



FSiPanel 2020

**MSFS2020** 

**User manual** 

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1 Introduction

FSiPanel has been designed to help flight simulator enthusiasts to train IFR approaches on their

favorite airplane the same way as airline pilots do.

Being an airline pilot for more than 20 years and a real flight simulator enthusiast, I always found

very frustrating not to be able to train efficiently on my flight simulator complex aircraft.

Every time you want to practice an approach on a different runway, you need a lot of time to set

up all the parameters before you can actually fly your approach.

FSiPanel will save you this time, the software will help you set up your approach within a few

seconds at any airport in Prepar3D database.

I strongly advise you to carefully read this user manual before using the software. This will

prevent wrong configuration so you can optimize your training and maximize your user

experience

To download latest installer in the future, please login to the customer area

https://www.fsipanel.com/userarea.php

or login to the FSiPanel shop to retrieve your license and latest installer.

My account - FSiPanel

Please also join our social media and user forum to get the latest information and to request

support. Forum Password is "OuterMarker"

Forum: https://www.fsipanel.com/forum

Thank you and fly safe!

Jean-Pierre Garraio

# 1.1 Why is FSiPanel 2020 different than previous versions.

FSiPanel 2020 will no longer reload flight using saved situation but will instead configure your aircraft using SimConnect and addon available Software development kit.

FSiPanel 2020 for MSFS is compatible with all aircraft available in MSFS Premium version.

This software is designed for serious flight simulator enthusiasts wanting to practice approaches and different other scenarios exactly like the pros but without losing precious time.

The software falls under **entertainment** category and cannot be used for commercial training.

A special license and agreement shall be obtained for commercial use, this agreement must also be obtained with the addon developer.

# 1.2 Supported aircraft

### 1.2.1 Airliners

Aircraft	Remarks
Boeing 787	Note 1
Boeing 747	Note 1
Airbus A320 NEO	Note 1, Note 2

### 1.2.2 Jets

Aircraft
Cessna Citation CJ4
Cessna Citation Longitude

1.2.3 Turboprops

Aircraft
Taher TBM930
Beechcraft King Air 350i
Cessna 208B Grand Caravan

1.2.4 Propellers

112.4 1 10ponoro
Aircraft
Pitts Special S2S
Cirrus SR22
Cub Crafter X Cub
Diamond DA40 TDI
Diamond DA40 NG
Diamond DA62
Diamond DV20
Extra 330 LT
Flight Design CTSL
Icon A5
JMB VL3

Pipistrel Virus SW121
Robin Cap10
Robin DR400
Beechcraft Baron G58
Beechcraft Bonanza G36

Note 1: ILS to be tuned manually via FMC NAV/RAD menu.

Note 2: Make sure FCU Speed and heading are in selected mode

## 1.3 Tutorial Videos

Each type of aircraft is different, therefore please find below some tutorials showing you how to fly your preferred airplane with FSiPanel 2020

Type of aircraft	YouTube link
Airliners Boeing 787 / 747	https://youtu.be/HP8a6dBsI8M
Airliner Airbus A320 Neo	https://youtu.be/mOO4E5KNeKI
Jets	https://youtu.be/pkk5Ujmjunl
Turboprops	https://youtu.be/oa-FTEFZ4jU
Propellers with Autopilot	https://youtu.be/nX1pl8STwr8
Propellers without Autopilot	https://youtu.be/pNcHi3O4v2k

# 2 Changelog

Version	Date	Note(s)
1.0.0.10		Initial release

# 3 Installation

## 3.1 System requirements

#### Minimum System requirement

- Microsoft Flight Simulator 2020
- Windows 7 or Windows 10 64 bits operating system
- SimConnect clients XPACK 2 installed
- Microsoft net Framework version 4.8 or later

#### Optional:

- Navigraph or NavData PRO FSiPanel database (If you want to fly STAR)

#### Antivirus:

 It is highly recommended to deactivate your antivirus and to create an exception for FSiPanel 2020 directory before installing the software to avoid any false positive detection. All the files have been tested with VirusTotal.com, feel free to transmit any FSiPanel file to your antivirus provider should it be detected as a Virus

**Note:** During the installation process and during the first run of the software, FSiPanel will check if your system meets the requirements and help you install missing software if so required.

