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How to Properly Load a Flight Plan and a Flight

This is possibly the most misunderstood area of Microsoft Flight Simulators, and frankly it's no wonder, because Microsoft incorporated an extremely complex methodology in their design. You'll note that the caption reads 'Load a **Flight Plan** and a **Flight**'. I made this distinction because there are two completely different principal components that comprise a flight. Let's break these down.

The two main files are:

The Flight Plan File (.PLN)

The Flight File (.FLT)

It's Your Plane (IYP) needs **BOTH** of these files in order to operate properly.

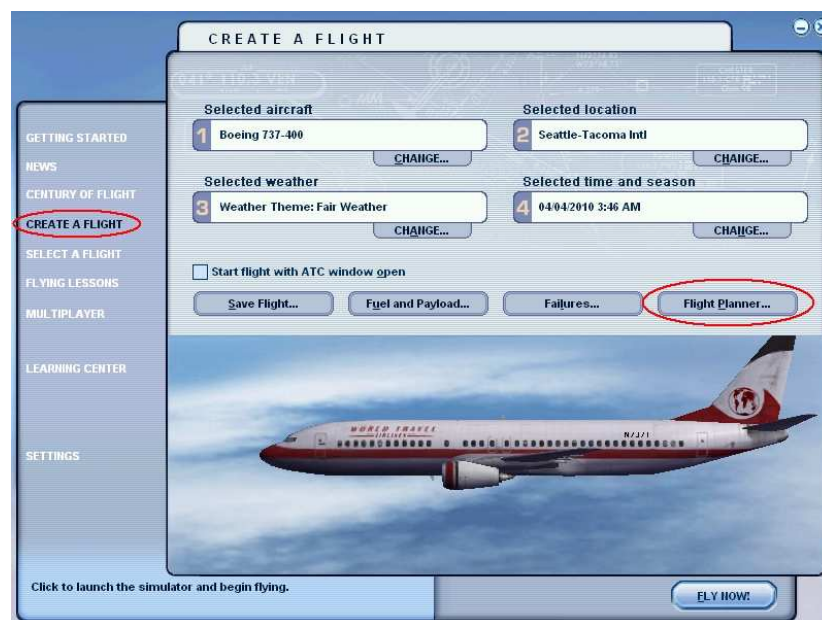
FS9 Example:

There are basically three ways of establishing a **Flight Plan** within the simulator...

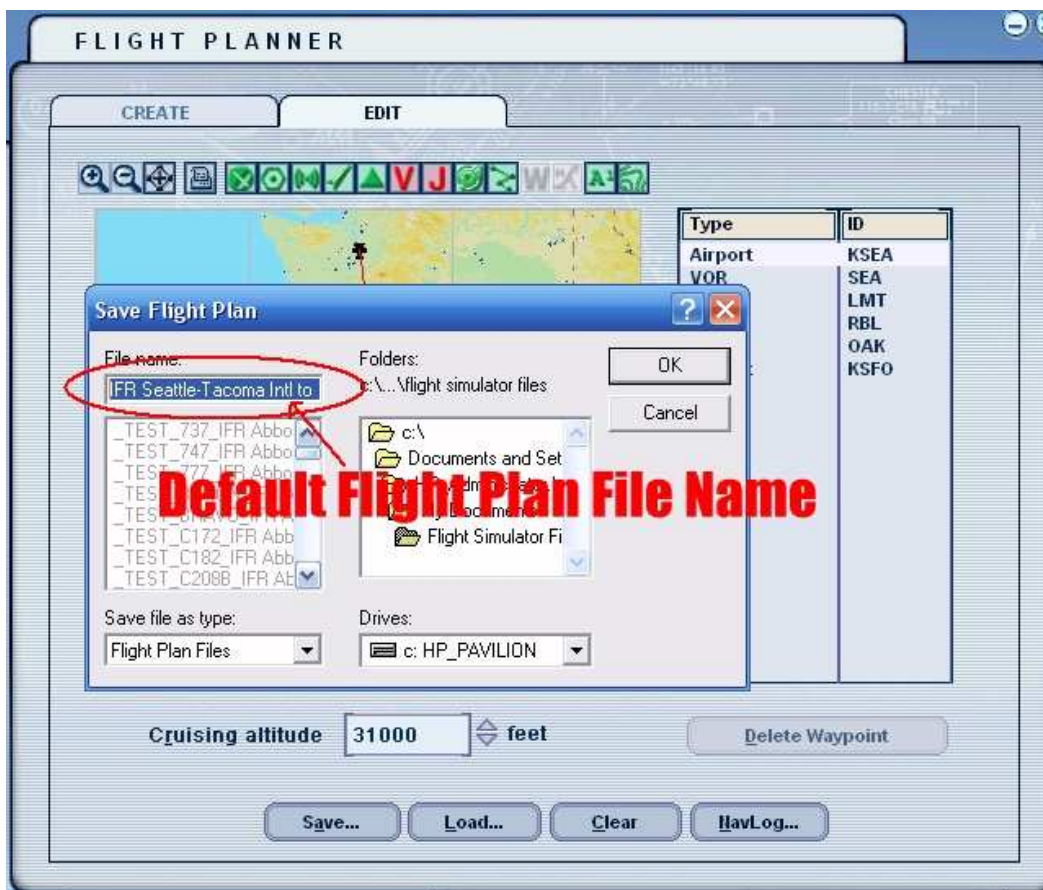
- 1) Create a Flight Plan during the 'Create a New Flight' stage
- 2) Create a Flight Plan after the aircraft is loaded
- 3) Load a previously created Flight Plan

1. Create a Flight Plan during the 'Create a New Flight' stage:

Here's an example. You launch **FS9**, click on **CREATE A FLIGHT**, select a **Boeing 737** aircraft, select the **Weather**, set the **Season, Date and Time**, then click on the **Flight Planner** button.



When you click on **Flight Planner**, a new window pops up where you create a **Flight Plan** (in this example) from Seattle to San Francisco.



You define the **Origination** (departure) and **Destination** airports (in this case Seattle-Tacoma and San Francisco respectively), select **IFR** and **High-altitude airways**, create the **Route** by clicking on the **Find Route** button, and then by choosing to use the default simulator file names, you create a file called:

IFR Seattle-Tacoma Intl to San Francisco Intl.PLN

When you click on the **OK** button on an **XP** operating system, the **Flight Plan** file is stored in your documents area... e.g.,

**C:\Documents and Settings\
[USERNAME]\
My Documents\
Flight Simulator Files\
IFR Seattle-Tacoma Intl to San Francisco Intl.PLN**

When you click on the **OK** button on a **Vista** or **Windows 7** operating system, the **Flight Plan** file is stored in your documents area... e.g.,

```
C:\Users\  
[USERNAME]\  
Documents\  
Flight Simulator Files\  
IFR Seattle-Tacoma Intl to San Francisco Intl.PLN
```

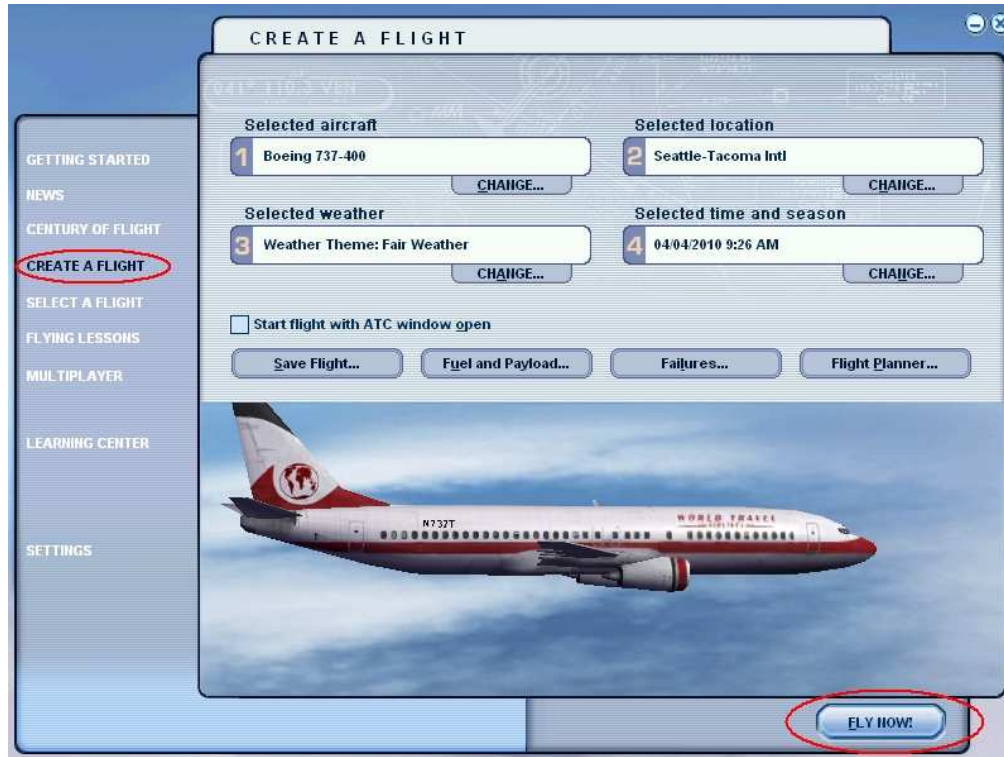
Note the file extension .PLN

You then click **Fly Now**.

