

FS Instant Approach 2022 for X-Plane for Windows

Manual

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To use FS Instant Approach 2022 with X-Plane you must install Sandy Barbour's excellent 'Position Aircraft' plugin. This is free.

If you already have version 1.20 or above installed on your PC, you do not need to install it again. You can check this by looking on the X-Plane Menu bar for Plugins... Position Aircraft... Control Panel, where the version number is shown. If it does appear there, it is installed and you do not need to install it. If it does not appear there, you should install it as your next step. Exit X-Plane if it is running and download the Position Aircraft Plugin from http://xpluginsdk.org/position_aircraft.htm and copy the files and folders within the downloaded zip file into the 'Plugins' folder beneath your X-Plane Resources folder and then start X-Plane again.

We have placed a button in the program to do this for you automatically if the plugin is not present. See details below.

Note - This program installs XPUIPC version 2 (for 32 bit & 64 bit support in X-Plane).

FSInventions software is not to be considered, in any way, implied, certified, suitable or valid for the training of any person for the operation of any aircraft or vehicle of any kind.

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Introduction

Welcome to FS Instant Approach 2022!

FS Instant Approach 2022 adds a whole new level of fun to your flights with X-Plane.

You can put yourself "On Approach" to any runway in the world in seconds!

Set yourself up 'on final' or ready to intersect final approach for a more challenging flight.

For a tougher assignment, set up to fly the traffic pattern approach to any runway, beginning at the start of the 'downwind' or 'base' leg of the pattern or ready to enter the pattern by intersecting the 'downwind' leg at an angle of 45 degrees abeam the mid-point of the runway.

System Requirements

FS Instant Approach 2022 recommends a PC well equipped to run the version of X-Plane you have selected. If the PC can run X-Plane at a good pace, without problems, FS Instant Approach 2022 will run fine with it. If the PC is *struggling* to run X-Plane, then FS Instant Approach 2022 will be unable to give its best performance.

Because X-PLANE requires a high performance system, we recommend the following minimum specification:

3 GHz multi-core CPU (multiple processors preferred)

4 GB RAM

DirectX 10 capable (DirectX 11 preferred) graphics with 2 GB on-board dedicated VRAM

Installation

For FS Instant Approach 2022 to install and to run correctly, you must be a *Computer Administrator* user and not a *Limited Account* user.

To install, simply run the installation EXE program supplied by FSInventions.

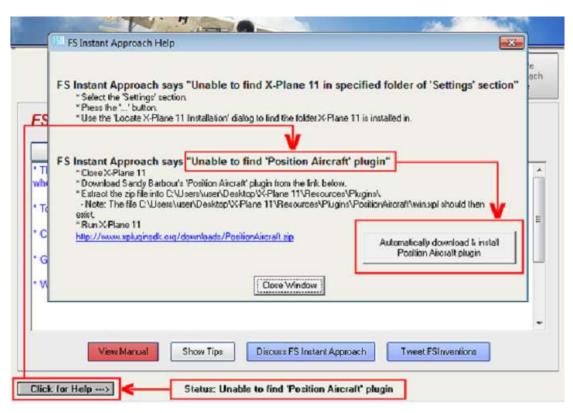
'Position Aircraft' Plugin

To use FS Instant Approach 2022 with X-Plane you must install Sandy Barbour's excellent 'Position Aircraft' plugin. This is free.

If you already have version 1.20 or above installed on your PC, you do not need to install it again. You can check this by looking on the X-Plane Menu bar for Plugins... Position Aircraft... Control Panel, where the version number is shown. If it *does* appear there, it is installed and you do not need to install it.

If it does not appear there, you should install it as your next step.

You will be told 'Position Aircraft' is missing if you launch FS Instant Approach 2022 before 'Position Aircraft' is installed into X-Plane.



Install 'Position Aircraft' as follows:

Exit X-Plane if it is running.