## 3.2 Installing FSiPanel

#### 3.2.1 Installer

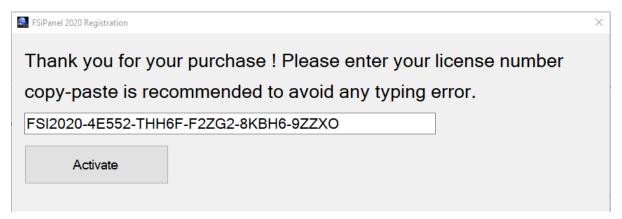
To install FSiPanel, simply run the installer and follow the instructions.

FSiPanel can be installed in your Program files directory or at any other location.

It is recommended to run the installer as administrator.

### 3.2.2 Software registration

On the first run of FSiPanel, you will be asked to register the software.



Please make sure to copy-paste the license received by email to avoid any typing error. Click on Activate to check your license validity.

#### 3.2.2.1 License status

- Unlimited: Your license will not expire.

Subscription Your license is valid until the date indicated.

Deactivated Your license has been deactivated due to fraud usage or refund.

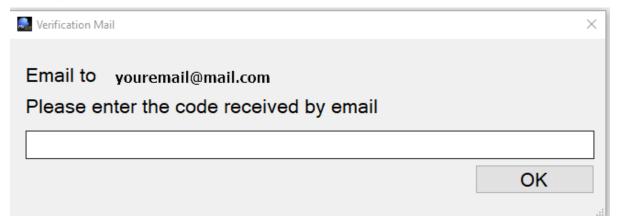
Registration issue You have installed FSiPanel on more than two computers

Your license allows you to install FSiPanel on two personal computers

FSiPanel 2017 for P3D Copyright 2021 Page 11 of 36

### 3.2.2.2 Email verification

FSiPanel will send you a validation code to your registered email, should you have changed your email, please contact <a href="mailto:support@fsipanel.com">support@fsipanel.com</a> to update our license database or visit the shop to update your account information.

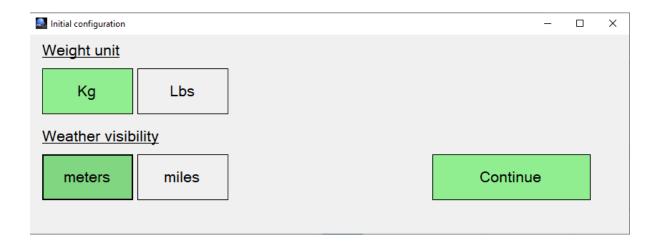


When license and email are verified, FSiPanel will restart.

# 4 Configure the software

### 4.1 First run

On the first run, you will be asked to select your desired units, FSiPanel will also verify that you meet all the requirements. If Simconnect is not installed, FSiPanel will install it for you, just follow the onscreen instructions.



When clicking continue, FSiPanel will check your system requirements and install Simconnect Service pack 2 if not already detected on your system.

Once setup is complete, FSiPanel will restart.

### 4.2 Options Tab

To access the setup page, click on the Setup button at the bottom right of the main screen.

You can check and change the default values used for the positioning of your aircraft The following options are configured on this tab:

### 4.2.1 Aircraft positioning options

#### 4.2.1.1 Final positions

#### **Short Final Quick button**

Default value 4 NM.

This value will be used by the quick position button (short final) on the main screen.

The default value for Short Final distance in NM can be adjusted from 4NM to 7NM

#### **Long Final Button**

Default value 8 NM.

This value will be used by the quick position button (long final) on the main screen.

The default value for Long Final distance in NM can be adjusted from 8NM to 15NM

### 4.2.1.2 Downwind position

#### **Lateral distance to the RWY**

Default value 3 NM

This will be your lateral distance to the runway in NM when positioned on downwind.

The default value for lateral distance to the runway can be adjusted from 2NM to 8NM.

#### Altitude AGL in feet

Default value 2000 ft

The aircraft will be positioned xxxx ft AGL (Above ground level)

**Note:** Example: the airport elevation is 499ft and your setting is 2000ft, the aircraft will be positioned on downwind at 2500ft which is 2000ft above airport elevation.

#### 4.2.1.3 Base position

#### Base leg distance in NM

Default value 3 NM

The default value for base leg distance in NM can be adjusted from 3NM to 8NM. Your base leg distance will be X NM until your intercept final approach course.

### Final leg distance in NM

Default value 8 NM

The default value for Final leg distance in NM can be adjusted from 4NM to 15NM This will be your final distance in NM when intercepting final approach course.

#### 4.2.1.4 Vectors position

#### **Vector leg distance in NM**

Default value 4 NM

The default value for Vector leg distance in NM can be adjusted from 3NM to 15NM Your vector leg distance will be X NM until your intercept final approach course.

