FS GLOBAL REAL WEATHER

P3Dv6 Edition

Manual

Version 1.7 Build #602

Visit our Website!

http://www.pilots.shop

FS Global Real Weather

Table Of Contents

Table Of Contents 2
Foreword 2
First Start 3
Purchasing a License 3
Registration 4
Settings 4
Using the Tool 5
- Weather Modes 5
- Review Weather Situation 5
- Transferring Weather to your Simulator 6

Flight Planning 6
- Overview 6
- Create Weather Report 7
- Calculate Flight Plan 7
- Editing Aircraft Profiles 7

Network Support 8
- Introduction 8
- Server Configuration 8
- Client Configuration 9

Autostart 9
- Introduction 9
- Parameters 9
- How to create a Shortcut with Autostart Parameters 10

What else you should know 10
- Cloud Draw Distance 11

Uninstall 11
Copyright 11
Contact & Trouble Shooting 11

Foreword

„Can you make a small tool to send METAR reports to Prepar3D?" - with this question everything began in summer 2012. The „small tool to send METARs" grew into the most realistic weather simulation for FSX / P3D / X-Plane. METAR reports are only a part of the weather data we use and many hours of studying meteorological material, talking to pilots and weather experts as well as endless night shifts came on top. The result is impressive!

We want to thank Pete Dowson for his support and his wonderful FSUIPC; this project wouldn't have worked without him!

We would also like to thank the following supporters for their contributions to this project:

Adrian Arab
Mike Cameron
Michael Haas
Daniel Hecht
Joachim Heimfeld
Jan Höferman
Paul Laube
Domenic Nicosia
Peter Pieper
Brendan Ratchford
Stefan Sondermann
Guido Treu
Ulrich Wagrandl
Matthias Weidemann
Björn Wigerup

Special thanks go to our families, who were probably shocked to hear us talking about the weather for half a year!

First Start

If you have selected to create a desktop shortcut during the installation you can start FS Global Real Weather by clicking this shortcut. Alternatively you can also start the application by running FS Global Real Weather.exe from your installation folder.

Note: You will automatically be informed if there is a new version of FS Global Real Weather available. If so, we recommend to update your installation to the latest version.

Purchasing a License

You can purchase a license directly from within FS Global Real Weather. The available payment methods are PayPal, credit card and (within EU) bank transfer.

To start the purchase, choose **Help → Purchase**. If you already have a pilots.shop account you can provide your credentials. This will automatically link your order to your user profile. You can also choose to proceed without logging in.

In the second step, please enter and / or check your personal data.

The third step allows you to enter a coupon code and to choose a payment method. Please fill in the required fields.

Note: An immediate transmission of your serial key is only possible with PayPal. If you choose to pay with credit card or bank transfer, your serial key will be sent to you after the successful booking. In all cases the serial number will be sent to the e-mail address you provided during the purchase.

Click **Complete Purchase** to complete the purchase. Your data will be encrypted and then sent to our webserver.

If you chose PayPal as your payment method you will automatically be redirected to the check-out page in your default web browser; after conducting your payment you will immediately be sent your serial number by e-mail.

Note: Sometimes e-mails are wrongly sent to the SPAM folder; please also check this folder for the e-mail with your serial number.

Registration

Click **Help → Register**. Choose the edition of FS Global Real Weather you purchased and enter your serial number. Click **Register** to start registration.

Note: The registration process requires a working internet connection. However, no personal data will be transferred to our servers.

Settings

Before you first use FS Global Real Weather with your simulator, we recommend to check the various settings. These can be accessed through menu item **Tools → Settings**. There is a description of every setting in the user interface of the settings dialogs.

Note: Some of the features of FS Global Real Weather require at least the free version of FSUIPC to be installed. The latest version of FSUIPC can be obtained at http://www.schiratti.com/dowson.html.

Important: If you have the registered version of FSUIPC in use, you have to switch off all weather

settings under the **Winds** and **Clouds** tab pages. You can open the FSUIPC settings dialog by clicking **Add-Ons → FSUIPC** in your simulator.

Using the Tool

Important: Please ensure that you have no other weather engine running when using FS Global Real Weather.

