



Quickstart

AivlaSoft EFBv2
User Guide

Copyright

No pictures or textual citations or parts thereof from this User Manual must be published without written consent by Apprimus Informatik GmbH, nor must they be reproduced or copied to a Server of any kind or made publicly available in any way. This also applies to any kind of duplicating, storing and processing in any electronic system.

'AivlaSoft' is a brand of Apprimus Informatik GmbH.

All Trade Marks mentioned in this User Guide are property of the respective right holders.

Disclaimer

EFBv2 must **only** be used for flight **simulation**, not for real world aviation.
Please also see the license agreement.

Please address any comments, questions and proposals to:

Apprimus Informatik GmbH
In der Gass 19
8627 Grüningen
Schweiz

info@aivlasoft.com

Table of Content

1	Overview.....	4
1.1	Purpose of this Quickstart Document.....	4
1.2	Installation and Conditions.....	4
1.3	Limitations.....	5
1.3.1	Microsoft Flight Simulator 2020 / MSFS.....	5
1.3.2	X-Plane.....	6
2	First Start (very important, read carefully!!).....	8
3	The Client.....	12
3.1	Basic Concept.....	12
3.2	User Interface Screen.....	14
3.3	Functions (Overview).....	15
3.4	Routing Shortcut Bar (RSB).....	16
3.5	Chart Options.....	16
3.6	Sidebar.....	16
3.7	Terrain.....	17
3.8	Minimums.....	17
3.9	TOPCAT.....	18
4	Finally.....	19

1 Overview

1.1 Purpose of this Quickstart Document

To facilitate accommodation to you freshly acquired product, we will describe a quickstart with this guide. Nevertheless it is of utmost importance to recognize the following:

- The Quickstart Guide is no replacement for the more detailed User Guide
- The difference to earlier EFB products is remarkable to say the least. Therefore practically none of the former information applies to EFBv2.

1.2 Installation and Conditions

The Simconnect.dll is no longer required, it has been replaced by FSUIPC. The freeware version is sufficient for all functions of EFBv2. It can be downloaded here: <http://fsuipc.com>

X-Plane does not require FSUIPC.dll

Following Simulators are supported by EFBv2 (the minimum required FSUIPC version is indicated in brackets):

- 64 bit: **MSFS** (FSUIPC7)
- 64 bit: **P3D v4, v5** (FSUIPC 6.0.3)
- 32 bit: **FSX** (including FSX:SE), **P3D v2, v3** (FSUIPC 4.974)
- **X-Plane 11**, from version 11.30

The installation of EFBv2 includes three main programs:

- **Server** (Interface between Simulator and EFBv2)
- **Database Builder**
- **Client** (Interface between User and EFBv2 -> the User Interface)

The installer for the Server also includes the Database Builder, whereas the Client features its own installer.

For the Server and the Database Builder it is **mandatory** that they are installed on the same computer as the Simulator, whereas the Client can also be installed on your private Local Area Network (if available).

1.3 Limitations

1.3.1 Microsoft Flight Simulator 2020 / MSFS

There are a few functions that are not or not yet available for MSFS. The main reason being is the still rather incomplete SDK which still consists of too many empty items to allow to fully benefit from all possibilities in MSFS. The following functions are not (yet) available or may work a bit differently to what is described in the current manuals:

- COM-Frequency tuning is not available yet
- Ground layouts are available in the EFB Database for each airport. However we cannot display tarmac layouts (Aprons).
- Airports purchased via Marketplace Online Store often feature user-specific encrypted files instead of the usually 'open' BGLs. Encrypted files make it impossible to read the required ground layout information and therefore EFB cannot depict the ground chart of such an Add-On airport. If the data files are encrypted, only the default Ground Chart will be available.
- Detecting of addon-airports is not always possible, therefore the 'circle around the asterisk' on the world map is not 100% reliable.
- AI Traffic is visible, but the definitions are not yet clear. We display what FSUIPC7 is supplying but there is no specific information available in the SDK.
- Weather cannot be read from the Simulator. To bypass this please select "Real Weather" as the weather provider. This can be done in the Client settings (tab 'Global').
- Flight plan handling is similar to the well known default GPS Flight Plans in FSX/P3D. A flight plan can still be created externally by PFPX, SimBrief or similar. A flight plan can also be created using the EFBv2 functionality. Once an EFBv2 flight plan has been created DO NOT LOAD THIS FLIGHT PLAN FROM THE MSFS START SCREEN! The Flight Plan is created within EFB2 and then automatically transferred to the default GPS of the MSFS aircraft. Editing of the Flight Plan and adding SIDs, STARs and APPROACHES is possible in the usual way. It must however be noted that the Flight Plan Display in the default NAV Displays of the MSFS aircraft is rather incomplete. At present no custom waypoints are displayed, as well as no procedures. However the ROUTING AS DISPLAYED IN THE EFB2 CLIENT WILL PROPERLY BE FOLLOWED IN GPS/NAV MODE.

1.3.2 X-Plane

A few main features of EFB V2.1 are limited when using X-Plane (compared to the use with P3D/FSX). Please read carefully the limitations described hereafter.

Compatibility

EFB V2.1 is only compatible with Laminar's X-Plane 11.30+. Backwards compatibility is neither possible nor available.

Ground Layout and Taxi

Due to entirely different specifications for airport ground layouts, the ground chart of an X-Plane Airport in EFB will look different in many aspects as you might be used from MS-based Simulators.

Depiction of Taxiways in EFB is dependent on "Taxi Routes" which must be defined in the apt.dat file. Also the "Taxi-Out" and "Taxi-In" functions of EFB are only available if "Taxi Routes" are defined in the apt.dat file on the chosen airport. Especially older Add-Ons sometimes are missing "Taxi Routes".

Weather

Internal weather data directly from the simulator (Client settings: "Weather provider = Simulator") is not available, again due to entirely different specifications.

Traffic

Traffic data is limited to 19 aircraft. Traffic data is also not as detailed as in FSX/P3D. Only latitude, longitude and altitude is available through DataRefs. Groundspeed, track and vertical speed have to be calculated by EFB, derived from available X-Plane DataRefs.

Profile loading

Currently X-Plane does not offer a DataRef which would allow to figure out which aircraft is loaded. To identify the currently loaded aircraft, EFB is therefore using the ICAO code stored in the aircraft's ACF-File. This ICAO code can be specified in the "Airfile" textbox of the corresponding EFB profile (using Profile Editor). Unfortunately not every ACF file provides the information about the ICAO code. If you run the program „PlaneMaker“ you can verify the ICAO code on the 4th line under the menu „Standard“, „Author“. If there is no ICAO code for a certain aircraft, you have to manually load the corresponding aircraft profile in EFB.

Flight plan loading

Currently it is not possible to automatically load a GPS flight plan into the X-Plane's GPS/GNS system. However, the GPS flight plan will be created according to the latest specs and it will also be saved into the proper directory where it is expected by X-Plane, named „EFB_current_gps.fms“. Loading must be done manually using the standard functions of the default GPS/GNS device in X-Plane.

Flight plan alterations

For the same reason as described above, altered Flight Plans cannot be transferred automatically into the default X-Plane GPS/GNS system. Nevertheless an altered Flight Plan can be re-loaded from the same directory using the same default name „EFB_current_gps.fms“ as described above. Activation of the new Flight Plan must follow standard X-Plane handling procedures.

2 First Start (very important, read carefully!!)

After a successful and complete installation it is **mandatory** to start the **Server first, before you start the Client**. If the option "Start Server" on the final dialog window of the installer has been selected, then the Server will be started automatically. If that option has not been selected, then please start the EFB Server now manually, either by a click on the EFB Server icon on the Desktop, or via the Windows Start menu.

You will then be prompted to insert your license key, followed by your name and your email address, however it is sufficient to enter your name and email address only to register for a time-limited Demo-License. This has no influence whatsoever on EFBv2's functionality.