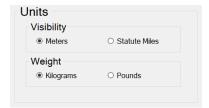
#### Final leg distance in NM

Default value 8 NM

The default value for Final leg distance in NM can be adjusted from 4NM to 15NM This will be your final distance in NM when intercepting final approach course.

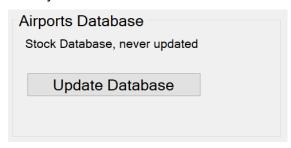
### 4.2.2 Units settings

Units can be selected for visibility and weight.



### 4.2.3 Airports database

FSiPanel runs with the default Microsoft stock airports database. If you have custom sceneries installed on your computer, it is recommended to update your airport database so that airports runways match between the simulator and FSiPanel.



**Note:** This process will take a few minutes and relies on the excellent MakeRwys software from Pete Dowson.

### 4.2.4 Troubleshooting Tab

This tab is used in case of problems to help finding the possible issue.

#### .NET Framework installed on your computer

v2.0.50727 2.0.50727.4927 SP2 v3.0 3.0.30729.4926 SP2 v3.5 3.5.30729.4926 SP1 v4 Client 4.8.04084 Full 4.8.04084 v4.0 Client 4.0.0.0 .NET Framework Version: 4.8 or later

#### Simconnect Versions installed

SimConnect Client v10.0.62615.0 SimConnect Client v10.0.61259.0

#### **FSUIPC**

FSUIPC not found or Simulator not running

### 4.2.5 License information

Registration Information:

License number: FSI2020-4EG:

Registered to: Garraio Jean-Pierre

Registered Email: myemail@mail.com

Subscription valid until: Unlimited

Unregister this PC Only if requested by support, FSiPanel will need to be registered again

You can check here your license, registered email and subscription status if applicable Unregister this PC will allow you to enter a new license code should you update from a 1 month license to a full license for example.

# 5 Getting started with FSiPanel (Quick tutorial)

The procedure to position your aircraft is slightly different from Airliners, Jets and Propellers. In order for you to have an easy start with FSiPanel 2020, I have created short tutorial videos showing you the procedure to fly a quick short final approach at your preferred airport.

Please make sure to check these videos (links at the end of the chapter) to have an easy start.

## 5.1 Start the simulator and select your aircraft

First step is to start MSFS with your preferred aircraft at the airport where you plan to practice landings.

Once the aircraft is loaded in the simulator, make sure of the following:

- Engines are running
- IRS are aligned
- Load your aircraft as desired (Pax, fuel, cargo)
- Switch Flight director ON

### 5.2 Start FSiPanel

FSiPanel shall immediately detect your aircraft as compatible, you can see that at the bottom left of the main screen.

Detected compatible aircraft: N/A

Aircraft not detected.

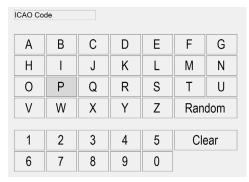
Detected compatible aircraft: TBM 930

Aircraft detected as TBM 930

## 5.3 Select your airport

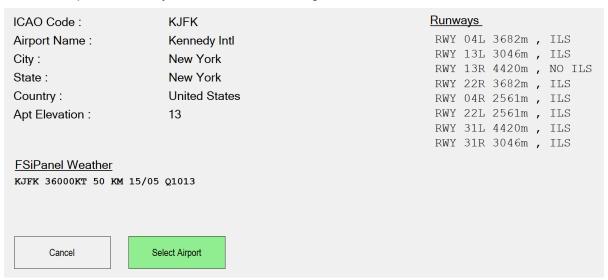
FSiPanel automatically select the actual airport and closest runway. You can keep this setting or change it as desired.

Click on the airport select button (first top left button of your screen showing the ICAO code of your actual airport)



Enter your desired airport ICAO code ex: KJFK for New York JFK airport.

Once an airport is found, you can see the following information



- Actual weather is displayed
- Basic airport information
- All available runways.

Click on Select Airport

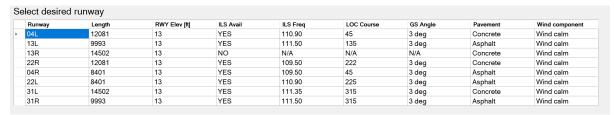
### 5.4 Select your runway

Now we need to select our runway.

Click on the select runway button



A list of runways will be displayed as below:



You can sort the runways by length, pavement, ILS avail.

Select the runway for your training by clicking on the corresponding line.

I will select 04L as an ILS is available and the runway is long enough for my 737.