Weather Modes

FS Global Real Weather provides three different modes to load weather into your simulator:

The **File Mode** (Load Weather File and Download Weather File) allows you to download a weather file from our weather servers to save it to a location of your choice. You can then load this weather file into your simulator.
In **Static Mode** (Static Weather Download) FS Global Real Weather downloads the weather once and loads it into your simulator. Weather updates are not provided.

In **Dynamic Mode** (Dynamic Weather Download) FS Global Real Weather downloads the weather and loads it into your simulator. It then periodically checks if new weather is avaiable on our weather servers and automatically downloads it.

After choosing „Download Weather File", static or dynamic download, you can choose the point in time you want the weather conditions for. This can either be **Most Current Weather,** downloading the latest weather data available on our servers, or a historic date and time.

Note: In dynamic download mode, not only the initial download of the historic weather will be accurate; FS Global Real Weather will also dynamically apply the real historic weather changes.

Important: Historic Weather is only available for a limited time; we do also reserve the right to remove historic weather files (i.e. if a bug in the weather creation engine was found).

Review Weather Situation

After you have loaded or downloaded weather you will – in all three modes – be able to review weather situations. Weather stations can be filtered by entering a part of their code / name, by choosing a weather phenomenon or by using a combination of these. The result list will be updated and will only contain weather stations fulfilling both filter criteria at the same time.

Example: If you enter „KJFK" in the text box and don't choose a filter in the drop-down-menu, you will get a list of all weather stations containing „KJFK" in their code or name. If you leave the text box empty and choose a weather phenomenon in the drop-down-menu you will get a list of all weather stations with this phenomenon. Entering „KJ" in the text box and choosing a weather phenomenon from the drop-down-menu will give you a list of all stations containing „KJ" in their code / name that have the selected weather phenomenon.

By clicking Flight Planner you can start the (optional) flight planning feature (see section Flight Planning).

Transferring Weather to your Simulator

Before you can start weather transfer, please ensure that your simulator is running and your aircraft is at the starting location (gate, parking position or runway) for your flight.

Choose the version of your simulator from the drop-down-menu and click Start Weather Transfer. Please wait, until the loading message disappears. You will now see the weather conditions at the nearest station from your current location in your simulator.

You successfully started the operation mode and can now begin your flight. FS Global Real Weather will automatically depict the correct weather for your aircraft's position as your flight progresses. The tool will display the nearest weather station and its conditions. However, you can also choose Review Weather Situation, enter part of a stations code / name and check its weather conditions. You can skip review mode by clicking Nearest Weather Station. Operation mode will not be stopped by this feature.

You can also use the flight planning features of FS Global Real Weather by clicking Flight Planner (see section Flight Planning).

FLIGHT PLANNING

FS Global RealWeather allows you to load a flight plan generated from another program zu create weather reports and to calculate a flight plan with weather data.

The flight planner can be started in three ways:

> In the main menu, select Tools → Flight Planner and choose, if you want to feed the flight planner with weather loaded from a file, or downloaded from the internet.
>
> When reviewing a weather situation, click Flight Planner to open the flight planner. In this case the reviewd weather will be used for flight plan calculations and weather reports.
>
> When you are in operation mode, you can also click Flight Planner to start flight planning. This will feed the flight planning algorithm with the weather that's transferred to your simulator.

From wherever you started the flight planning features: click << Return to get back to where you started from.

Overview

To start a flight plan calculation or weather report creation, you need a flight plan file in one of the compatible formats. The following file plan formats are currently supported:

PLN (FSX)
PLN (FS9)
PLN (FS Commander)

Create Weather Report

Click **Open File** to locate a flight plan file. After the flight plan was loaded, you will find a quick overview about the route, containing departure and arrival airport as well as the distance in nautical miles.

The left menu now contains a new item **Weather Report**. Click on it, to get a weather report that contains the nearest METAR as well as all available wind and temperature layers for each waypoint of the route. You can print this report by selecting a printer from the drop down and clicking **Print**.

Calculate Flight Plan

If you want to calculate a flight plan, an aircraft profile and the cruise altitude is required. Click **Flight Plan & Profile** in the left menu to specify these values. Click **Calculate Flight Plan** to start the calculation. This may take a few seconds.