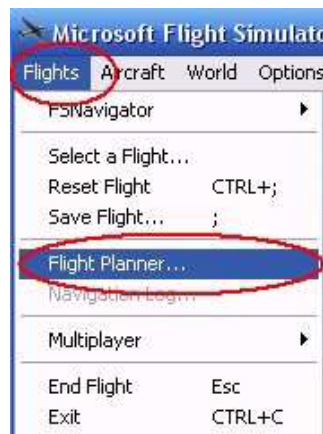
You bring up your **GPS**, and there's your **Flight Plan**.

2. Create a Flight Plan after the aircraft is loaded

In this case you launch **FS9**, click on **CREATE A FLIGHT**, select a **Boeing 737** aircraft, set the **Weather**, set the **Time and Season**, and then click on the **Fly Now button**.



Once the aircraft is loaded, you select **Flights** > **Flight Planner** on the **FS9** menu...

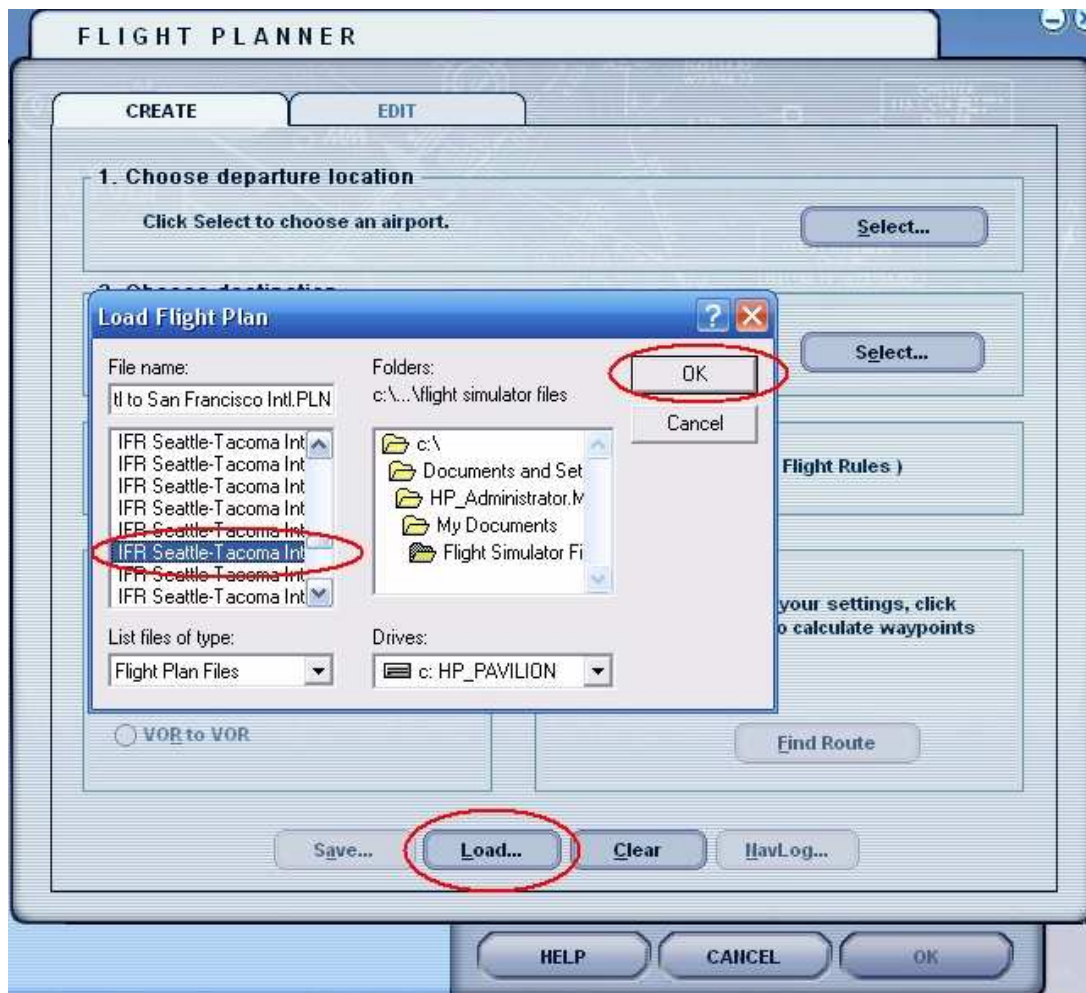


Once again, using our example, when you click on the **Flight Planner**, a new window pops up where you create a **Flight Plan** from Seattle to San Francisco. You bring up your **GPS**, and sure enough, there's your **Flight Plan**.

3. Load a previously created Flight Plan

In this example, you basically repeat the same steps as detailed in the first example above. You launch **FS9**, click on **CREATE A FLIGHT**, select a **Boeing 737** aircraft, select the **Weather**, set the **Season, Date and Time** then click on the **Flight Planner**.

However, in this case you click on the **Load...** button. The Flight Planner window pops up and you select a previously created **Flight Plan** from the drop down list then press **OK**.



You then click on **Fly Now**.

You bring up your **GPS**, and once again, there's your **Flight Plan**.

Using any of the foregoing examples installs a Flight Plan into the simulator... but NOT a Flight.

Create Your Flight File

You now need to **Save** and **Select** your **Flight**. To do this, click on **Flights** on the main menu bar of the simulator, and select **Save Flight**.



Create a name for your **Flight**... e.g., **Seattle-San Francisco-737** then press **OK**.



After clicking the **OK** button, the **Flight** file is stored in your documents area on an **XP** operating system... e.g.,

**C:\Documents and Settings\
[USERNAME]\
My Documents\
Flight Simulator Files\
Seattle-San Francisco-737.FLT**

On a Vista or Windows 7 operating system, the file is stored here:

**C:\Users\
[USERNAME]\
Documents\
Flight Simulator Files\
Seattle-San Francisco-737.FLT**

Note the file extension .FLT

Select Your Flight File

Now that you have **Saved** the **Flight** file, you need to **Select** it. To do this, click on **Flights** on the main menu bar of the simulator, and click on **Select a Flight...**



Select your previously saved file: **Seattle-San Francisco-737.FLT**.

You're ready to go!

Flying a Previously Created Flight

If you decide that you wish to fly the Seattle to San Francisco Boeing 737 flight again at some point in the future, you simply **launch FS9**, click on **SELECT A FLIGHT**, under **Choose a Category** select **My Saved Flights**, then under **Choose a Flight**, select your previously saved flight named:

Seattle-San Francisco-737.FLT

You're ready to go!

If you follow the foregoing procedures, Michelle will love you!