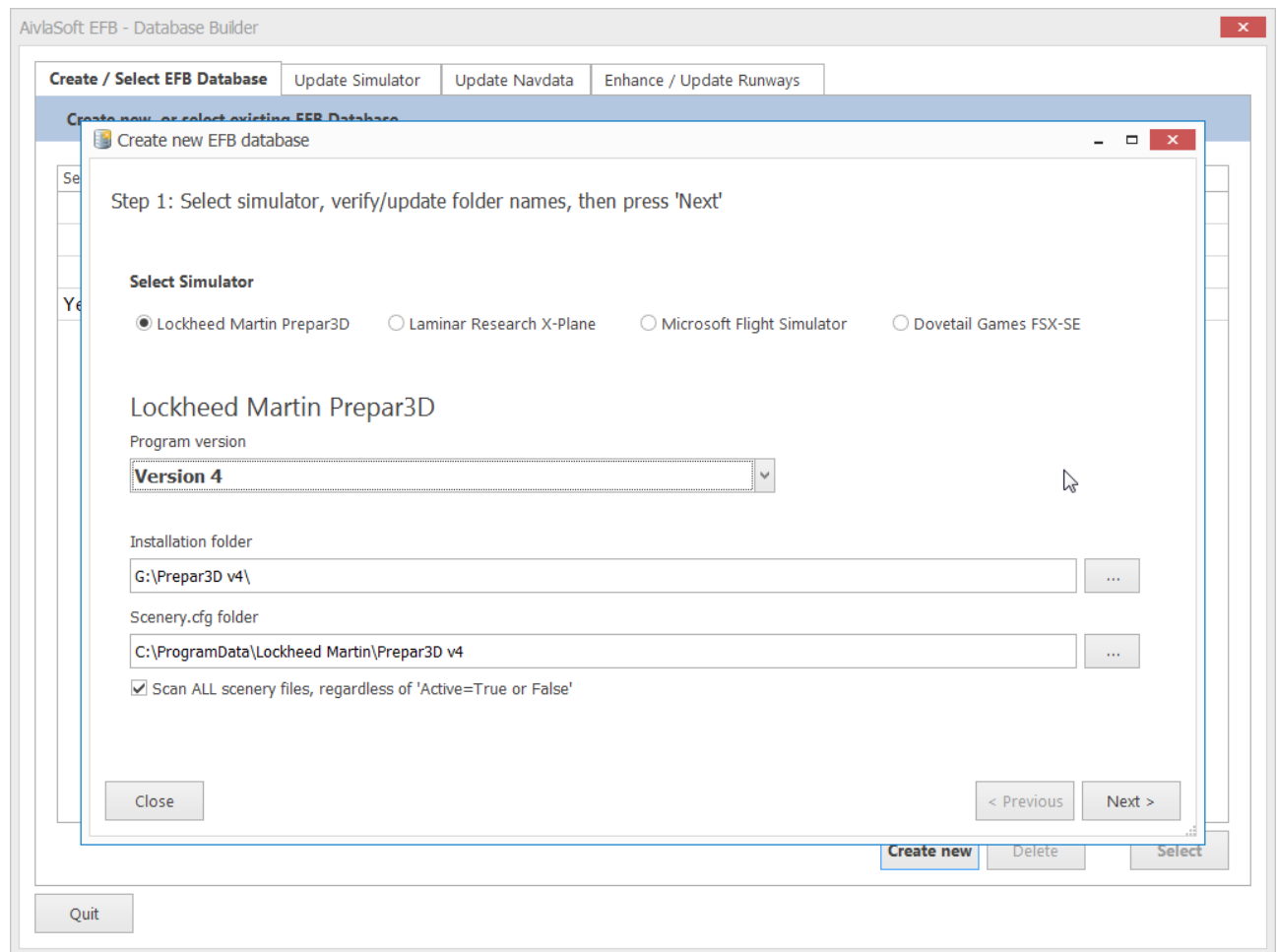
First thing that the Server does is checking for a database. As there can't be a valid database before the first start of EFBv2, the Database Builder is started automatically.