After calculating the flight plan, you will see a new item in the left menu; **Waypoints**. Click on it to see a list of all waypoints in a table with the following columns:

Name	The name of the waypoint.
Altitude	The fly-over altitude of the waypoint.
DTG	The distance to this waypoint (from the previous one)
Time	The time to reach this waypoint (from the previous one)
CRS	The course to this waypoint (from the previous one)
Wind	The wind direction and speed at this waypoint.
Temp.	The temperature at this waypoint.
Turb.	The expected turbulence strength at this waypoint: N none L light M medium S strong

The flight plan can be printed by selecting a printer from the list and clicking **Print**.

Note: The last row of the flight plan table contains summarized values for distance and time of flight. Additionally you will see the calculated headwind component that can be used in fuel calculation tools; it's the weighted head wind component for the whole flight. Negative values stand for tail wind.

Editing Aircraft Profiles

You can edit existing aircraft profiles or even create new ones. Profiles are stored as XML files in

the *data\acprofiles* sub-folder of the FS Global Real Weather main directory. The files have the following format:

```
<AircraftProfile>
      <ClimbProfile>
            <Entry ToAltitude="5000" Tas="190" VerticalSpeed="2500" />
            <Entry ToAltitude="10000" Tas="250" VerticalSpeed="2200" />
            <Entry ToAltitude="15000" Tas="350" VerticalSpeed="2000" />
            <Entry ToAltitude="20000" Tas="400" VerticalSpeed="1800" />
            <Entry ToAltitude="25000" Tas="460" VerticalSpeed="1500" />
            <Entry ToAltitude="30000" Tas="460" VerticalSpeed="1300" />
            <Entry ToAltitude="99999" Tas="460" VerticalSpeed="1100" />
      </ClimbProfile>
      <CruiseProfile>
            <Entry ToAltitude="10000" Tas="250" />
            <Entry ToAltitude="15000" Tas="350" />
            <Entry ToAltitude="20000" Tas="400" />
            <Entry ToAltitude="25000" Tas="460" />
            <Entry ToAltitude="30000" Tas="460" />
            <Entry ToAltitude="99999" Tas="460" />
      </CruiseProfile>
      <DescentProfile>
            <Entry ToAltitude="5000" Tas="180" VerticalSpeed="-1000" />
            <Entry ToAltitude="10000" Tas="240" VerticalSpeed="-1500" />
            <Entry ToAltitude="15000" Tas="310" VerticalSpeed="-1800" />
            <Entry ToAltitude="20000" Tas="400" VerticalSpeed="-2000" />
            <Entry ToAltitude="25000" Tas="460" VerticalSpeed="-2200" />
            <Entry ToAltitude="30000" Tas="460" VerticalSpeed="-2500" />
            <Entry ToAltitude="99999" Tas="460" VerticalSpeed="-2500" />
      </DescentProfile>
</AircraftProfile>
```

Each section (*ClimbProfile*, *CruiseProfile*, *DescentProfile*) may contain as many entries as required.

Network Support

Introduction

FS Global Real Weather can be used in a network environment; in this case, FS Global Real Weather has to be installed on the client computer while the simulator is running on another PC (the server). You can even send weather to more than one server computer by using secondary network bridges (see below).

Important*:* A special network configuration with FS Global Real Weather Network Bridge is not required for X-Plane; in this case, set the installation path and UDP port and host in the X-Plane settings of FS Global Real Weather and you will be able to send weather over the network.

Server Configuration

The server is the computer running your simulator. To enable network support you have to install FS Global Real Weather Network Bridge on the server. It can be downloaded for free from the FS Global Real Weather product page. Details about the (very simple) installation and configuration can be found in *readme.txt* which is contained in the download. FS Global Real

Weather Network Bridge has to be installed on every computer you want to run your simulator and receive weather on. In typical, simple network environments this will only be one computer.

Client Configuration

The client is the computer that will run FS Global Real Weather (i.e. the computer that's not running the simulator).

In the options of FS Global Real Weather (under Tools → Settings → Prepar3D) enable the connection to FS Global Real Weather Network Bridge in the network category. Enter the host name or IP address of the server (the computer that's running your simulator) and the port you have configured FS Global Real Weather Network Bridge to run on.

In addition to the primary FS Global Real Weather Network Bridge, you can add up to 6 additional ones.

Note: In the settings dialog of FS Global Real Weather, be sure to enter the first port you have specified in each FS Global Real Weather Network Bridge's *port.txt* file.