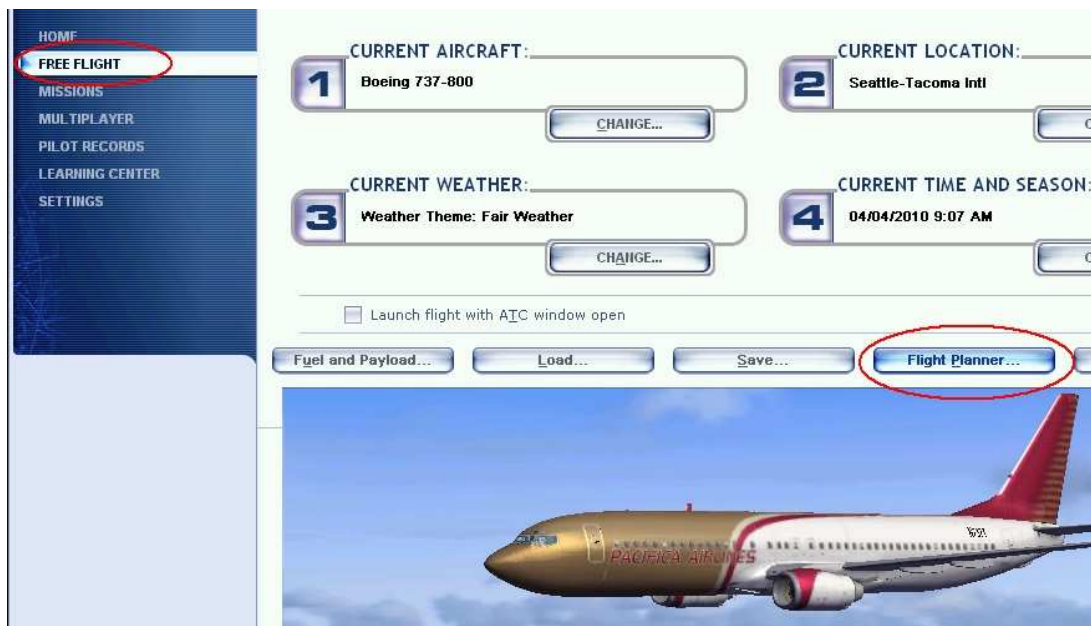
FSX Example:

There are basically three ways of establishing a **Flight Plan** within the simulator...

- 1) Create a Flight Plan during the 'Create a New Flight' stage
- 2) Create a Flight Plan after the aircraft is loaded
- 3) Load an previously created Flight Plan

1. Create a Flight Plan during the create a new flight stage:

Here's an example. You launch **FSX**, click on **FREE FLIGHT**, select a **Boeing 737** aircraft, select the **Weather**, set the **Season, Date and Time** then click on the **Flight Planner**.



When you click on the **Flight Planner**, a new window pops up where you create a **Flight Plan** (in this example) from Seattle to San Francisco. You define the **Origination** (departure) and **Destination** airports (in this case Seattle-Tacoma and San Francisco respectively), select **IFR** and **High-altitude airways**, create the **Route** by clicking on the **Find Route** button, and then, by choosing to use the default simulator file names, you will create a file called:

IFR Seattle-Tacoma Intl to San Francisco Intl.PLN

When you click on the **OK** button, on a **XP** operating system, the **Flight Plan** file is stored in your documents area... e.g.,

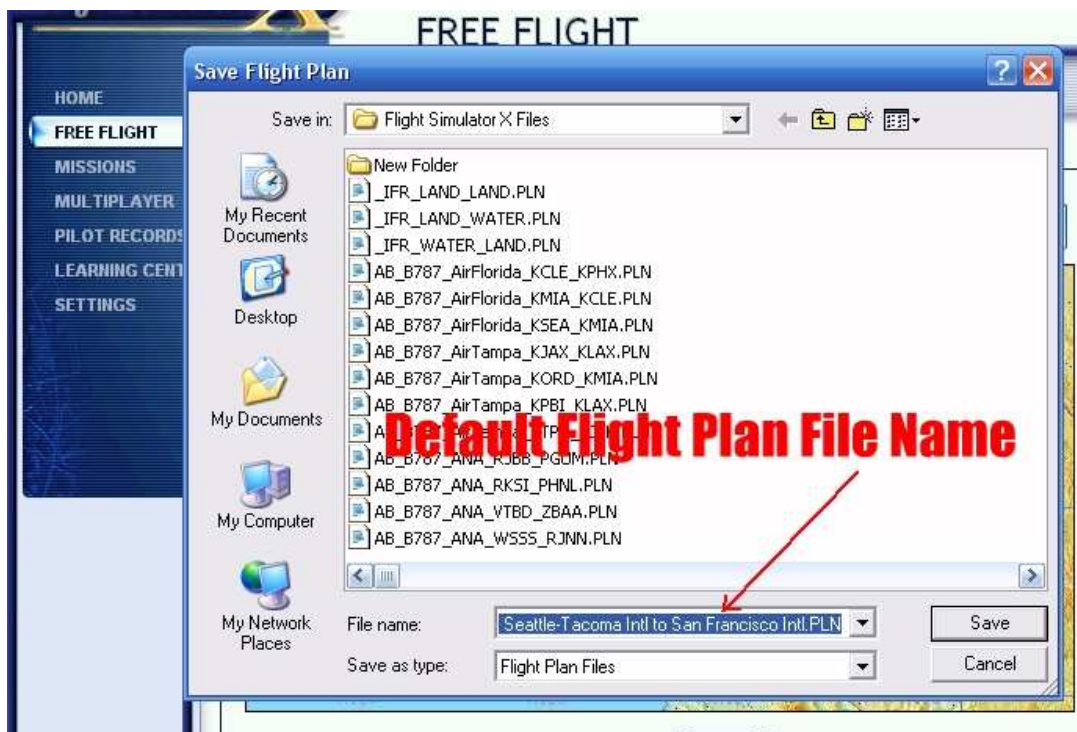
**C:\ Documents and Settings\
[USERNAME]\
My Documents\
Flight Simulator X Files**

IFR Seattle-Tacoma Intl to San Francisco Intl.PLN

When you click on the **OK** button on a **Vista** or **Windows 7** operating system, the **Flight Plan** file is stored in your documents area... e.g.,

C:\Users\
[USERNAME]\
Documents\
Flight Simulator X Files\
IFR Seattle-Tacoma Intl to San Francisco Intl.PLN

Note the file extension .PLN

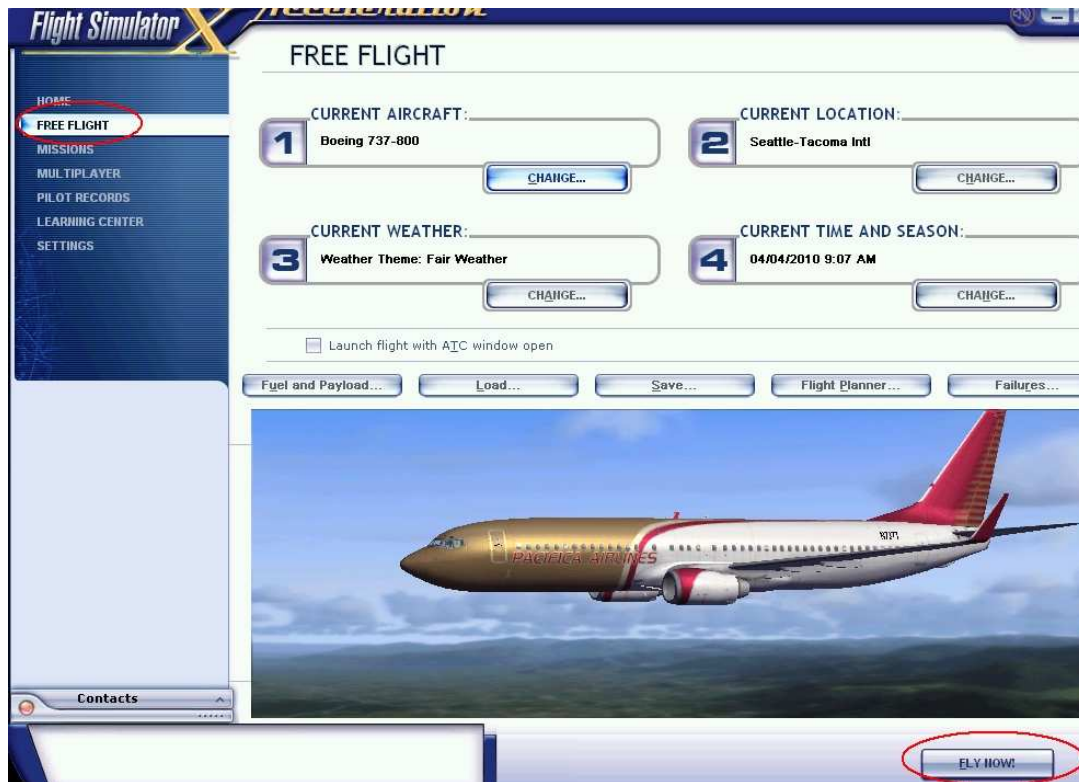


You then click **Fly Now**.