Click on the "Click for Help" button FS Instant Approach and then click the "Automatically download" button as shown above. If for any reason you have problems with this you can download the Position Aircraft Plugin from http://xpluginsdk.org/position_aircraft.htm and then copy the files and folders within the downloaded zip file into the 'Plugins' folder beneath your X-Plane Resources folder.

Finally, start X-Plane again and check as described above to make sure it is there.

X-PLANE

To configure X-Plane to work with FS Instant Approach 2022:

- Close all flight simulation software.
- Run X-Plane. Once X-Plane has loaded, get into an airplane and start the engines get it ready to fly an approach.
- Run FS Instant Approach 2022. If you have not yet done so, follow the instructions to specify where on your PC X-Plane is installed.
- If you have not yet done so, follow the instructions at the Settings Screen of FS Instant Approach 2022 to generate runway data for use by FS Instant Approach 2022.
- "X-Plane" will be detected and FS Instant Approach 2022 can then create approaches for it!

Demo and Registered Versions of FS Instant Approach 2022

The FS Instant Approach 2022 installation program, downloaded from a web site, always installs the *DEMO* version of FS Instant Approach 2022.

It can be unlocked to become a full version when registered with a purchased registration key.

Differences between the demo and registered versions:

Demo:

Pilot can perform Instant Approaches to Chicago (KORD) or Green Bay (KGRB) only **Registered:**

Pilot can perform Instant Approaches at any airport in the world!

Pilot can submit and examine flight maps of his/her approaches.

In order to register FS Instant Approach 2022, you will need to enter the codes which came with your purchase of the product if you downloaded it. Download customers are sent a registration key. See the instructions within this manual below at the *Credits Page* section.

Like FS Instant Approach 2022? You will love FSFlyingSchool for X-Plane!

Did you know that FSInventions, the creators of FS Instant Approach 2022, also publish a unique X-Plane add-on that will have you flying like a Pro in no time?

Our software has won 5 consecutive *PC Pilot Magazine Classic Product Awards* and is used by thousands of real and simulator pilots worldwide.



It contains a team of artificially intelligent **talking instructors** who analyze and record over 70 different aspects of all your flights in any powered airplane, anywhere in the world.

The 2021 version now automatically supports any powered airplane - no need to enter any data!

You can download a **free demo**, watch movies and learn all about this unique product at: www.FSFlyingSchool.com

Quick Start

Please read this manual if you want to get the most out of flying with FS Instant Approach 2022.

If you would prefer to do this later and want to jump right into the cockpit, here's what you should do next:

- Launch X-Plane.
- Create or select a flight in X-Plane.
- Get that plane ready to fly, either in mid-air or on the ground. Get yourself at the controls of the plane with the engines running - ready to fly. Leave X-Plane running.
- Return to Windows Desktop (using Alt TAB or whichever method you prefer) and launch the FS Instant Approach 2022 program.
- To set up an instant approach, click the [Flight Plan] button, enter your airport, click the [Approach
 Airport] button, chose your runway etc and then click the [Save Approach File] button to create the
 approach file.
- Return to X-Plane (using Alt TAB or whichever method you prefer).
- Press Ctrl Shift C to open the 'Position Aircraft' Control Panel within X-Plane.
- Press Ctrl Shift Q to *quick load* the approach file you created into the Position Aircraft plugin.
- Press Ctrl Shift P to position the aircraft ready to fly the approach you just created with FS Instant Approach.
- Enjoy your flight with FS Instant Approach 2022!
- TIP: If you want to fly an approach at a location which is a considerable distance from the aircraft's present location, you may notice that occasionally, when you press Ctrl Shift P to position the aircraft that it is instead positioned on the ground at the nearest runway or in an undesirable attitude. If this occurs, simply press Ctrl Shift P again and the aircraft will be positioned in the air ready to fly the approach.
- That's the Quick Start ... but you really should read this too...
 There are several new features you will want to understand. Read more about these features in detail in this manual.

