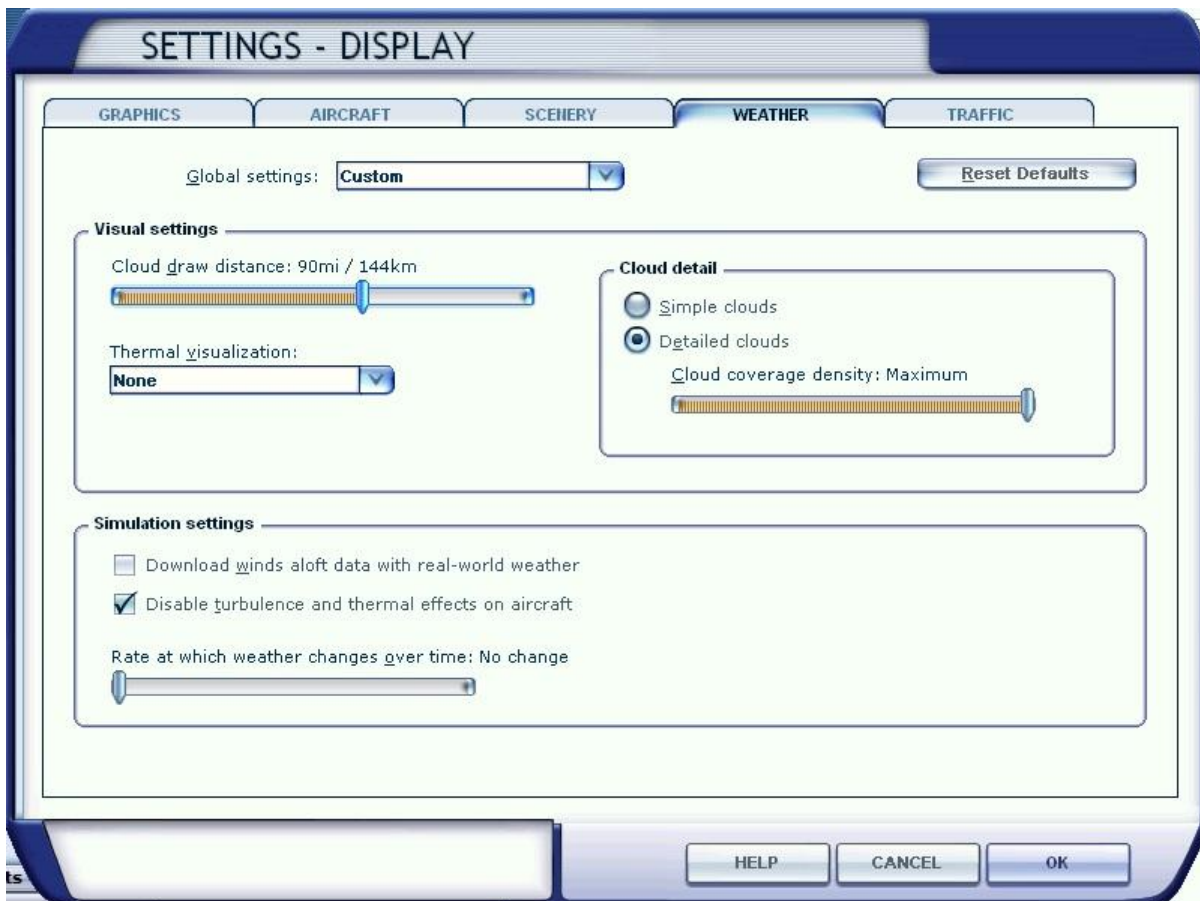
These settings will allow FSX to make better use of the 64-bit memory environment with >2GB memory, and also support modern day wide aspect screens for addons such as PMDG 737NGX.

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.