AUTOSTART

Introduction

This feature allows you to specify some command line arguments to let FS Global Real Weather automatically start a weather mode, download the current weather and transfer it to the chosen simulator. The simulator can also be started after FS Global Real Weather, however, FS Global Real Weather will only try to connect to the simulator until the given time out expired.

Note: The autostart feature is not available in evaluation mode.

Parameters

All of the following parameters are required to use the autostart feature:

`FS Global Real Weather.exe` *`weathermode simulator timeout minimize autoquit`*

weathermode	dynamic	dynamic download mode
	static	static download mode
simulator	p3d60	Prepar3D Version 6.0
	p3d61	Prepar3D Version 6.1
	none	Starts no weather transfer
timeout	A time-out in minutes. If FS Global Real Weather can't connect to the simulator within this time-out, it will automatically quit.	
minimize	y	Minimize
	n	Don't minimize
	With this parameter set to 'y', FS Global Real Weather will automatically	

	minimize after start-up.	
autoquit	y	FS Global Real Weather will automatically quit after stopping the operation mode.
	n	After stopping operation mode, FS Global Real Weather will return to the main menu.

Example:

```
FS Global Real Weather.exe dynamic p3d60 5 y n
```

By using these parameters, FS Global Real Weather will automatically start dynamic download mode, download the most current weather from the internet and transfer it to P3Dv6. If the connection to P3Dv6 can't be opened within 5 minutes, FS Global Real Weather will automatically quit. The second to last parameter defines that FS Global Real Weather will be minimized after start-up. The last parameter defines, that FS Global Real Weather should not quit itself after stopping operation mode.

How to create a Shortcut with Autostart Parameters

The following steps will guide you through the process of creating a new short cut to FS Global Real Weather on your desktop, that will automatically start FS Global Real Weather in autostart mode.

On your desktop, click with your right mouse button and choose New → Shortcut.

In the following dialog, click Browse... and locate the file FS Global Real Weather.exe which you can find in the folder you specified during installation. Click Next.

Now enter a name for your new shortcut (i.e. FS Global Real Weather (Autostart)). Click Finish to create the shortcut. You should now find it on the desktop.

Click the new shortcut with the right mouse button and choose Properties. In the following dialog you will find a property called Target which will contain the full path to the executable file. The desired autostart parameters now have you be added at the end of this field (it's important to include the double quotes – don't skip them!):

Before:
```
"C:\Program Files\FSGRW\FS Global Real Weather.exe"
```

After:
```
"C:\Program Files\FSGRW\FS Global Real Weather.exe" dynamic p3d50 5 y n
```

Note: The path given in the examples above might be different on your system, because it depends on the folder you specified during installation of FS Global Real Weather.

After you have entered the new value in Target, close the window by clicking OK. Double-clicking the shortcut will now open FS Global Real Weather in autostart mode.

WHAT ELSE YOU SHOULD KNOW

Cloud Draw Distance

You can set the drawing distance for clouds in the settings dialog of your simulator. By editing the configuration file of your simulator, you can set a higher value to see more distant clouds. Find your simulator's configuration file in one of the paths below and open it in a text editor:

Lockheed Martin Prepar3D: %AppData%\Lockheed Martin\Prepar3d\Prepar3d.cfg

Look for the entry CLOUD_DRAW_DISTANCE and change its value; a setting of 8 equals the maximum cloud draw distance that can be set in your simulator's settings dialog. Our internal tests have proved a value of 12 to be the best option.

Important: Please ensure that your simulator is not running when editing this file. Also note that this value needs to be set again after you have accepted your simulator's setting dialog by clicking the OK button.

Uninstall

If you want to uninstall FS Global Real Weather, you can do this by just deleting the main folder of the applicaton and the optional desktop shortcut. There is nothing else to do since FS Global Real Weather doesn't change any system settings or system files.

Copyright

Copyright owners of this product are PILOT'S GmbH (Vienna, Austria) and Bernd Podhradsky (Vienna, Austria).

Contact & Trouble Shooting

If you experience some troubles, please contact support at fsgrw@fly2pilots.com and be sure to provide a detailed explanation of the problems that occured. Please also ensure that you have the latest version of FS Global Real Weather in use.