### 5.5 Select your Quick Position Fix

We will now use the quick position fixes buttons to select a quick approach.

I will select a long final (distance for this default value can be changed in setup) for runway 04L by pressing Long Final button



## 5.6 Launch the approach

All set for a quick training, click on MOVE AC button at the top right of your screen.

#### What will happen next:

- FSiPanel will automatically bring MSFS to view
- FSiPanel will set your flaps.
- FSiPanel will position your aircraft at the right position.
- FSiPanel will set your autopilot modes (on aircraft with autopilot)
- FSiPanel will set your nav setting for the approach

Once the aircraft is stable, you will receive a message on MSFS 2020 screen to take control, hold your brakes for three seconds to take control and fly your approach!

**Note:** Please do not touch any control during FSiPanel work. You can monitor the progress by looking at messages sent by FSiPanel directly in your simulator. Same place as ATC message.

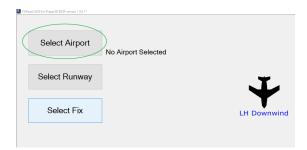
### 5.7 Tutorial Videos

Type of aircraft	YouTube link
Airliners Boeing 787 / 747	https://youtu.be/HP8a6dBsI8M
Airliner Airbus A320 Neo	https://youtu.be/mOO4E5KNeKI
Jets	https://youtu.be/pkk5Ujmjunl
Turboprops	https://youtu.be/oa-FTEFZ4jU
Propellers with Autopilot	https://youtu.be/nX1pl8STwr8
Propellers without Autopilot	https://youtu.be/pNcHi3O4v2k

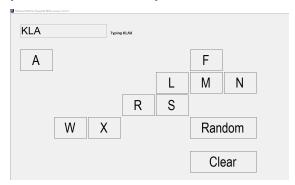
# 6 Select your airport and runway

# 6.1 User entry

You can select your airport by typing its ICAO 4 letter code ex : KLAX or by letting FSiPanel pick a random airport based on your criteria.



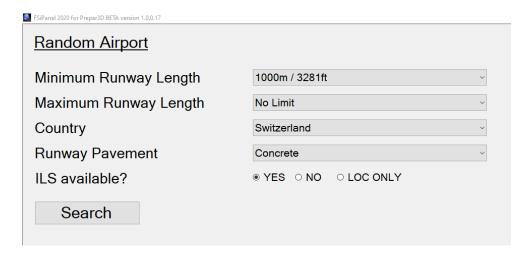
Click on Select Airport or actual ICAO code if an airport has already been selected either by yourself or automatically as the closest available airport.



Type your airport code, only available letters will be displayed.

In the example above, after having typed KLA, only the displayed letters are available to complete the airport ICAO.

# **6.2 Random Airport**



#### Set your criteria:

- Minimum runway length
- Maximum runway length
- Country (Can be random as well)
- Runway Pavement (Can be random as well)
- ILS available
  - o YES, an ILS approach will be available on this runway
  - o NO, only non-precision approaches or no approaches
  - o LOC ONLY, only localizer approach (no glideslope)

Click on Search to let FSiPanel select an airport and a runway for you.

If a runway meeting your criteria is found, the main panel will come into view with the selected airport and runway.

Note: If no airport is found, please review and change your criteria.

# 7 Selecting custom positions

FSiPanel lets you select basic positions known as:

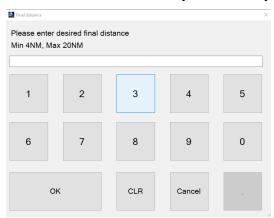
- Final
- Base
- Downwind
- Vector (30 degrees intercept to your final approach)
- STAR
- Airwork

You can use the quick fix buttons on the main screen or the custom options by pressing on select fix button (this button will be visible only if an airport and a runway have been selected)

## 7.1 Final Approach

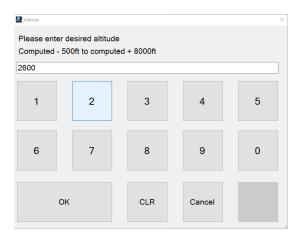
Selecting 4NM or 8NM will be equivalent to the quick fix buttons on the main panel (short final or long final)

X NM Final button will allow you to select your desired distance in NM.



Enter your desired distance.

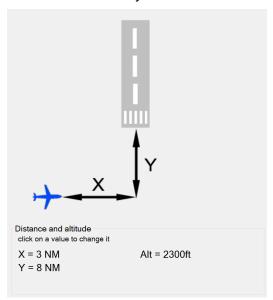
FSiPanel will now compute the correct altitude based on the runway ILS glideslope angle if available or if not a standard 3 degrees glidepath.