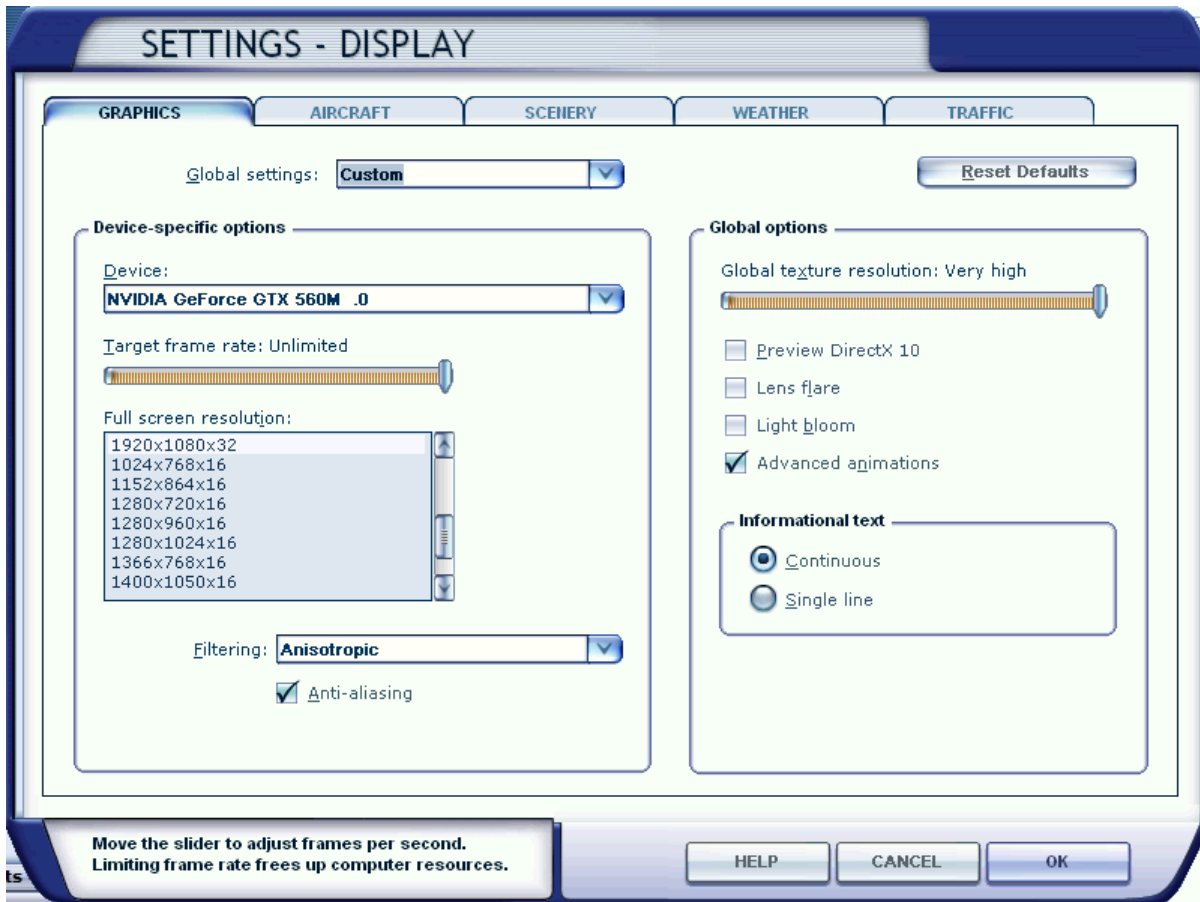


We recommend you set the **Cloud draw distance** to between 80mi/128km and 100mi/160km. If you generally fly at a higher altitudes then the higher setting is preferable but if you fly at lower altitudes then the lower setting is preferable.

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

Tick **Disable turbulence and thermal effects on the aircraft** unless you wish to see wing flex and ASI movement in turbulence. 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.

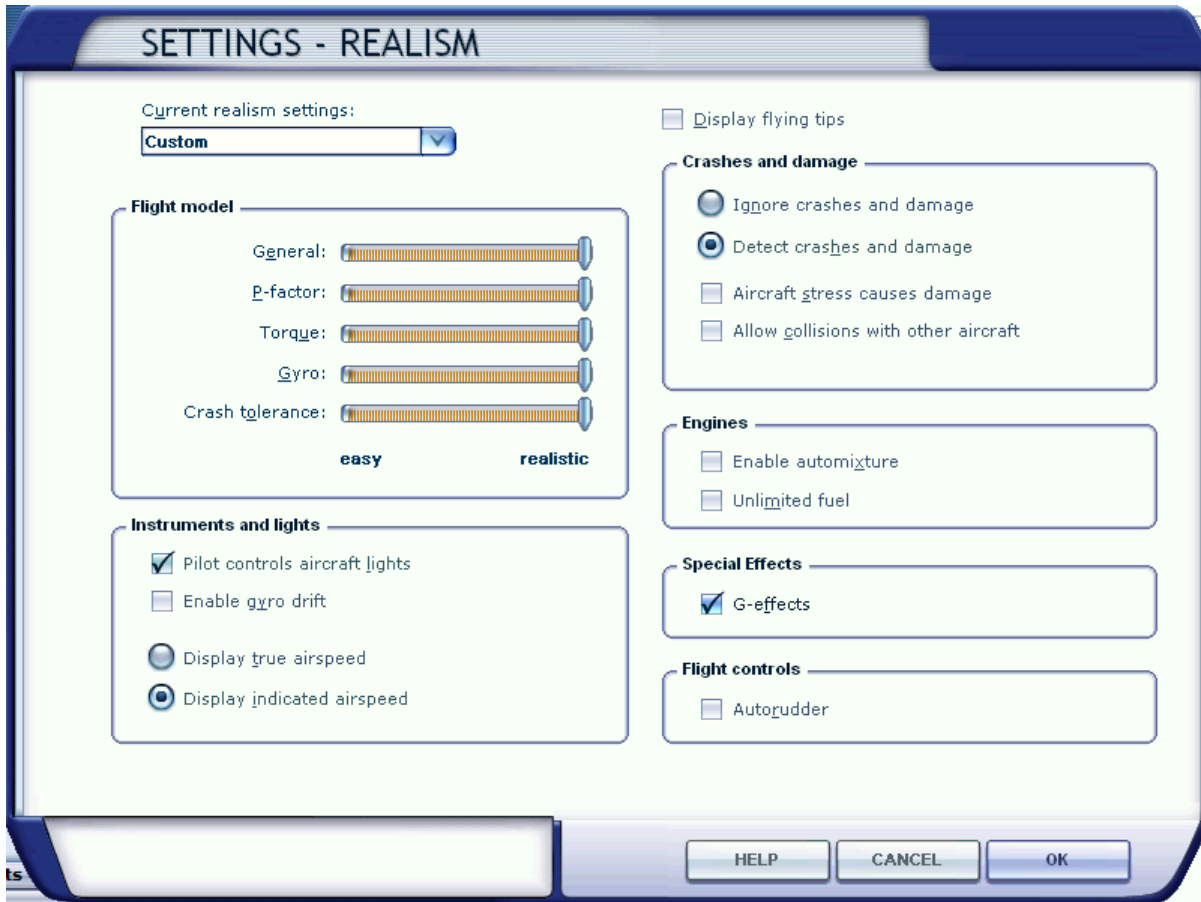
Set the **Rate at which weather changes over time** to **No change** (set slider bar to left).



