

Installation manual

Project Airbus A32x* FD-FMC Version 1.55

Please, read the user manual about the Authors copyrights

“Unzip” « [PA_A32xFD-FMC_IAE_CFM.zip](#) » file in a temp folder.

Since version 1.55, FD-FMC aircraft packs are provided with an automatic installer for FSX.

Automatic installation (only for FSX) :

Run “Setup.exe” program, located at the root of your unzip pack.that will install automatically all files and software required and will declare DLL modules in your FSX. Nothing else to do !

If Setup.exe has to edit your “dll.xml” file, it create a backup file called “*dll.xml_Before FD-FMC.xml*”.

Please note that if you had a previous version of a PA 32x FD-FMC, it is recommended to delete the old aircraft folder before run Setup; Think to backup your aircraft repaint textures before.

See chapter 9 to know how check airport database according your addon Sceneries.

Check FreenavDBgroup website for panel and airport database updates.

Panel updates will come with an auto-updater.

If you want to do a manual installation, please read instruction following pages

* Replace “x” by your aircraft version (A318, A319, A320 or A321)

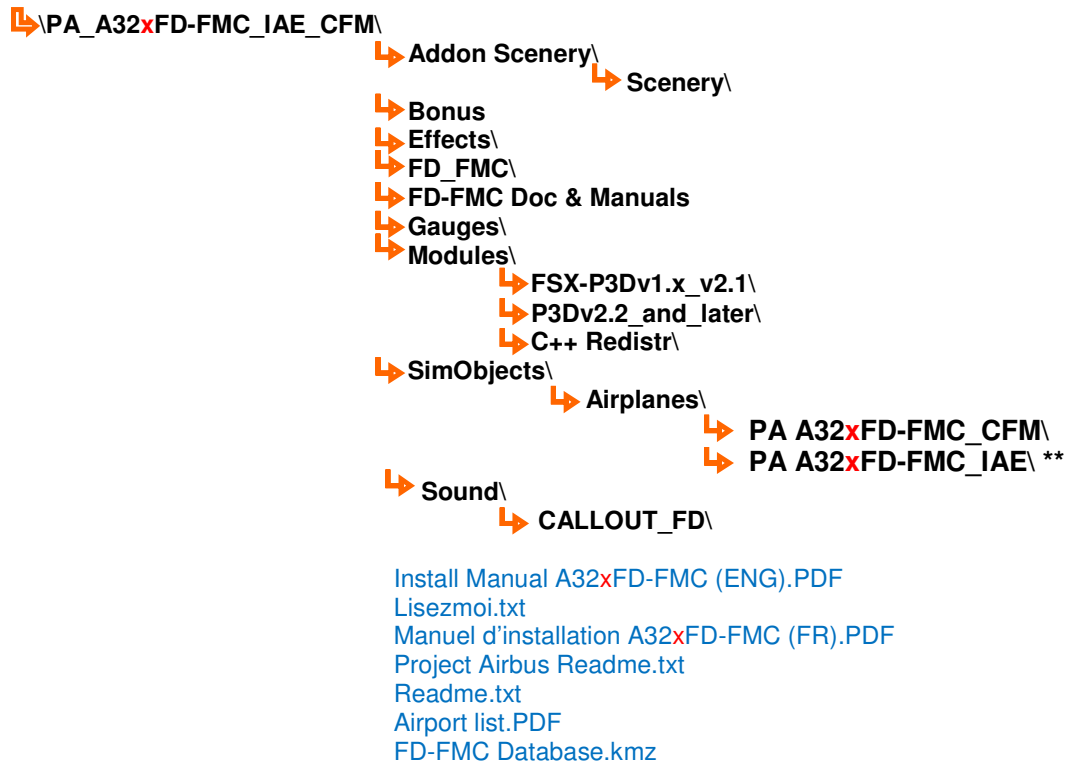
** If an IAE version exists

Setup.exe is © François Doré 2016

Manual instalation (FSX & P3D):

“Unzip” « [PA_A32xFD-FMC_IAE_CFM.zip](#) » file in a temp folder.