Click OK to fly with the default altitude which will set you up at the right altitude for your approach or enter a new value if you want to be positioned above or below ideal glidepath.

# 7.2 Base options

You can select here your desired base settings

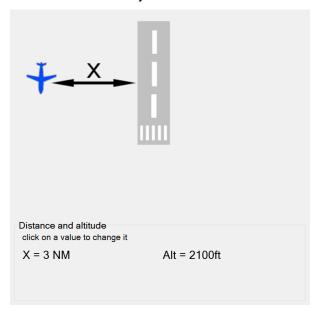


FSiPanel will use default parameters taken from your setup page as initial values. To change any of this value, click on the corresponding text: Example, click on X = 3 NM to enter your desired distance.

If you change your final distance (Y = 8NM in the above illustration) FSiPanel will compute your new ideal altitude automatically, you can off course if desired change it to your need.

# 7.3 Downwind options

You can select here your desired downwind settings



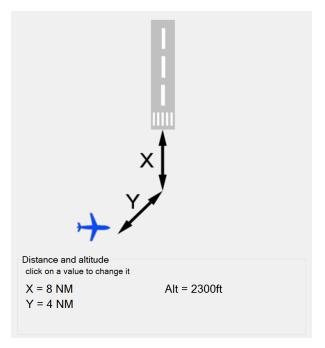
FSiPanel will use default parameters taken from your setup page as initial values. To change any of this value, click on the corresponding text: Example, click on X = 3 NM to enter your desired distance.

#### Altitude is computed as follow:

- Airport elevation + desired default downwind altitude.
- In the illustration above, airport elevation is 50ft and default downwind altitude is 2000ft AGL, so FSiPanel will use 50 + 2000 = 2050 and round it up to the next compatible autopilot value (2100ft in this example)
- This altitude can be changed by clicking on "Alt = 2100ft"

## 7.4 Vectors options

You can select here your vectors to final options.



FSiPanel will use default parameters taken from your setup page as initial values. To change any of this value, click on the corresponding text: Example, click on Y = 4 NM to enter your desired distance.

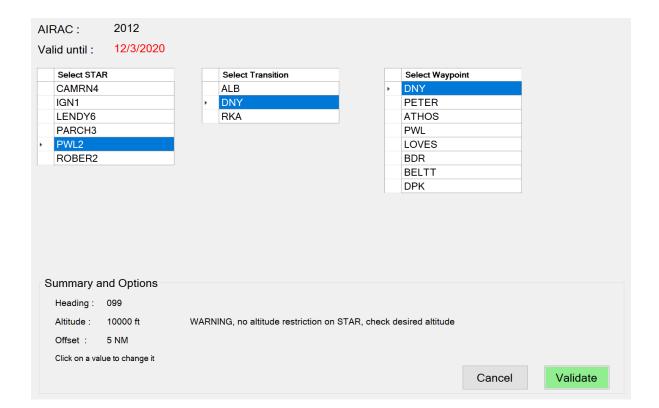
If you change your final distance (X = 8NM in the above illustration) FSiPanel will compute your new ideal altitude automatically, you can off course if desired change it to your need.

## 7.5 STAR options

STAR stands for Standard Terminal Arrival Route, used by airport to route aircraft on a desired precise route in the terminal area.

Some of this STAR include a transition to final approach, allowing you to fly from the first point of the STAR until your initial approach fix IAF.

FSiPanel comes with an outdated STAR database, if you want to use the latest star routes, please update your database with Navigraph or NavData, both are compatible with FSiPanel.



### 7.5.1 How to select your STAR:

- Select your STAR on the first column
- If STAR has a transition, second column will show, select your transition.
- Finally, select your desired waypoint, this is where FSiPanel will position you.

## 7.5.2 STAR custom options

As you can see on the illustration above, FSiPanel comes with the following options:

- Heading (This will be the heading from previous fix to the selected one)
- Altitude (Restricted altitude if any or 10000ft as default)
- Offset (5NM as default, you will be 5NM short of the waypoint)

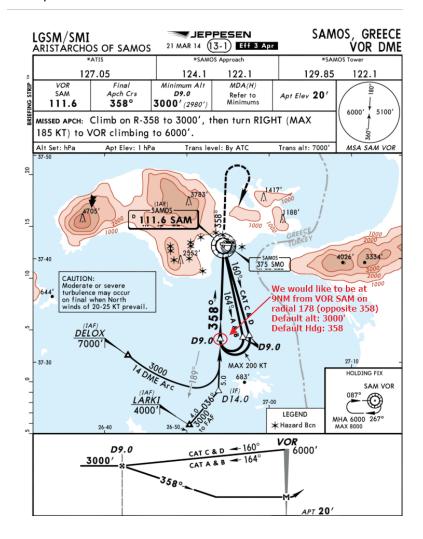
Click on any of the value to change it at your needs.