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.

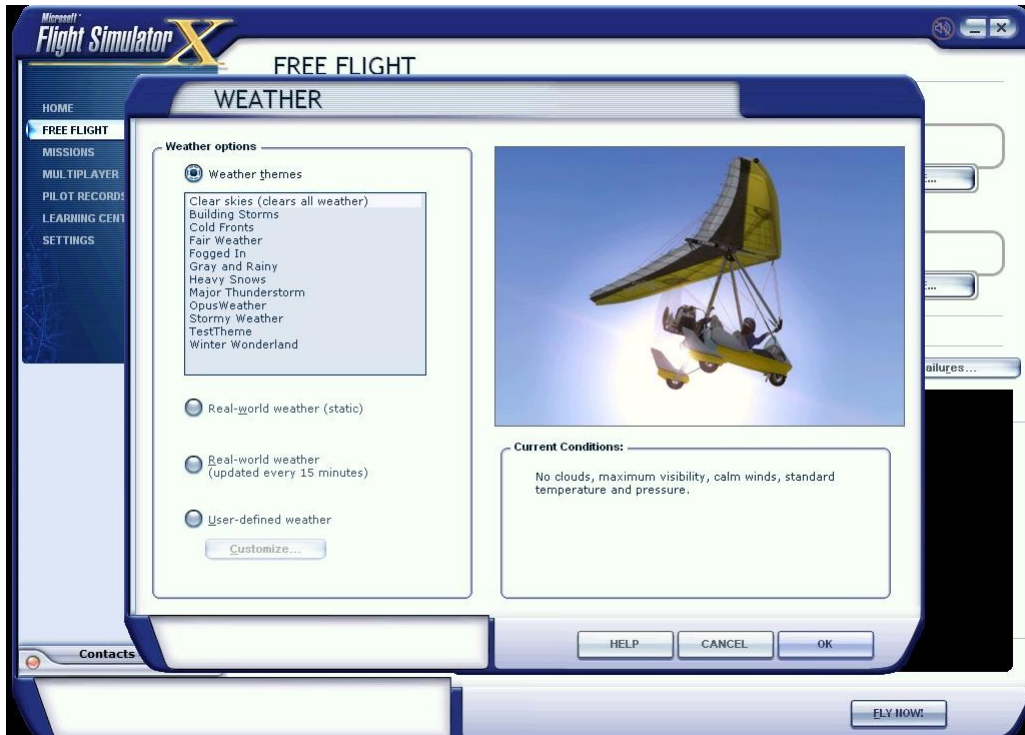
To see wing flex you must select **Advanced Animations** and FSX turbulence (Weather tab).

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

Virus Scanners

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

Recommended Settings and Practice for Dynamic Live Weather

- Upgrade to the latest Release or Beta 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 6000 feet or more the LWE will download and process the GRIB forecast data from NOAA.