The FS Instant Approach 2022 Interface

Under normal circumstances, you will first launch X-Plane, get into an airplane, get it ready to fly (engines running etc) and then launch FS Instant Approach 2022. If FS Instant Approach 2022 is correctly configured, it will successfully detect X-Plane. If it does not detect X-Plane, FS Instant Approach 2022 will display the warning "No X-Plane Found" and you will not be able to press FS Instant Approach 2022's [Save Approach File] button to create an approach with X-Plane.

FS Instant Approach 2022's [Save Approach File] button saves a file in the correct folder within X-Plane, containing the starting position of the approach you have selected to fly. You can then load this file into X-Plane and fly the approach.

In addition, FS Instant Approach 2022 has a number of screen pages which control different aspects of configuration and use of FS Instant Approach 2022:

- Information
- Flight Plan
- Settings
- Credits

Tips of the Day

A randomly selected tip is displayed when the user launches FS Instant Approach 2022. The tips can be examined one by one if the user prefers and this feature can be turned on or off as desired. The tips contain handy information about how to get the most from FS Instant Approach 2022.

Information Page

The Information Page has helpful information on how to fly different types of flight with FS Instant Approach 2022 and also a convenient link direct to the FS Instant Approach 2022 web site. There is also a button to launch the FS Instant Approach 2022 Manual (this document you are reading).

Save Approach File Button

The [Save Approach File] button, when pressed, tells FS Instant Approach 2022 to create your approach file for X-Plane. You will then return to X-Plane and load the file to fly the approach.

Flight Plan Page

On Approach Feature

FS Instant Approach 2022 gives you the opportunity to instantly practice approaches and landings at any runway in the world!

You have several types of approach to choose from:

-- On Final You will start your approach lined up with the runway

Intersect Final
 Downwind
 Base
 Enter
 You will begin flying a course that will intersect your final approach
 You will begin at the start of the Downwind leg of the traffic pattern
 You will begin just before the start of the Base leg of the traffic pattern
 You will begin flying a course that will intersect Downwind leg at 45 degrees

FS Instant Approach 2022 offers many different ways to set up these approaches using the following controls:

- ICAO Code

Enter the code of the airport at which you wish to practice a landing, for example, KGRB (Green Bay) or KORD (Chicago). The registered version of the program allows any airport in the world, for example, EGLL (London Heathrow) or KLAX (Los Angeles).

Approach Airport

Press this button to find the runway in the FS Instant Approach 2022 runway data and set it as your approach airport.

- Approach Random Airport

Press this button to select a random runway - anywhere in the world - and set it as your approach airport. Note that the runway information is displayed when the button is pressed. You may wish to press again for a different runway if the runway randomly selected is unsuitable for your aircraft (for example - it is too short for your airliner!).

Start

This box is turned on so that FS Instant Approach 2022 will create a file to put you on approach to your chosen runway when you press FS Instant Approach 2022's [Save Approach File] button.

- Nautical Miles out from runway

This is the length of the 'on final' leg of your approach.

Use these two boxes to enter the distance you want to start from and the runway that you wish to land at

Note that the *length* of the 'on final' leg is *ignored* if you choose to fly an approach starting you on the 'Downwind' or 'Base' leg of the traffic pattern or if you chose to 'Enter' the pattern.

Flying at

Choose the speed at which you would like to start the approach.

Intersect from

Check this box if you wish to start your approach from a path that *intersects* your final approach path at an angle. The *default* is 45 degrees, but you can set this to any angle you wish. You will then be able to select it from *left* or *right* and to choose the *length* of the intersecting path.