You must have the following tree directories (Blue color corresponds to files at the root of the pack) :



1. Copy « **Effects** » folder contents (a « .fx » files list) in your FSX/P3D « **Effects** » folder. If Windows ask you to overwrite existing files, reply by yes if the pack's file is most recent.
2. Copy « **Gauges** » folder contents (« [Callout_sound.dll](#) » and « [A32xFD-FMC.CAB](#) » files) in your FSX/P3D « **Gauges** » folder.
3. « **Sound** » pack's folder, includes a subfolder called « **CALLOUT_FD** » : Copy this folder in your FSX/P3D « **Sound** » folder. If you have already this folder, overwrite with these new updated files.
4. « **SimObjects** » pack's folder includes a subfolder called « **Airplanes** » ; which has 2 subfolders called : « **PA A32xFD-FMC_CFM** » and « **PA A32xFD-FMC_IAE** » . A321 is provided in two engine versiond, in separates folders.
Copy the whole « **PA A32xFD-FMC_CFM** » & « **PA A32xFD-FMC_IAE** » folders in your FSX/P3D « **SimObjects\Airplanes** » folder.

* Replace “**x**” by your aircraft version (A318, A319, A320 or A321)

** If an IAE version exists

5. Modules installation required by FD-FMC :

If you have already installed a FD-FMC aircraft, you can jump to chapter 9

« \Modules_required\ » folder has two subfolders :

- « \FSX-P3Dv1.x to v2.1\ »
- « \P3Dv2.2 and later\ »
- « \C++ Redistr\ »

If you use FSX or P3D from version 1.0 to version 2.1:

You must use the file « XMLTools.dll », which is located in the pack's folder : « \FSX-P3Dv1.x to v2.1 »; Copy this file to the FSX/P3D root folder. « XMLTools.dll » is an all in one module, which include « LoggerX.dll »(the module that allow HD read/write operations) and XMLVars.dll, a module which allows to work with string variables . Version provided with the pack is the version 2.0 of XMLTolls.dll. So, remember, you have just one all in one module in this case.

If you use P3D V2.2 or later :

Then you have to install two independents modules located in the « \P3Dv2.2 and later\ » folder : « XMLTools3D.dll », that is a specific version designed for the latest P3D version, that you must copy at the root of your main P3D folder and « LoggerX.dll » (version1.1), that you must copy in a subfolder of P3D called « Modules ». If you have FSUIPC , this folder exists already, but if you haven't or if you don't find this subfolder, you must to create it.

Now, these modules require a manual declaration in a FSX/P2D file, to be available for your Simulator. This file, called « DLL.xml » is a FSX/P3D configuration file. See « 8 » to know how to declare your modules.

6. Copy the whole « \FD_FMC\ » folder of the pack at the root of your FSX/P3D folder. This folder contains more than 200 airports ready to use, realized by the Freenavdbgroup Team.
7. When « \FD_FMC\ » folder installed in your FSX/P3D folder, Open it and you will find two files with all the ICAO airports folders.
The first one called « [FD-FMC database.kmz](#) » allows to see in Google Earth, all airports provided with the aircraft pack. Later, when you will download new airports, you will find on the FreenavDBgroup website, .you will be able to download the updated KMZ file, with new airports.

The second one is called « [FMC_Path.ini](#) » .

Open this file with a text file editor like Notepad ++, and you can see that there is a single line inside : This is the path where FSX/P3D saves his flight plan files : But the actual line is the path of my configuration and you have to change this line with your own folder path, otherwise, FD-FMC will cannot saves its modified flight plan files and data files.

This path is generally:

« *C:\Documents and Settings\Your User name\My documents\Flight Simulator X Files* »

You will notice that each « \ » character must be doubled ! And that you must ending the line by a double « \ », **without trailing spaces !**

When you wrote your path, save your « [FMC_Path.ini](#) » file at the root of « \FD_FMC\ » folder. If this file is not correctly filled, FD-FMC will cannot save its data and flight plan files.

See chapter 9 to install Airports data files and Frenav AIRAC file.

8. DLL's DECLARATION

Two different procedures according if you have FSX/P3D v1.x to v2.1 **or** P3D V2.2 and updates

8.1.1 FSX or P3D v1.x to P3D v2.1 users :

FD-FMC requires only one DLL, called « [XMLTools.dll](#) », provided with the Aircraft pack or you can download it with this link : [XMLTools.dll on FSDeveloper website](#)

This new version of the Tom Aguilo's DLL includes XMLVars.dll and LoggerX.dll in an all in one module

Check if you copied « [XMLTools.dll](#) » file at the FSX/P3D main root folder, like is describe chapter « [5](#) ».

Now, you must declare this « DLL » in a FSX/P3D configuration file called : « [dll.xml](#) ».