The Database Builder is the program responsible for creation and administration of all data required by EFBv2 for proper function. In short: it will search for all airport-sceneries (Standard and Add-On) as well as Standard Navigation Data. All necessary items will be extracted and matched with a Navigation Database. The latter is at this time offered by two providers:

- Navigraph with "FMS Data" (based on Jeppesen data), and
- Aerosoft with "NavDataPro" (based on Lufthansa/LIDO data).

One of those has already been selected by you during the installation process.

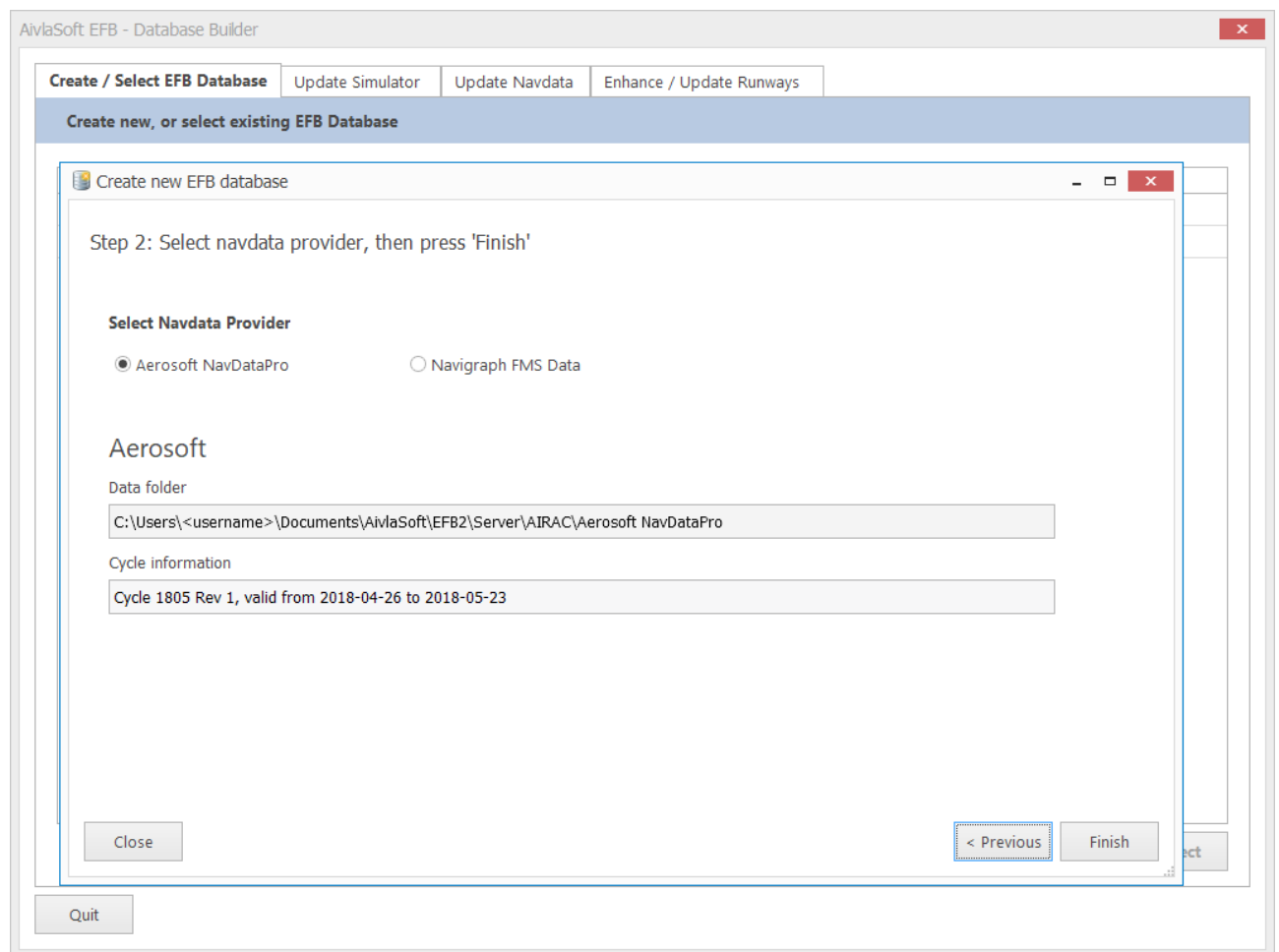
On the next page you see the automatically opened dialog (step 1) which let's you select your simulator.