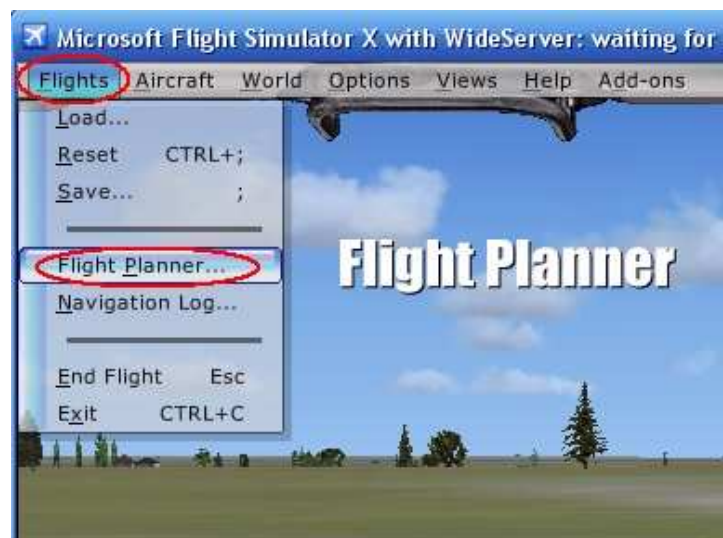
You bring up your **GPS**, and there's your **Flight Plan**.

2. Create a Flight Plan after the aircraft is loaded

In this case you launch **FSX**, click on **FREE FLIGHT**, select a **Boeing 737** aircraft, set the **Weather**, set the **Time and Season**, and then click on **Fly Now**.



Once the aircraft is loaded, you select **Flights > Flight Planner** on the **FSX** menu...

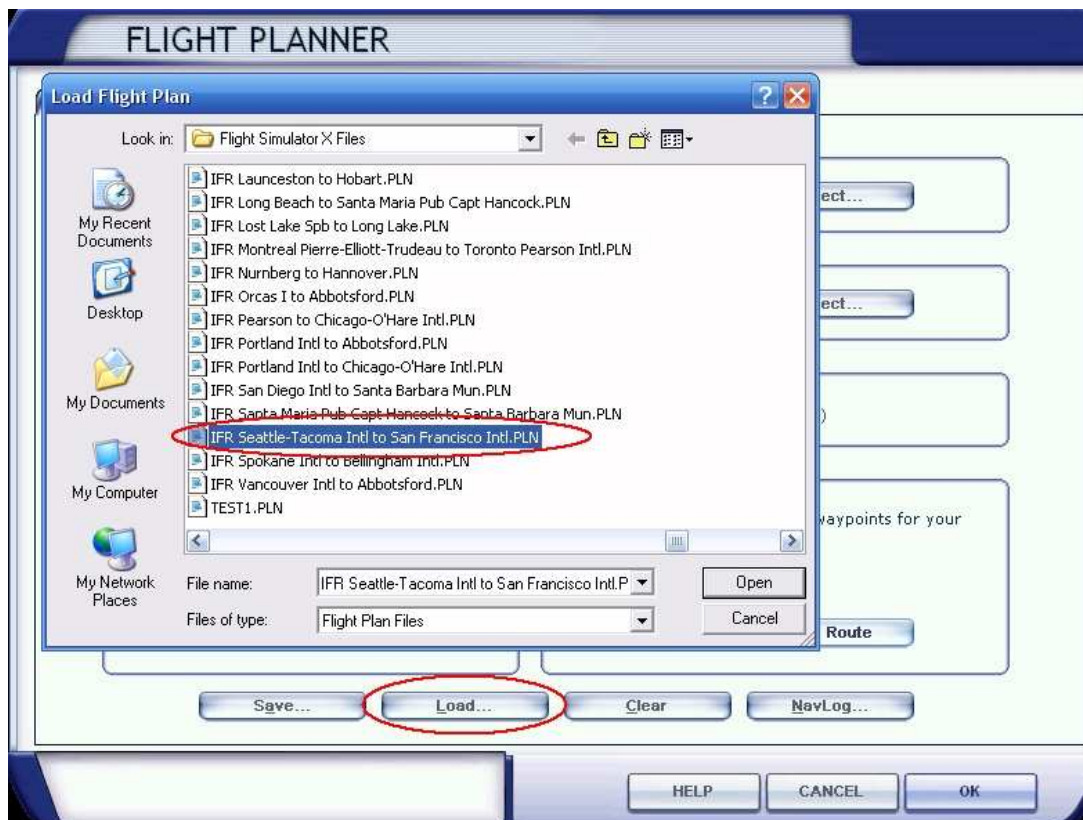


Once again, using our example, when you click on the **Flight Planner**, a new window pops up where you create a **Flight Plan** from Seattle to San Francisco. You bring up your **GPS**, and sure enough, there's your **Flight Plan**.

3. Load a previously created Flight Plan

In this example, you basically repeat the same steps as detailed in the first example above. You launch **FSX**, click on **FREE FLIGHT**, select a **Boeing 737** aircraft, select the **Weather**, set the **Season, Date and Time** then click on the **Flight Planner**.

However, in this case you click on the **Load...** button. The **Flight Planner** window pops up and you select a previously created **Flight Plan** from the drop down list then press **OK**.



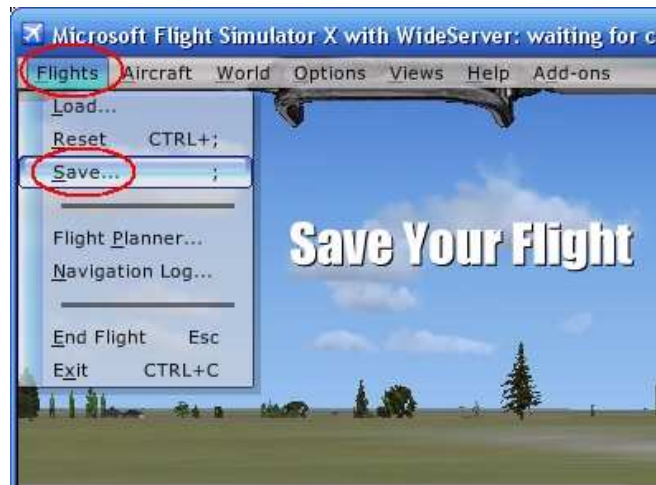
You then click on **Fly Now**.

Once again, you bring up your **GPS**, and sure enough, there's your **Flight Plan**.

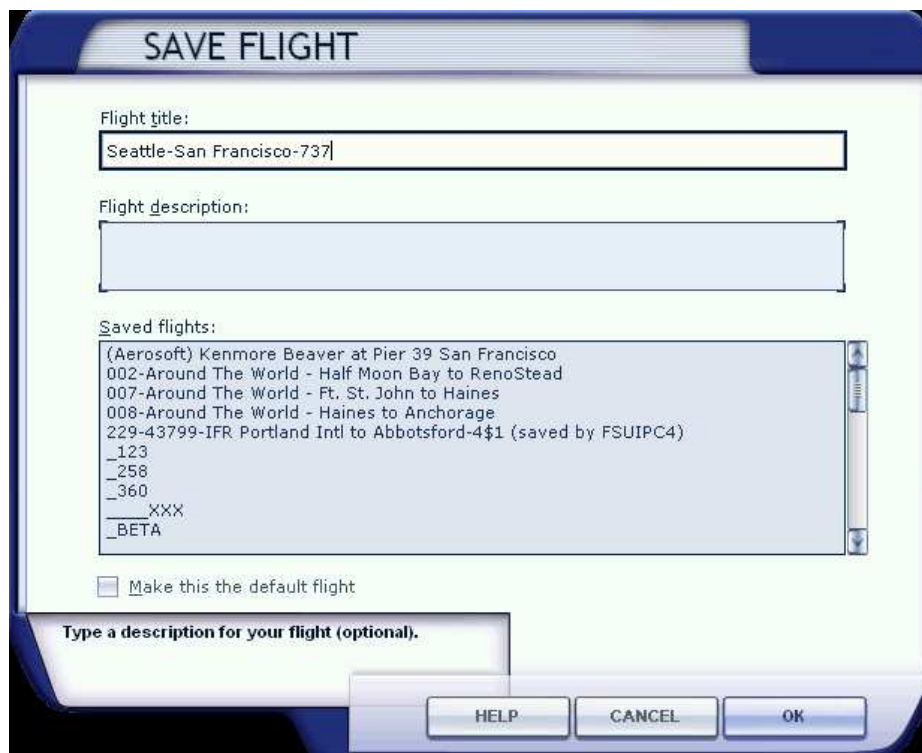
Using any of the foregoing examples installs a Flight Plan into the simulator... but NOT a Flight.