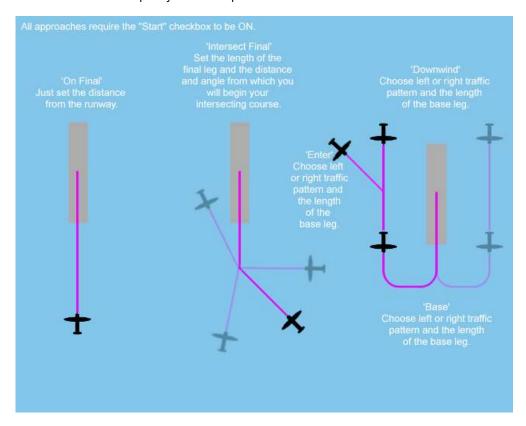
Note that if this option is chosen, your altitude remains that computed by FS Instant Approach 2022 for a *straight in approach* at the distance given in 'Nautical Miles out from runway'.

Left

Choose this option if you wish to start your approach from a path that intersects your final approach path, from the left, at an angle you choose. You will also want to choose the *length* of the intersecting path. When you return to X-Plane to fly, you will notice that the runway is to your left.

- Right
 - Choose this option if you wish to start your approach from a path that intersects your final approach path, from the right, at an angle you choose. You will also want to choose the *length* of the intersecting path. When you return to X-Plane to fly, you will notice that the runway is to your right.
- Nautical miles back
 - If you have chosen to *intersect* your final approach leg, this is where you specify the distance back from that intersection that you will start the flight. Note that this distance is *in addition* to the distance you start your *final* approach leg from the runway.
 - You can either specify the distance in nautical miles or choose the "AUTO" option in which case you will start approximately 1 *minute* back from the intersection point based on your initial speed.
- Downwind
 - Check this box if you wish to begin your approach at the start of the 'Downwind' leg of the traffic pattern at that runway. This means that you will start with your airplane abeam the far end of the runway you have chosen to land at, facing in the opposite direction, at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
- Base
 - Check this box if you wish to begin your approach just a little before the start of the 'Base' leg of the traffic pattern at that runway. You are not placed at the very start of the Base leg as that would require an *immediate* descending turn and this is a less useful point to start the simulation from. In order to give you a little time to get ready for the turn, you will start with your airplane abeam the *start* of the runway you have chosen to land at, facing in the opposite direction, at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
- Enter
 - Check this box if you wish to begin your approach on a course that will intersect the 'Downwind' leg of the traffic pattern at an angle of 45 degrees. You are placed with the same distance to fly as was chosen for the Base leg before you reach the Downwind leg abeam the mid-point of the runway. You will be at at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
- Left
 - Choose this option if you wish to begin your approach at the start of the 'Downwind' or 'Base' leg of the *Left* Traffic pattern at that runway or 'Enter' the pattern by intersecting 'Downwind' at 45 degrees. When you return to X-Plane to fly, you will notice that the runway is to your left.
- Right
 - Choose this option if you wish to begin your approach at the start of the 'Downwind' or 'Base' leg of the *Right* Traffic pattern at that runway or 'Enter' the pattern by intersecting 'Downwind' at 45 degrees. When you return to X-Plane to fly, you will notice that the runway is to your right.
- Nautical miles Base
 - If you have chosen to fly 'Downwind' or 'Base' leg, this is where you specify the lateral distance from the runway at which you will start the flight.
 - If you have chosen 'Enter' (pattern) then this will be the length of the Base leg, which also determines your starting distance from the point at which you enter the Downwind leg at 45 degrees abeam the runway mid-point.
 - You can either specify the distance in nautical miles or choose the "AUTO" option in which case you will start approximately 1 *minute of flying* from the runway based on your initial speed.
- Altitude
 - It is essential to note that this setting *is not required*. If you wish, you can set the altitude (in feet) above MSL or AAL (Above Airfield Level) at which the airplane begins the approach, but this is optional. If this is not chosen, altitude for the approach is computed automatically.

Show Approach Types Available
 Press this button to display a pop-up diagram of the 4 types of approaches available and
 instructions on how to quickly set them up!