This file can be in two different places, according your **Windows** version.

Note : This folder or files can be « hidden », or « system », so, you must set your file explorer to see hidden files and you must have Admin rights for others users than **XP** » users.

If you have **Windows XP** , [dll.xml](#) file is located in the following folder :

[C:\Documents and Settings\Your User Name\Application Data\Microsoft\FSX\](#)

If you have **Windows Vista** or **Seven** , [dll.xml](#) is located in the following folder :

- [C:\Users\Your User Name\AppData\Roaming\Microsoft\FSX\](#)

Before to do any change on this file, do a backup of the original file !.

Open this file with a text Editor like Notepad or Notepad++ !

Look at :

File, after a header, has a list of sections, which begin by the following tag:

[<Launch.Addon>](#)

.....

.....

And ending by this tag

[</Launch.Addon>](#)

A section must always stay undivided, so, never insert a text inside a section.

To add a section, you must always do that after a tag [</Launch.Addon>](#) .

Section order has no importance. No priority.

To declare **XMLTools.dll**, Copy and paste in the file, the following section :

```
<Launch.Addon>
  <Name>XMLTools</Name>
  <Disabled>False</Disabled>
  <ManualLoad>False</ManualLoad>
  <Path>XMLTools.dll</Path>
  <DIIStartName>module\_init</DIIStartName>
  <DIIStopName>module\_deinit</DIIStopName>
</Launch.Addon>
```

Save « [DLL.xml](#) » file

Launch FSX or P3D ; and answer by yes to the message box about the new DLLs.

You can skip to chapter [9](#)

8.2 P3D v2.2 and updates users :

FD-FMC requires 2 DLLs, located in « **\P3Dv2.2 and later** » folder, because XMLTools.dll is not compatible with the newer version than **P3D v2.1**

XMLTools3D.dll is a specific version to P3D v2.2 and updates. Today, this module doesn't include LoggerX.dll, so you will have to install this second DLL. **Read Chapter 8.1.1**, to know where is located « **DLL.xml** » file and the procedure to insert the following sections in the file.

To declare **XMLTools3D.dll**, insert the following section in « **DLL.xml** » file as described in **Chapter 8.1.1**.

```
<Launch.Addon>
  <Name>XMLTools3D</Name>
  <Disabled>False</Disabled>
  <ManualLoad>False</ManualLoad>
  <Path>XMLTools3D.dll</Path>
  <DIIStartName>module_init</DIIStartName>
  <DIIStopName>module_deinit</DIIStopName>
</Launch.Addon>
```

To declare **LoggerX.dll**, Copy and paste the following section :

```
<Launch.Addon>
  <Name>LoggerX</Name>
  <Disabled>False</Disabled>
  <ManualLoad>False</ManualLoad>
  <Path>Modules\LoggerX.dll</Path>
  <DIIStartName>module_init</DIIStartName>
  <DIIStopName>module_deinit</DIIStopName>
</Launch.Addon>
```

Save « **DLL.xml** » file.

Launch P3D ; and answer by yes to the message box about the new DLLs.

If, despite the correct installation of modules, FD-FMC do not display properly SID, STAR or approaches data, it could be that your C++ Windows library is not updated to run « **XMLTools.dll** » or « **XMLTools3D.dll** » of Tom Aguilo.

This is the reason why you will find a third folder, called « **\C++ Redistr** », which allow to update the Windows C++ library. Install this update only if nothing works after the end of the installation.

I many thank Tom Aguilo, and Robbie Mac Elrath, modules authors, agreeing that I can include with this pack.

9. AIRAC and modified AFCAD installation and Airports files preparation

FD-FMC use a file system based on an AIRAC file created by FreeNavDB Group members and updated regularly. It uses also Airports « folders », which include data files for SID, STAR and approaches. Folder that includes Airports data is called « **\FD_FMC** ». This folder contains as many folders of Airports, named by their ICAO four letters code.

After, check « **\FD_FMC** » folder contents : You can see that few folders have a name longer than the 4 ICAO code letters. This means that these airports have a special feature or need to make a special installation procedure, or that there have been designed for specific addon Scenery. See inside these folders, you have always a "readme" text file to know what you must do.

But you must think that FD-FMC requires that an Airport folder must have only a name with only the four ICAO letters. So, you will have to sort out which folder you have to keep, or delete or install with a specific procedure !.