Create Your Flight File

You now need to **Save** and **Select** your **Flight**. To do this, click on **Flights** on the main menu bar of the simulator, and select **Save**.



Create a name for your **Flight**... e.g., **Seattle-San Francisco-737** then press **OK**.



After clicking the **OK** button, the **Flight** file is stored in your documents area... e.g.,

```
C:\Users\  
[USERNAME]\  
Documents\  
Flight Simulator X Files\  
Seattle-San Francisco-737.FLT
```

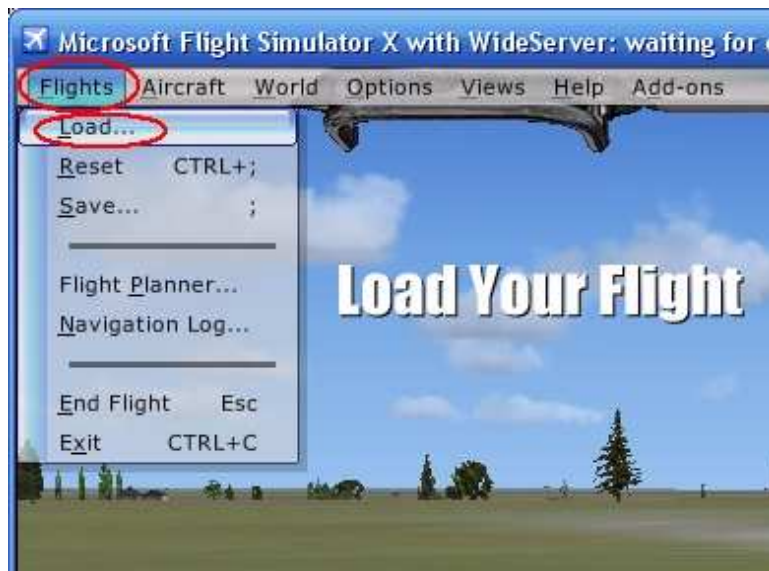
When you click on the **OK** button on a **Vista** or **Windows 7** operating system, the **Flight Plan** file is stored in your documents area... e.g.,

```
C:\Users\  
[USERNAME]\  
Documents\  
Flight Simulator X Files\  
Seattle-San Francisco-737.FLT
```

Note the file extension .FLT

Load Your Flight File

Now that you have **Saved** the **Flight** file, you need to **Load** it. To do this, click on **Flights** on the main menu bar of the simulator, and click on **Load...**



Select your previously saved file: **Seattle-San Francisco-737.FLT**.

You're ready to go!

Flying a Previously Created Flight

If you decide that you wish to fly the Seattle to San Francisco Boeing 737 flight again at some point in the future, you simply **launch FSX**, click on **FREE FLIGHT**, under **Title** select your previously saved flight named:

Seattle-San Francisco-737.FLT

You're ready to go!

If you follow the foregoing procedures, Michelle will love you!



Is My Flight Properly Set Up?

There's a sure-fire way to know that you have your flight and flight plan properly loaded before you takeoff. Simply say...

"Bring up the ACARS window"

Ensure that **ALL** of the required fields are loaded with the correct data. For example:

REQUISITE INFORMATION

All of the requisite data must be present before ACARS logging will start. Namely:

- **Airline** - Will display It's Your Plane - PRIVATE unless flying with a VA
- **IATA** - Will display IYP unless flying with a Virtual Airline
- **Registration** - Actual Tail (Registration) Number of the aircraft being flown
- **Select Call** - A 4-character Selective Calling Code that is randomly generated by IYP
- **Call Sign** - Is derived from the Flight Number of the aircraft being flown
- **Pilot #** - The IYP User's Number, unless the pilot is flying with a VA (more later)
- **Dept ICAO** - The departure airport ICAO pulled from the Flight Plan
- **Dest ICAO** - The destination airport ICAO pulled from the Flight Plan
- **Altitude** - The planned Flight Level pulled from the Flight Plan
- **Aircraft** - An IYP formulated 4-character code for the aircraft being flown
- **Route** - pulled from the Flight Plan (unless Project Magenta then FMC)

Here's what your ACARS window should look like if you are flying as an It's Your Plane user (i.e., not associated with a Virtual Airline)

ACARS - Aircraft Communications Addressing and Reporting system

It's Your Plane
Redefining Reality IYP

ACARS System **ACTIVATED**

Local Date / Time: 10/23/2009 12:36
UTC Date / Time: 23/10/2009 16:36

| Airline | IATA | Registration | SelCall | Call Sign | Online |
|---------------------------|------|--------------|---------|-----------|--------|
| It's Your Plane - PRIVATE | IYP | C-IYPT | LFPK | C-IYPT | No |

| Pilot # | Dept ICAO | Dest ICAO | Alt ICAO | Altitude | Aircraft | Comm | PAX | Cargo |
|---------|-----------|-----------|----------|----------|----------|-------|-----|-------|
| 10000 | TNCA | SVJC | | 6000 | C172 | Voice | | |

Route: ABA ITSEL PRG

SelCall Will be Different

When you finished verifying the information, simply say...

"Kill the ACARS window"

MyMusic Sub-Folders

IYP Pilot Number 13934 posted the following request on the IYP Forum:

"I really like the My Music feature - I can listen to my music on long flights. Would it be possible for us to create play lists so we can have selections play instead of the whole list? It would be nice to be able to tell Michelle to "Play My Music List xxxx"."

Before this addition, one would simply say, "My Music On" or "My Music Off" to turn on and off the playback of personal MP3 music, which you have stored in the MyMusic folder, under the simulator's sound folder.

[Simulator Root Folder]\Sound\MyMusic

As of the release of IYP Version 4.1.0.181 you can add 10 sub-folders under the MyMusic folder... namely 0 through 9:



| Name | Size | Type | Artist |
|------------------------|----------|------------------|--------------|
| 0 | | File Folder | |
| 1 | | File Folder | |
| 2 | | File Folder | |
| 4 | | File Folder | |
| V313Ought To Be.mp3 | 4,241 KB | MP3 Format Sound | Robert Cezar |
| V401-Walking Alone.mp3 | 3,355 KB | MP3 Format Sound | Robert Cezar |

Referring to the above image, the 2 files named:

V313Ought To Be.mp3
V401-Walking Alone.mp3

will still be played by saying... "My Music On" as it always has. However, now you can say... "Play My Music 0", "Play My Music 1"... "Play My Music 9", to play the MP3 files located in their respective folders; 0 through 9.

Thanks Brett.

Approaching a Destination Airport with ILS

In answer to the question...

"When do I execute the Approach and Landing checklists?"

It depends to a great extent on the aircraft you are flying. Typically with General Aviation type aircraft (e.g. a Cessna C172, Baron 58, etc.), you would call for the checklists about 18 miles out. In the case of jetliners, turboprops, etc., you would do this at approximately 22 miles out, in order to give the plane ample time to slow down.



Making an ILS Approach

Referring to the image above, you can see that we are approaching the ILS equipped Runway 27 at the Victoria International airport (CYYJ) in British Columbia, Canada. The length of the arrow shown on the GPS is 6 nautical miles. Let's double this length to 12 miles and imagine this point in space (the green dot) as your **Entry Point**.

Define the Airport:

Ensure that you have given Michelle the **ICAO** for the destination airport; if you have a properly loaded **Flight Plan**, she will already know this. However, you can always say (using our example), "Make the destination airport Charlie, Yankee, Yankee, Juliet". Michelle will respond with, "Roger. Charlie, Yankee, Yankee, Juliet. Distance 43 miles. Airport altitude, 63 feet. The airport name is Victoria".