Choose the simulator for which you want to create the database (Prepar3D v4 in this example) and press "Next". This leads you to the next page (step 2):

X-Plane

Please note that airport files (apt.dat) can only be read starting from specification 1000 and higher. Older specifications will be ignored but will create a logfile entry type „warning“.

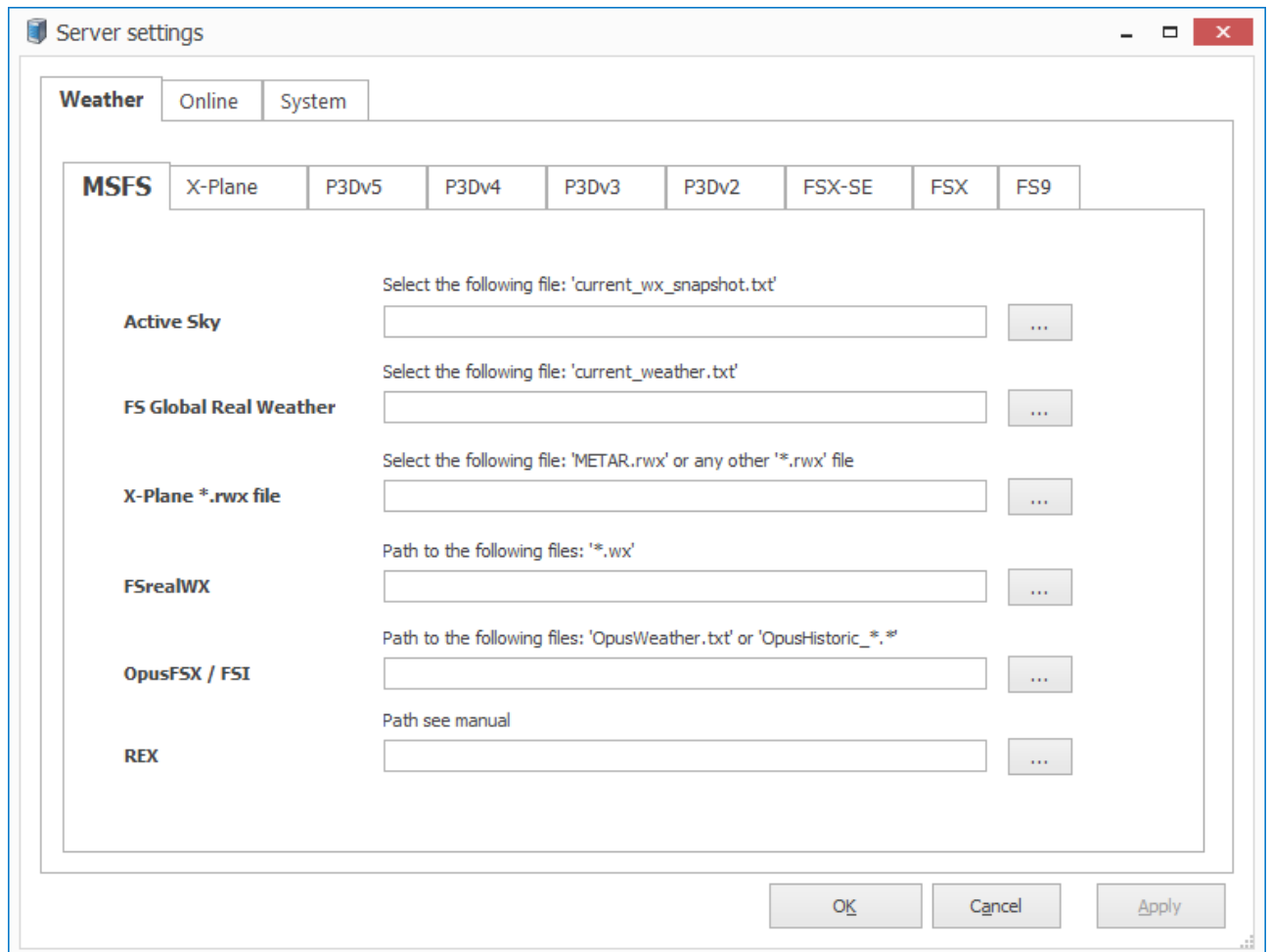


On this dialog (Step 2) select the Navdata Provider that you have chosen to install. EFBv2 now checks its presence. An invalid selection is leading to invalid Data folder and Cycle Information indication. The creation process is initiated by pressing the "Finish" button. Depending on your computer's performance this can take some 2-3 or even more minutes.

This concludes the creation process and under normal circumstances no additional steps are required. Follow the instructions to shut down the Database Builder. You have the choice between shutting down the Database Builder only or subsequently restarting the Server.

For more information about additional functions of the Database Builder please refer to "4 EN Database.pdf" of EFBv2's documentation.

At the restart of the Server there are only few more additional settings required. Open the "System" menu and select the option "Settings and more...", click the "Settings" button and select the tab of the simulator intended for use (MSFS in this example).



If you use a Weather-Program, select the access path for the respective program's data. Confirm your selection by pressing "OK". This completes the Creation Process of the Database and you can now start the Client.

3 The Client

3.1 Basic Concept

Chart Types

There are two Chart Types "Ground" and "World". One of them is always visible and at starting up the Client the last Aircraft Position is always in the centre of the screen. Depending on the Aircraft's state (airborne or on ground) the applicable Chart Type is automatically selected.

Aircraft Profiles

Different aircraft have different requirements for displaying the various objects on the EFBv2 screen. The Aircraft Profile is loaded automatically at the start of the Client, depending of course of the availability of a profile for the aircraft in use. Otherwise a warning will be displayed and the Default Profile (similar to a Cessna C172) will be loaded. The basic installation of EFBv2 includes more than 60 profiles of the most popular aircraft used in today's Flight Simulation. To create or edit profiles please refer to the document "Client" of EFBv2's Documentation.