*** If GRIB data is downloaded then the **Opus Upper Atmosphere Report** will be automatically displayed showing the progress of your GRIB data download and processing. 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 OpusFSX\Themes 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 QNH
- Surface Winds
- Surface Temperatures
- Surface Visibility
- Cruise Level Winds
- Cruise Level Temperatures
- Precipitation
- Lower Level Cloud Cover
- Met Station Cover

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

Ensuring AI Traffic uses the Correct Runway

To ensure your AI traffic uses the correct runway you can do one of two things,

1. Check the current wind and specify that wind manually within FSX before loading the flight. It doesn't matter about any other weather parameters since Opus will update it, but it will allow you to stipulate what the wind is going to be (matching the RW) BEFORE the flight is loaded.
2. Simply 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 now almost defunct Jeppesen database. Again this 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 LWA 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.

FSUIPC4 Settings

FSUIPC4 is not required on the FSXSERVER system unless you intend to enable the CPFlight MCP737/EFIS device driver within the FSXSERVER Configuration. 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 unpause 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\FSUIPC4.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 OpusFSX 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 OpusFSX 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 OpusFSX.

Run TrackIR and FSX before running OpusFSX. 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 OpusFSX.

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 OpusFSX

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 FSXSERVER, in other words do not run TrackIR and FSXSERVER automatically via FSX or FSUIPC.

OpusFSX TrackIR Settings

Within OpusFSX 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 **OpusFSX_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 OpusFSX

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 OpusFSX, 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 OpusFSX

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

Alternatively if you wish to remove OpusFSX 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, or reload a completely different aircraft type forcing FSX to reload the modified cfg file. Uninstall OpusFSX via Control Panel, Uninstall a Program.

FAQ and Troubleshooting

Can I use other software packages with OpusFSX?

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 OpusFSX 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 OpusFSX 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 OpusFSX.

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

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 right-clicking My Computer, select Properties/Advanced/Settings/Data Execution Protection. You can select the "Turn on DEP for essential Windows programs and services only" option, or try to add the EXE you downloaded to the exception list. Reboot your PC for the changes to take effect. Also, ensure you have full Administrator access to the computer and you may need to disable any virus scanner that may be running.

If you still have problems refer to the Flight1 website,
<http://www.flight1.com/view.asp?page=vista>

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

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.

'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.

System.TypeInitializationException error

You need .NET version 2 and SimConnect to be installed for OpusFSX 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 or are using OpusFSX on a client PC only for Client Side Weather Control (where FSX is not installed) then you can try installing it using the SimConnect.msi file within your OpusFSX folder.

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 FSXSERVER and FSXCLIENT 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 OpusFSX configuration dialog and located its installation folder? If you have not then OpusFSX will be trying to connect to the wrong sim type!

FSX freezes or my aircraft will not move

If you have a standalone system you must only run the 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.

When I install the licensed software and run FSXSERVER it runs in demonstration mode

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

OpusFSX can only be installed on one drive in one folder. Uninstall any old versions of OpusFSX using Control Panel, Uninstall a Program. Do not delete your 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.

It may be a problem with a corrupt licence file, you should not open the licence file. Reinstall the Flight1 purchase file again (refer to Reinstalling OpusFSX on a new or reformatted PC).

The master battery and parking brake indications aren't correct

You need to install FSUIPC4 on the OpusFSX 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.

Reinstalling OpusFSX on a new or reformatted PC

If you have your licence and key files on drive C in the **C:\Opus Software** folder then download and run the Flight1 purchase file (http://www.opussoftware.co.uk/opusfsi/OpusFSX_Flight1_Purchase.exe) and choose the option to reinstall using the key file (<http://www.flight1.com/view.asp?page=wrapperinfo#usekey>). If you purchased via credit card use the last four digits of the credit card as your password, otherwise use your order password, you can request your order password (<https://www.flight1.com/view.asp?page=lostorder>) from Flight1 if you have forgotten it, there are different passwords for each order.

If you have lost your licence and key files then download and run the Flight1 purchase file (http://www.opussoftware.co.uk/opusfsi/OpusFSX_Flight1_Purchase.exe) and choose the option

to reinstall using your Flight1 account,

(<http://www.flight1.com/view.asp?page=wrapperinfo#useaccount>) you will need your email and order password, you can request your order password

(<https://www.flight1.com/view.asp?page=lostorder>) from Flight1 if you have forgotten it, there are different passwords for each order. You can request your account password

(<http://www.flight1.com/view.asp?page=acctpwd>) from Flight1 if you have forgotten it.

If you don't have a Flight1 account then you can create one

(<http://www.flight1.com/login.asp?mode=new>) and assign

(<http://www.flight1.com/view.asp?page=assign>) previous purchases to your account.

If you still can't reinstall then request a new key file

(<http://www.flight1.com/view.asp?page=wrapperservice>) from Flight1.

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 OpusFSX 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.