Load the ILS Approach Frequency:

Let's assume that ATC has assigned ILS Approach Runway 27 for landing. During your descent to the destination airport, you should say to Michelle, *"Load the ILS Approach frequency for runway two seven"*. She'll respond with, *"Navigation one set to the approach frequency of 108.7 for runway 27. I've set the course to 266"*.

Call For the Approach and Landing Checklists:

In this example, we are flying a heading of **300 degrees** towards the **Entry Point** in a jetliner, so when Michelle reports, *"22 miles - 11 o'clock"*, that's the time to say, *"Approach and Landing checklists"*. In this example, when Michelle asks, *"Do you want me to assist you?"* you'd reply in the affirmative.

NOTE: Michelle only reports the distance to the destination airport if you have previously executed the Descent checklist.

Following the above procedures will afford Michelle a sufficient amount of time to: detect the Localiser and say, *"The Localiser's alive"*; find the Glideslope and say, *"The glideslope's alive"*; and then as the aircraft intersects the Localiser, say, *"Switching to ILS Approach mode"*, followed by, *"Locked on the Localiser"*, and finally, *"I've set the heading to the runway heading."* The aircraft will have time to slow down sufficiently so that Michelle can properly lower the flaps and gear, capture the Glideslope, etc.

IMPORTANT NOTE: If you attempt to execute the Approach and Landing checklists when you are too close to the airport, Michelle will not have time to perform her duties and will not even have time to detect the Localiser and/or the Glideslope. If you're too close, go around.

Auto-Landing Activated

If you have activated the IYP Auto-Landing feature, and if the aircraft supports Auto-Landing (see Supported Aircraft on the IYP website), then as the aircraft drops below 1,000 feet AAL, Michelle will say, *"Captain. I'll handle the landing. It's my plane."*

Auto-Landing Deactivated

If you have deactivated the IYP Auto-Landing feature, then as the aircraft drops below 1,000 feet AAL, Michelle will say, *"Captain. You'll be doing the landing. It's your plane."*

Making an ILS Back Course Approach

Performing an ILS Back Course approach is pretty much the same as a normal ILS approach, with a few exceptions. In this example, let's assume that we're flying into Bellingham International airport (KBLI) in Bellingham, Washington, and ATC has assigned us Runway 34 for landing. At Bellingham, the ILS Approach is Runway 16; Runway 34 is the **Back Course** approach. This means that Runway 34 has the same Localiser frequency as Runway 16, except that left is right, and right is left. In real life, some ILS Back Course approaches have a Glideslope called a "Localizer Back Course with Glide Slope". However, I've never found one in the Microsoft simulator.

Load the ILS Approach Frequency:

As you're descending towards the Bellingham airport, you'd say to Michelle, *"Load the ILS Approach frequency for runway three four"*. She'll respond with, *"The chosen*

runway does not have an ILS Approach. However, Navigation one is set to the back course frequency of 108.5 for runway 34. I've set the course to 340°.

Once again, take the length of the arrow on Runway 16 (shown on the GPS), double its length to represent about 12 miles, and imagine a point in space (the green dot) as your **Entry Point**.



As you approach the intersection of the Localiser, Michelle will say, "Captain. I recommend that you turn off the Altitude Hold when we turn onto final, so that you can manually control the rate of descent."

Michelle will detect the Localiser and say, "The Localiser's alive" and then as the aircraft intersects the Localiser, she will say, "Switching to Back Course Approach mode", followed by, "Locked on the Localiser", and finally, "I've set the heading to the runway heading."

At this point, you would switch off the Altitude Hold and, since Michelle is maintaining a near constant rate of speed, you can control the rate of descent by tweaking the elevator trim. Keep your eyes riveted on the Visual Approach Slope Indicator (VASI)... those red and white lights. Remember... too red, you're dead; too white, have a nice flight; red and white, you're doing alright!

The following link is a great resource for an in-depth description of ILS Approaches...

<http://stoenworks.com/Tutorials/ILS Back-Course Approaches.html>

Transition Altitudes

Takeoff and Climbout:

As you know, the built-in Microsoft ATC system only supports a single Transition Level of 18,000 feet anywhere in the world. When using either the Radar Contact 4 or LiveATC modes, the IYP system respects the "real" Transition Altitudes on a worldwide basis. For example, when departing Heathrow airport, the Transition Altitude is Flight Level 060 (FL060, or 6,000 feet).

Takeoff and Climbout within North America:

When flying in North America where the Transition Altitude is FL180 (18,000 feet), when using SimpleATC, SuperATC or Radar Contact, the IYP code works precisely as it has always worked in previous versions. That is to say, Michelle sets the altimeter to 29.92 as the aircraft climbs above 18,000 feet, and states,

"Captain... I have adjusted the altimeter".

Michelle used to then ask,

"Would you like me to maintain an optimized airspeed throughout the flight?"

THIS IS NO LONGER THE CASE EFFECTIVE IYP VERSION 4.1.0.181

(See **Jet Aircraft Airspeeds** below for more details)

Takeoff and Climbout Outside North America:

When flying outside North America in either SimpleATC or SuperATC modes, where the Transition Altitude is still considered to be FL180 (18,000 feet), Michelle sets the altimeter to 29.92 as the aircraft climbs above 18,000 feet, and states,

"Captain... I have adjusted the altimeter".

In the Radar Contact mode outside North America, Michelle sets the altimeter to 1013 MILLIBARS (same as 29.92 mercury) as the aircraft climbs above the Transition Altitude for that area of the world, and states, *"Captain... QNH has been reset"...* which is synonymous with saying, *"Captain... I have adjusted the altimeter"*. Other than that exception, everything remains the same as when flying in North America.

Descent:

On the way down, Michelle says, *"Don't forget to check the altimeter as we drop below the transition level"*.

NOTE: Michelle does NOT adjust the altimeter setting automatically.

ATC provides you with the current barometric pressure and you (the Captain) ask Michelle to set it as needed by saying, *"Altimeter xx.xx"*.

Descent with Radar Contact or LiveATC:

Upon executing the Descent Checklist, Michelle will provide you with the Transition Altitude for the destination airport. Other than that exception, everything remains the same as when flying in North America.

Jet Aircraft Airspeeds

Michelle Maintains an Optimized Airspeed:

Now to the issue of how Michelle used to ask...

"Would you like me to maintain an optimized airspeed throughout the flight?"

as the aircraft climbed through FL180 (18,000 feet). Effective IYP Version 4.1.0.181, this no longer occurs. Rather, Michelle now asks this question as part of the Takeoff Checklist procedure, **BEFORE** spooling up the engines as you get ready to take off.

Takeoff and Climbout:

Effective IYP Version 4.1.0.181, Michelle maintains 250 knots below 10,000 feet, then adjusts the airspeed to a value of approximately 11% below the barber pole, but without exceeding 80% to 85% on N1. In the event that N1 tries to exceed 85%, Michelle automatically reduces the rate of climb (not lower than 700 feet per minute) in order to maintain a maximum climb speed, without exceeding 85% N1.

IAS vs True Airspeed

Indicated Air Speed (IAS) value is read directly from the airspeed driven by the pitot-static system. An aircraft's indicated airspeed in knots is typically abbreviated KIAS for "Knots-Indicated Air Speed" (vs KCAS for calibrated airspeed and KTAS for true airspeed).

As the aircraft climbs higher, the air thins and the IAS will drop, even though your ground speed (GS) and/or KTAS may remain the same, or be actually increasing. Depending upon how high a jetliner climbs, the IAS could drop as low as 240 knots or less, depending upon winds aloft. Above 24,000 feet or so, you might prefer to do a "changeover" to view the Mach number instead, although this is not necessary.

You can ask Michelle respectively,

"What is our current indicated airspeed?"

and

"What is our current airspeed?"

to observe this phenomenon when climbing above approximately FL300.

Typical jetliners cruise between Mach .74 to Mach .86, depending on the particular jet you're flying.

NOTE: In FS9, when asking Michelle for the Mach Speed, she may respond with:

"Mach speed unavailable."

In this case, you need to "change over" to Mach Speed on the panel and try again.