Active Airport

In EFBv2 one airport is always declared the "active" airport. its ICAO Code, Name and Country is displayed on the header of the Client's window.

Three different activity modes are used (depicted by a Capital Letter in front of the ICAO Code):

- **A** - Automatic Mode (green). This is the normal mode if no other selection is active. it is always the closest airport to the Aircraft's position and always active immediately after EFBv2 is started.
- **M** - Manual Mode (blue). An airport is manually selected.
- **D** - Destination Mode (amber). This mode is only active when a Flight Plan is in progress and the aircraft's distance to destination is going below a certain value set in the Aircraft's profile.

Procedure Mode

EFBv2 differentiates between "Arrival" and "Departure". Depending on the selected mode the respective procedures will be displayed. There will never be a SID and a STAR on display at the same time. You can however select SID and STAR for the same airport and have it displayed by switching between the two modes. More details about Procedures can be found in the document "Client" of the EFBv2 documentation.

Flight Phases

A flight can have up to 5 different Flight Phases: On Ground, Departure, Enroute, Arrival and Landed. Different Flight Phases can lead to different presentation of relevant data on the screen. Many of those are controlled by the Aircraft's Profile.

Moving Map

There is no need to describe the term "Moving Map". EFBv2 however has an additional feature being active all the time. Whenever you move the Map Position by mouse dragging, after a certain time (defined in the Settings Dialogue) it repositions back to the the original position (Aircraft position centred).

AutoZoom

An Autozoom Function is available to set the zoom level depending on Flight Altitude (World mode) or Taxi Speed (Ground mode) to a predefined value. They can be assigned individually in the Aircraft's Profile.

Master / Sync

If you run more than one Client in a Network Configuration, the first Client connected to the Server has a higher priority level (Master). A few functions can the only be performed by the "Master", which is recognized by the blue "MASTER" indication on the Status Bar.