# 7.6 Pilot's Waypoint

Pilot can create a waypoint by one of the following method:

- GPS Coordinates
- Selecting any NAVAID (VOR, NDB) or any airway, terminal fix
- Radial / distance from one of the above : LAX, radial 090, 8NM

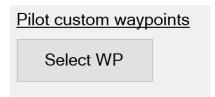
Example: LGSM VOR 09



For a tutorial of the above waypoint creation, please check the YouTube video below: https://youtu.be/FVwYvc0ReGo

### 7.6.1 Selecting a Pilot's Waypoint

To select a Pilot's waypoint, make sure to select first the airport and the runway, click on Select FIX and then Select WP.



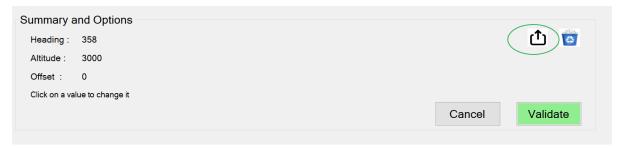
Click on your desired waypoint to display options:



### 7.6.2 Exporting Pilot's Waypoint

Pilot's waypoint can be exported as .FSP file by clicking on the export button, you can share this waypoint with your friends or the community.

After having selected a waypoint, the export button is displayed on the screen



### 7.6.3 Importing Pilot's Waypoint

To import a pilot's waypoint file (.FSP), drag and drop it on the main FSiPanel window (Where the runway and the quick position fixes are shown)

# 7.7 Airwork options



Aircraft will be positioned on final at the desired altitude in a clean configuration, allowing you to practise high altitude air work if needed.

**Note:** Please make sure your aircraft weight is within limits for the desired altitude or the positioning will fail. An aircraft at maximum take off weight cannot climb directly to its service ceiling altitude..

# 8 Setting your weather

## 8.1 MSFS 2020

Please set your weather directly in MSFS 2020 before flying your approach.

If in the future third party companies will release weather addons for the weather, we will be working on integrating them in the program just like in P3D / FSX versions.

# 9 Simulator Controls

You can control some of the simulator features from FSiPanel Sim Controls menu. Any active mode will be displayed in green



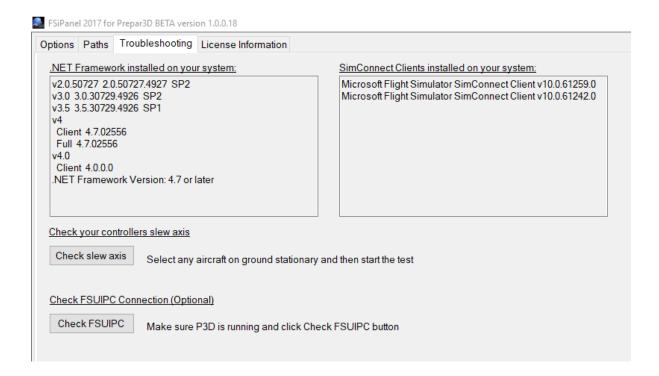
In the above illustration, simulator is on pause and simulation rate is set to normal speed (1x)

On this panel, you can immediately change aircraft Altitude, heading and speed by using the provided function, please note that this will affect your aircraft, use with caution only if required. For example you would like to quickly climb to 20'000ft, make sure speed is good and then select 20000ft with Pause mode ON. In the simulator, set your autopilot modes as required and release pause to take controls.

# 10 Troubleshooting

## 10.1 System requirements

If you get some errors while running FSiPanel, please first go to Setup Troubleshooting page and check if all minimum requirements are met.



### 10.1.1 .net Framework

FSiPanel needs .Net Framework version 4.5.2 or later to be installed

### 10.1.2 SimConnect clients

FSiPanel needs SimConnect Client XPACK 2 (v10.0.61259.0)

# 11 End-user license agreement EULA

This is a legal agreement between you (either an individual or a single entity) and Jean-Pierre Garraio referred as the ("Licensor") for the software product accompanying this Agreement.

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