Descending:

Michelle maintains this condition until descent. Once the aircraft drops below 15,000 feet, Michelle reduces the IAS to 250 knots in order to give the aircraft time to slow down to an actual airspeed of 250 knots or less, at/below 10,000. Once the aircraft drops below 12,000 feet, Michelle further reduces the IAS to 240 knots.

For Our Blind and Visually Impaired (BVI) Pilots:

There are a number of voice commands available for our blind and visually impaired pilots that will assist them in understanding and interpreting in-flight speeds and aircraft dynamics:

"Get current air speed"

"Get current ground speed"

"Get current indicated air speed"

"Get current mach speed"

"Get current vertical rate"

"Get current altitude"

Alternate Radar Contact Settings

In some instances, the regular IYP settings for the key depressions that control the Radar Contact Menu (RC) system may conflict with other third-party applications, in particular when using Radar Contact on a Client PC in a WideFS environment. By default, the NUMERIC selections within the RC Menu system are a combination of:

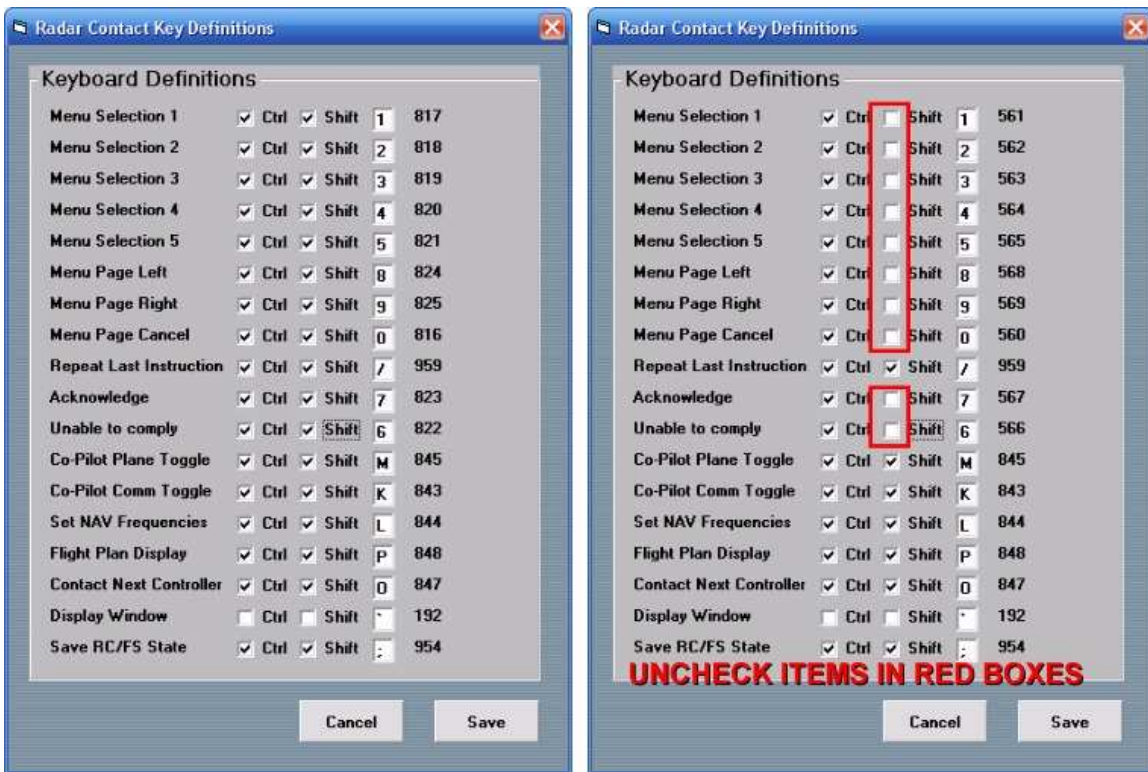
CTRL + SHIFT + <KEY 0-9>

By saying the phrase, "Use Alternate R C commands", the IYP system will change the above default settings to:

CTRL + <KEY 0-9>

By saying the phrase, "Use regular R C commands", the IYP system will change the key depressions back to the default settings.

Default settings are displayed to the left; the alternate settings to the right.



LiveATC Mode

As of revision 4.1.0.187, we have added a new selection called **LiveATC** in the ATC mode selector on the IYP Control panel to accommodate Vatsim, IVAO, etc.



This feature was required in order to permit the selection of the live ATC mode within the ACARS system.



When the LiveATC mode is selected, the live ATC provider (FPI, IVAO, Vatsim) can be selected in the ATC window of the ACARS system.

NOTE: The default selection is Vatsim.

NOTE: When a selection is made, it is "remembered" between IYP sessions.

It's Your Plane – It's My Plane

As of IYP revision 4.1.0.187, the phrases **"It's Your Plane"** and **"It's My Plane"** have been added in order to pass control to, and take control from Michelle during takeoff and landing respectively.

Overview

Let's say you're approaching the destination airport, and you say to Michelle, about 20 miles out...

"Approach checklist"

She responds with...

"Roger. We'll do the approach and landing checklists"

She then asks...

"Do you want me to assist you?"

If you answer in the **affirmative**, Michelle will begin running through the checklist items, and then take control of the actual landing procedures; like lowering the flaps and gear, calling out altitudes on the way down, and even auto-land the aircraft if that mode has been selected.

If, however, on approach you wish to take control but keep the checklist sequence in place, you can now say...

"It's My Plane"

At this point Michelle will still call out aspects of the approach, along with altitudes on the way down, but she'll no longer operate the controls, because... It's Your Plane!

Alternatively, had you declined by saying, "No thanks", when Michelle asked...

"Do you want me to assist you?"

then you are in control. However, on the way in, you can pass control back to Michelle and have her handle the controls by merely saying...

"It's Your Plane"

I hope this is clear!

I Don't Have a Scroll Lock Key

You've just unpacked your new PC and you want to use IYP **Push-To-Talk** feature, however, after looking everywhere, you discover that your keyboard doesn't have a **Scroll Lock** key! Now what?

If you're running **Vista** or **Windows 7**, type the phrase:

OSK

in the **Start Search** area. This little screen will pop up:



So there... you have a **Scroll Lock** key after all.

More details here:

<http://www.microsoft.com/windowsxp/using/setup/learnmore/tips/boutillier1.msp>

Calculating Fuel Consumption

What I've put together here is a way to calculate the approximate amount of fuel you will burn on a given flight, with a given aircraft. Before we get started, please keep in mind that while this method produces relatively good approximations, it is certainly no where near as accurate as the elaborate calculations real pilots use in computing fuel consumption for real flights.

Flight Plan and Flight

You need to have your flight plan and flight properly loaded before setting the fuel consumption values. If you require assistance in setting up your flight plan and flight information, please refer to the section above entitled:

How to Properly Load a Flight Plan and a Flight

at the top of this document.

Select the Aircraft

You need to have the designated aircraft defined BEFORE performing these calculations. i.e., don't calculate the fuel burn for a 737-400, then change the aircraft to a 747-400... everything will be wrong!

Using an Example

In order to best explain the process, let's say we're going to be flying a Boeing 777-300 from Boston (KBOS) to Montreal (CYUL) at 30,000 feet (Flight Level 300).

Bring up your Navigation Log (ALT F N) and up at the top of the page it will show the estimated fuel burn. In this example, let's say the Estimated Fuel Burn displays 9936 pounds.

Taxiing, Ground Holds, and Climb Out

Keep in mind that the above simulator estimation of 9936 pounds doesn't take into account the fuel that will be burned during taxi, on ground holds or climb out. So, let's add 15% to the simulator's number, giving us 11426 pounds ($9936 * 1.15$).

Weather, Holding Patterns, Go-Arounds and Diversions

Also, the simulator's estimation doesn't figure fuel reserves for Weather, Holding Patterns, Go-Arounds, or Diversions. So let's add an extra 10% to our 11426 pounds, giving us approximately 13140 pounds ($11426 * 1.1$). This minuscule amount represents only 4.3% of the Boeing 777's fuel capacity.