Data Synchronisation

There is no need to unlock certain data paths in a Network Configuration. Data Synchronisation between Server and one or more Clients is done automatically at each Client's start up.

3.3 Functions (Overview)

Airports

Manual airport selection by ICAO code or name

The (i) = Information Button

Opens a window with additional information on the airport adjacent to it, the active airport. The following information is available (among others): geographical coordinates, Add-On yes/no, METAR and TAF String (if available), closest navigation facilities, parking spots.

PROC

Allows selection of all published Departure- and Arrival Procedures (if available) of the active airport and detailed depiction on the map. A straight-line approach (Runway Extension) of 3, 5 or 8 NM (for departure 3 and 5 NM) can be displayed anytime for each available runway.

Taxi

A simplified taxi-aid to find your way to the Departure RWY or after landing to your Parking Spot. Attention: This function is purely experimental and uses an algorithm to find the shortest way. It is only based on the information derived from the BGL-File, or apt.dat file of the respective airport. This information is often insufficient or even faulty.

FPL

Creation of a Flight Plan. There are several ways to create a Flight Plan - preflight or even inflight. Each element on the (world) map can be inserted into a Flight Plan. A right click with the mouse opens a context menu offering the respective options. EFBv2 also allows creating and inserting Custom Waypoints at arbitrary positions. The latter can even be repositioned at any time, even in an active Flight Plan. Flight Plans can also be transferred into the Default GNS/GPS of the current MS-based Flight Simulators. More information on this considerably complex subject can be found in the document "Flightplan".

Radio

All COM and NAV frequencies can be transferred into the active aircraft. The list of frequencies is situational. Activate the required NAV/COM unit by clicking the respective frequency box. Then double click the required frequency from the list. This transfers the selected frequency into the STANDBY window.

CHKL

If checklists are available for a specific aircraft type, they can be called up from within this window. Existing checklists from previous EFB versions can be imported.

DOC

This window gives access to the complete documentation of EFBv2. Furthermore all Flight Logs of previous flights can be accessed and displayed.

Utils

A collection of a few additional help functions can be called up from within this window.

3.4 Routing Shortcut Bar (RSB)

The Routing Shortcut Bar is a practical means to give quick access to the most important information during the current flight on an Active Flight Plan. The "AUTO" Button allows restoring the normal display with a single click. Open windows will be closed and (if deactivated) the Moving Map is reactivated and the Auto-Zoom value will be restored.