- Preview Approach (Internet connection required)
 Press this button to display, on a Google Map of the real world airfield, where your approach will start and (excepting starting on BASE) where it will go onto final or up to base turn.
- ICAO Codes start with
 If you wish to restrict randomly chosen airports so that they begin with a preferred letter or letters, you can enter the letters here. For example, enter "K" if you want codes that start with "K" such as KLAX (Los Angeles Intl) and KJFK (Kennedy Intl), or "EG" for airports such as EGLL (Heathrow) and EGLC (London City).
- Runway Elevation
 Random airports can also be filtered by elevation. Check this box if you want to specify the minimum or maximum elevation in feet of the airports to include in random selection.

 Note if you want no minimum then leave the selection blank do not set it to "0000" as that will exclude runways which are below mean sea level. Likewise, if you want no upper limit, leave that selection blank.
- Runway Length
 Random runways can also be filtered by length. Check this box if you want to specify the minimum or maximum length in feet of the runways to include in random selection.

 Note if you want no minimum then leave the selection blank. Likewise, if you want no upper limit, leave that selection blank. This is a great way to practice short field approaches... or to make sure there is enough room to land that big airliner!
- Runway Types
 You can filter randomly chosen *runways* so that they must have an Instrument Landing System (ILS), or they must *not* have ILS, or you can include all runways without regard to ILS being present.

- Runway Surface

Random runways can also be filtered by the type of surface. This can be left blank or you can select a particular surface type of you wish.

How about landing on dirt today?! Grass tomorrow?

- Scenarios

An approach with FS Instant Approach has *a lot* of options. Wouldn't it be great to be able to set up interesting approaches, often with random aspects, and *save them*? Now you can! Each situation you create at the Flight Plan screen of FS Instant Approach can now be saved as a 'Scenario', and loaded whenever you want to fly the same sort of approaches again. You can now build a whole collection of exciting approach scenarios to use whenever you wish! For reference - all scenario files are *plain text files* and are stored in a folder called *Scenarios* which is within your FS Instant Approach folder.

You can call your scenario files anything you like so long as it is a valid Windows file name. We suggest you use highly descriptive names to describe the way you have configured the approaches, such as:

"Intersecting a downwind pattern at Corona" "Concrete runways in United Kingdom" "Short grass strips" "High altitude ILS" - Google Flight Mapping (Internet connection required)

FS Instant Approach now brings you powerful tools to review your approaches in great detail. Your approach is recorded automatically for you as you near your destination and the route can be examined later. Simply press the [Save and View Map of Flight] button at the flight plan page of FS Instant Approach after you have completed your approach.

You can review earlier flight maps by pressing the [View All Maps] button at the flight plan page of FS Instant Approach.

Key flight data is graphed and included with the maps displayed so you can concentrate on areas you may need to improve to get on track for those perfect approaches.



Use your mouse to hover over the map or graph to see position, altitude, KIAS, AGL, vertical speed and throttle!

This powerful combination of map and graph means you will get the answers you need.

FS Instant Approach has got you covered!

NOTE: In order to function correctly, flight mapping requires that the pilot creates an approach with FS Instant Approach and flies that approach. If this is not done the flight will not be recorded.

[&]quot;What was my airspeed over the threshold?"

[&]quot;Did I maintain an optimal rate of descent?"

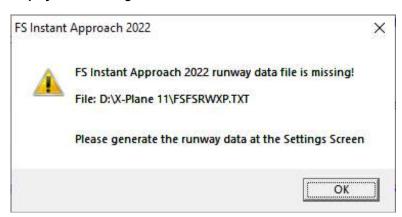
^{...}and much more.

Settings Page

This page displays miscellaneous information about FS Instant Approach 2022's connection to X-Plane and XPUIPC, and provides a means to tell FS Instant Approach 2022 where X-Plane's folders are.

If you have not yet done so, you need to specify where X-Plane is on your PC at this screen.

You do not need to "generate runway data" unless FS Instant Approach 2022 cannot find it and displays this message...



In order to generate the runway data for FS Instant Approach 2022, simply press the appropriate button at the **Settings Page of FS Instant Approach 2022**.