Example, EDDF – Frankfurt (Germany) comes in 2 versions :

- First folder is called « **EDDF** »
- Second folder is called « **EDDF Aerosoft Mega airport 1.05** »

The first one is designed to be used with the FSX/P3D default Airport then the second, is designed to be used with the Aerosoft Scenery (because it has new Runways, and existing runways haven't the same name that the FSX/P3D default Airport. This Aerosoft version can work with a Freeware Scenery, which has been updated.

Delete the folder that you will not use. If you have the « Aérosoft », Scenery or a AFCAD updated, delete the « **EDDF** » folder and rename the « **EDDF Aerosoft Mega airport 1.05** » folder in « **EDDF** ».

Other folders have their name like this : « ICAO – Read Install file » ; read the text file include in the folder to know what you have to do ; In the most case, this Airport type is provided with an updated AFCAD, to add a missing ILS for example. You will find this AFCAD in the Airport folder, and you will have to copy it in your FSX/P3D « **Addon Scenery\Scenery** » folder; After, rename always the airport folder with only the four ICAO letters.

All the « **\FD_FMC** » airports folders, with already their 4 letters ICAO name are designed to work with FSX/P3D default airport, but it can works, in the most cases, with addon scenery, if there was no change in runways;

This initial preparation is essential!

Updated AFCAD (when they exist) can be found in the Airport folder that have a special name and also in the « **\Addon Scenery\Scenery** » folder of the aircraft pack.

When your installation is completed, all airports folders must have only a 4 letters ICAO names !

Like FSX/P3D nav aids database date of 2005, many actual waypoints are missing for SID, STAR and Approaches.

To solve this problem, FreeNav DB Group has decided to create its own AIRAC, totally Freeware, created and updated periodically when new airports are published.

If you want use FD-FMC to manage SID, STAR and approaches, you have to install and update this AIRAC file.

Aircraft pack is provided with an AIRAC updated for all airports provided in the pack. When you will download new airports on the FreenavDBgroup website, you will have to download the new AIRAC file to replace the existing version, otherwise, new airports will not work properly.

AIRAC file is always named « FreenavAIRAC_mmddyyy*.BGL » and it is located in the aircraft pack folder « **\Addon Scenery\Scenery** ». You must copy this file in your FSX/P3D « **\Addon Scenery\Scenery** » folder.

Each time that you download an update of the AIRAC, you must delete the old version :

There can be only one copy of the file AIRAC same time!

This is also in the « \Addon Scenery\Scenery » folder that you must place all the modified airports AFCAD, when they exist.

This database, is totally freeware and open source, and if you want update, download new Airports, or download a tools kit to create and participate to the project, go to the Freenav Website

<http://freenavdbgroup.com/>

*: Numbers are Month, day, year.

10. AIRAC UPDATE AND DOWNLOAD NEW AIRPORTS

Go on the FreenavDBGGroup website to know airports database updates and new AIRAC.

<http://freenavdbgroup.com>

You will find on the website, aircrafts panels updates.

11. IF YOU WANT TO PARTICIPATE TO THE AIRPORTS DATABASE CREATION

This is very simply to create data files for SID, STAR et Approaches, for FD-FMC and you can join us to build this database. You're welcome to **Freenav DB Group**

You will find on the website, a tools kit, to allow to create airports data files with a user manual in English and French, and many information added periodically

12. COPYRIGHTS & AUTHORS

PA A321 Aircraft is © Project Airbus
XMLTools.dll is © Tom Aguilo
XMLTools3D.dll is © Tom Aguilo
LoggerX.dll is © Robbie McElrath
Callout_Sound.dll is © Doug Dawson
AIRAC files are © FreenavDBGGroup
Airports Database is © FreeNavDBGGroup
FD-FMC panel and gauges are © François Doré
Engines sounds are © Adam Murphy

You can go on the following website to check is there are updates for these modules :

- [XMLTools.dll](#) (v2.0) et [XMLTools3D.dll](#) (v1.0) of Tom Aguilo can be downloaded on this website : [XMLTools.dll on FSDeveloper website](#)
- [LoggerX.dll](#) (v1.1) of Robbie Mc Elrath can be downloaded on his website : <http://www.robbiemcelrath.com/blackbox/?logger>

You will find on the Robbie's website, some gauges (Black box for example) and very good guidebooks about the FSX GPS functions or « CustomDraw » programming.

I many thank **Tom Aguilo**, **Robbie McElrath** to give me the authorization to use their modules for this project. Without them, I would not have been able to create FD-FMC.