3.5 Chart Options

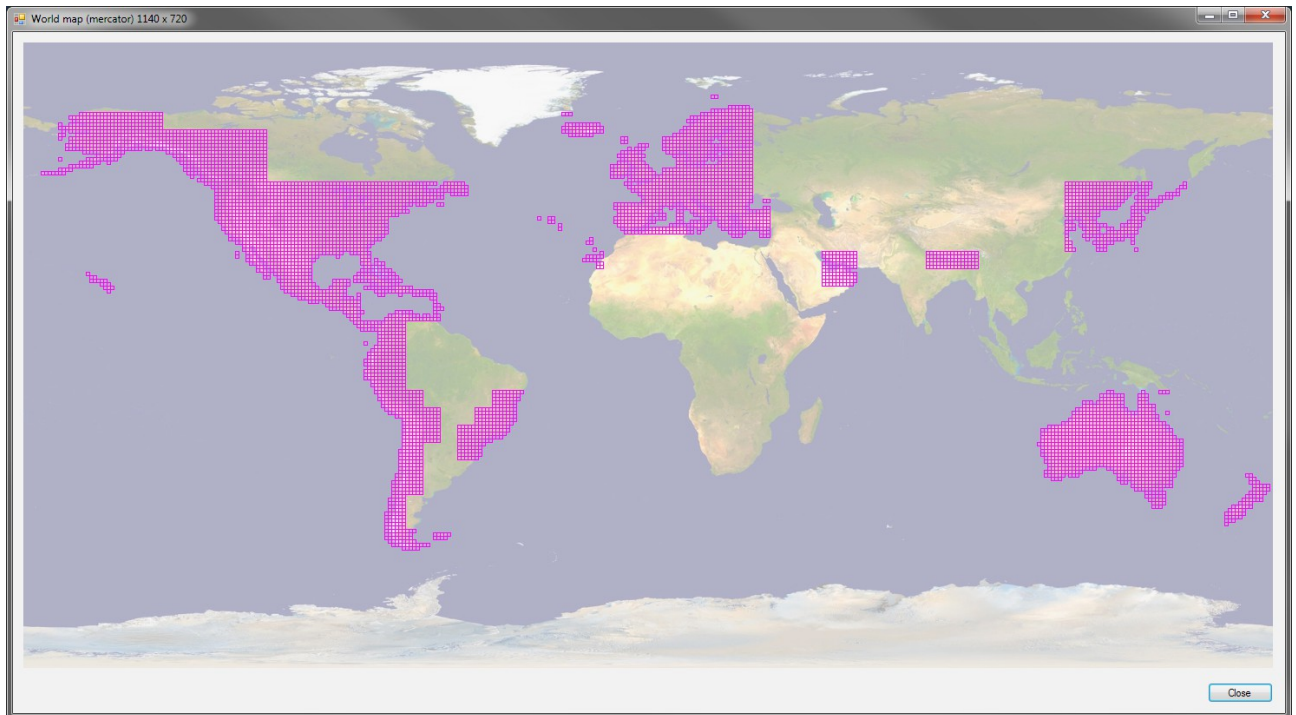
This controls the amount of displayed items on the map. The selection is being stored individually for each chart (Ground or World). If hovering the mouse pointer above the button, a descriptive tooltip will be presented.

3.6 Sidebar

This is the place for additional information on the current situation. The topmost field indicates the actual time (UTC-World or UTC-Simulator). Clicking this field opens an additional window featuring three different timers. When the aircraft is airborne, the first timer defaults to Flight Time (Flight Time Counter). The next field "STATUS" right below is the only non-collapsible field. Depending on the Flight Status (with or without Flightplan) additional fields with Flight Plan information will be presented. Each of them can be manually collapsed/restored. Additionally in the Settings Dialogue automatic situational collapsing/restoring can be selected. To bring out a specific line for better visibility it can be clicked to highlight.

3.7 Terrain

When selected, EFBv2 offers Terrain Data (Contour Lines) on the World Map. All altitude information is referred to the field elevation of the active airport. Data are derived from the ASTER/GDEM mission and are widely identical to the terrain meshes used in most Flight Simulators today. Calculation of the Contour Lines is a time-consuming process and currently still under way. With the present Installer the Regions shown in the map below are covered:



3.8 Minimums

EFBv2 allows presentation of Approach Minimums. Unfortunately Minimum data is not contained in the AIRAC cycle data and has therefore to be added and edited manually. Minimum Files can easily be compiled by the user(s) having the respective knowledge.

In the same data folder you can add data files for the Initial Climb Clearance altitudes. These files can also be created/edited easily using a simple texteditor like „Notepad.exe“.

At the User Forum from AivlaSoft (Section „Contributions“) you will find Minimum files and Initial Climb Clearance data for approx. 2000 airports worldwide. These files will be updated from time to time and can be copied/pasted over the already available files in the respective data folder.

3.9 TOPCAT

EFBv2 provides an interface to the well know TOPCAT performance calculator (<http://www.flightsimsoft.com>). A fully licensed version 2.40 or higher of TOPCAT is required. if the installation of TOPCAT is recognised by EFBv2, you can initiate performance calculations directly from the procedure dialogue.

4 Finally

Important:

As already mentioned at the beginning, this Quickstart Guide is in no way a replacement for the highly detailed documentation of EFBv2. It is essential to read the User Guide before asking questions on a specific subject in the User Forum. We are however also aware that despite careful editing Errors or Deficits can show up which call for revisions. For all such matters of course our User Forum <https://forum.aivlasoft.com/> is at your disposition and we do our best to answer all questions and proposals within shortest time.