The process will launch an external program in a separate window and will take a few minutes. **Please do not interrupt it.**

You only need to perform this operation once, unless you update your X-Plane runway data, in which case you should run it again.

Credits Page

This is where we acknowledge those behind the FS Instant Approach 2022 concept and the help we have received from the dedicated team of enthusiasts who have made FS Instant Approach 2022 what it is today and will be tomorrow.

This product **always** functions as a DEMO *until it is registered*.

If you like it and would like to own the full version, you will need to purchase the registration codes and **you** can then register the product. **Everyone** starts with the **DEMO**.

The registration section of this page allows users with a registration key for FS Instant Approach 2022 to register the program and enjoy the benefits.

The codes sent by our vendors can be in a variety of formats which are up to the individual vendor.

The key point is that you will have been sent data that contains 4 sets of numbers.

The picture below illustrates typical data (this is an example - you must use the data you were sent).

The data you were sent could, for example, look like this:

Field1to3: 62656347 RegKey: A8B5-2A6C-0030-4CC0-4848 or this (62656347) (62656347) (A8B5-2A6C-0030-4CC0-4848) or this 62656347, 62656347, 62656347, A8B5-2A6C-0030-4CC0-4848

and you can see how the codes are separated.

Just **copy** and **paste** the individual pieces into the **Credits Page** of FS Instant Approach 2022 and then press the **Register Program** button. We do NOT recommend that you *type* the codes as the slightest mistake means it will not work.



(This is an example - you must use the data you were sent).

Once your program is registered you will no longer be in DEMO mode.

You do not need to be connected to the internet when you enter your codes.

IMPORTANT REGISTRATION TIP!

If the registration codes are rejected - the two most common reasons are:

- 1. The codes have not been entered correctly. **Always** use **COPY** and **PASTE** unless you are typing from a label inside a boxed version.
- 2. The user is entering the codes into *the wrong product!* Your codes will work **only** with FS Instant Approach 2022 for X-Plane.

They are not for any other product!

Troubleshooting

FSInventions Forum

Check the FSInventions Forum: [www.FSInventions.Com/Forum.Asp]

Whatever difficulty you may experience, others may be able to help, and its a great place to meet others who are using the same products as you!

Run as Administrator

Windows security has become tighter in recent versions and in order for FS Instant Approach 2022 to function correctly it is necessary that:

- The same user installed X-PLANE and FS Instant Approach 2022.
- That same user is running X-PLANE and FS Instant Approach 2022.
- That user is an administrator on that PC.

Even if you are the only person who uses the PC and you are its "administrator" of Windows security...

...you should always launch FS Instant Approach 2022 as an administrator or Windows may prevent operations such as saving your own data to your PC.

To do this just right click on the icon which launches FS Instant Approach 2022 and choose "Run as Administrator" - you can also indicate that this is a permanent choice in the "Properties" of the icon - accessed by a right click - in the "Advanced" button on the "Shortcut" tab.

Positioning Aircraft for an Approach

If you want to fly an approach at a location which is a considerable distance from the aircraft's present location, you may notice that occasionally, when you press Ctrl Shift P to *position* the aircraft ready to fly the approach you just created with FS Instant Approach, the aircraft is instead positioned on the ground at the nearest runway or in an undesirable attitude. If this occurs, **simply press Ctrl Shift P again** and the aircraft will be positioned in the air ready to fly the approach.

You will also notice that retractable gear will be up - for technical reasons we had to choose up or down and in almost all cases 'up' is a better place to start to avoid flying with the gear down too fast or on a long approach. In addition for technical reasons the autopilot has to be set (note *set* - not *engaged*) and we've put values into it which mirror the aircraft's current heading, altitude and speed.

END-USER LICENSE AGREEMENT

This End-User License Agreement ("EULA") is a binding legal agreement between yourself and FSInventions; when you click to "agree" when installing this software, you indicate your approval of these terms and conditions, at which point this EULA becomes a legally binding agreement between yourself and FSInventions.

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