Tanks

Keeping fuel in the wings is important because it reduces the mechanical stress between the wings and the rest of the airframe by putting a significant portion of the weight to be lifted in the wings themselves. An aircraft with a tank in each wing and one tank in the centre, will usually fill the wing tanks first and only use the centre tank if needed to carry the full fuel load. It will then burn the fuel in the centre tank first during flight, only switching to wing tanks when the centre tank is nearly empty. But many aircraft have more than just two or three tanks, and then it gets more complicated.

Summary

This is just a basic guide on how to plan your fuel. It's up to you to efficiently use that fuel i.e. Using proper climb/decent rates, speeds, step climbs and all the other factors that come into play with fuel use.

FSX Fuel Calculations Cannot be Performed

You may have elected to install your FSX simulator in a non-standard configuration, which can result in restricting access to certain files necessary for Michelle to compute fuel consumption. In these cases, you need to create a small text file that will provide the path to these files.

Typically, navigation logs files are located in your Documents area... e.g.,

C:\Users\Robert\Documents\Flight Simulator X Files

or the UNC equivalent, as in:

\\Roberts-pc\Users\Robert\Documents\Flight Simulator X Files

The IYP application uses the **ROOT** above, namely:

C:\Users\Robert

or the UNC equivalent, as in:

\\Roberts-pc\Users

in order to build a path to the **FSX Navigation** Log file, as in:

C:\Users\Robert\AppData\Roaming\Microsoft\FSX

or the UNC equivalent, as in:

\\Roberts-pc\Users\Robert\AppData\Roaming\Microsoft\FSX

If you elected to save your flights in a customized folder, e.g.:

\\Roberts-pc\fsx files

the IYP system will be unable to develop the proper **ROOT** information.

In this case, you will need to create a text file called:

navlogpath.txt

in the **ROOT FOLDER** of your **FSX** simulator. The file must contain the complete UNC type PATH to the Navigation Log file location. e.g.:

\\Roberts-pc\Users\Robert\AppData\Roaming\Microsoft\FSX

If you have any problems creating this file, please contact me directly at:

Robert@RobertCezar.com

NOTE: In **WideFS** installations the **navlogpath.txt** file is to be installed on the **CLIENT** PC.

Call Sign Alteration

NOTE: The following is only relevant to the SuperATC mode of ATC communications.

NOTE: This feature has been added as of IYP Version 4.1.0.208

Background:

Before the addition of this feature, the It's Your Plane (IYP) application constructed the aircraft's **Call Sign** by concatenating the aircraft manufacturer's aircraft assignment, and the aircraft's Tail (Registration) number. For example:

Aircraft manufacturer assignment = Cessna
Tail (Registration) number = N176CM

comprising an IYP Call Sign of:

"Cessna November One Seven Six Charlie Mike"

Using the above example, the use of the simulator's default aircraft manufacturer's aircraft assignment of "Cessna", falls short of truly identifying the aircraft and it's capabilities.

Question:

"Is the aircraft a C172 Skyhawk, or a more powerful C182 Skylane?"

In addressing the foregoing, there are existing programmes that permit you to actually modify the simulator's ATC vocabulary and have ATC identify your aircraft as a "Skyhawk". i.e., the Microsoft ATC will address your aircraft as (e.g.),

"Skyhawk November One Seven Six Charlie Mike"

However, despite the changes to the Microsoft ATC language, the IYP programme still used the same method when constructing the Call Sign.

Using this Feature:

Use this feature to customise your aircraft's Call Sign, by adding a single line entry into the aircraft's configuration file (**aircraft.cfg**) located in the aircraft's folder.

For example, in the Microsoft Flight Simulator 2004 (FS9), the Cessna C172 aircraft's configuration file can typically be found here:

```
[DRIVE]:\  
Program Files\  
Microsoft Games\  
Flight Simulator 9\  
Aircraft\  
c172\  
aircraft.cfg
```

in the Microsoft Flight Simulator 10 (FSX), the Cessna C172 aircraft's configuration file can typically be found here:

```
[DRIVE]:\  
Program Files\  
Microsoft Games\  
Microsoft Flight Simulator X\  
SimObjects\  
Airplanes\  
C172\  
aircraft.cfg
```

Open this file using **NOTEPAD**, and locate the existing entry entitled:

```
[General]
```

Below the aforementioned entry, you will typically see the following:

```
[General]  
atc_type=Cessna  
atc_model=C172
```

Let's assume that you already have the aircraft's Tail (Registration) Number set to N176CM in the simulator's **Aircraft Name** area, and you want to have **SuperATC** recognise your **Call Sign** as:

```
"Skyhawk November One Seven Six Charlie Mike"
```

Add the following entry (displayed in **RED** below) to the aircraft.cfg file:

```
[General]  
atc_type=Cessna  
atc_model=C172  
iyp_atc=Skyhawk
```

Save your aircraft.cfg file, and close NOTEPAD.

NOTE: The use of the iyp_atc term Skyhawk will be used by SuperATC when constructing your Call Sign for **ALL** variations of the aircraft in this config.cfg file. i.e., if you have another aircraft with the Tail Number N700MS, then your SuperATC Call Sign will be:

```
"Skyhawk November Seven Zero Zero Mike SIerra"
```

Have fun!

Turn-Arounds and Continuing Flights

Overview (aka the Set Up)

Let's say you're the Captain piloting **Pacifica, Flight Number 1123**, (Call Sign Pacifica 1123) and you've just arrived at Vancouver International airport (CYVR) from Seattle's SEATAC airport (KSEA). After touch-down, you've contacted Vancouver Ground and they've assigned you a gate number. Your trusty IYP Co-Pilot works with you to execute the Taxi-to-the-Gate checklist, and upon reaching the gate, you call for the Parking checklist. After executing the Parking checklist with your Co-Pilot (First Officer), the doors are now open, and after waiting a few minutes, you'll note by the lack of cabin chatter that all of the passengers have successfully disembarked. The APU (Auxiliary Power Unit) is still running, the Cabin Music is still playing, the Navigation lights are still on, etc.

What is a Turn-Around?

It's now time to pick up some new passengers in Vancouver and return the aircraft to Seattle International airport, as (for example) **Pacifica, Flight Number 1124**.

What is a Continuing Flight?

It's now time to pick up some new passengers in Vancouver and continue on to (for example) Calgary International airport (CYYC). You may be retaining the Call Sign **Pacifica 1123**, or you may have a different Call Sign like, **Pacifica 1125**.

Microsoft ATC Constraints

Along with many other inherent constraints, the built-in Microsoft ATC facilities were never designed to allow for the performing of Turn-Arounds and/or Continuing Flights for commercial aircraft. The procedures that follow can be used to "cheat" the Microsoft ATC system into permitting Turn-Arounds and/or Continuing Flights.

What are Commercial Flights?

Commercial flights are defined as those where the aircraft being flown has an assigned **Flight Number**.

Setting up your Flight Number (Call Sign)

In **FS2004 (FS9)** you do the following:

1. From the simulator's Main menu bar, click on Aircraft (ALT+A)
2. Click on Select Aircraft (ALT+A)
3. Click on Change (ALT+C)
4. Select Flight Number (ALT+F)
5. Enter your Flight Number (e.g. 1123)
6. Click OK
7. Click OK

In **FSX** you do the following:

1. From the simulator's Main menu bar, click on Aircraft (ALT+A)
2. Click on Select Aircraft (ALT+A)
3. Click on Details (ALT+D)
4. Select Flight Number (ALT+F)

5. Enter your Flight Number (e.g. 1123)
6. Click OK
7. Click OK

NOTE: The procedures described herein will only work with commercial aircraft that possess a Flight Number as defined above.

NOTE: Although we have used passenger planes in the examples above, the same logic applies to Cargo aircraft with Flight Numbers.

Executing a Turn-Around

There are four basic things we have to do to accomplish a Turn-Around flight:

- **Reset ATC**
- **Load a Flight Plan**
- **Assign a Flight Number**
- **Prepare the Aircraft**

Reset ATC

After parking at the gate, you'll note that the Microsoft ATC system has you stuck in the arrival mode. In order to obtain IFR clearance back to Seattle, we need to reset the Microsoft ATC system so that we can contact Vancouver Clearance Delivery. We do not want to change the aircraft's position in Vancouver; we will be departing on the return flight from the same gate. However, in order to reset the ATC system we need to **change something!**

Do the following:

1. From the simulator's Main menu bar, click on World (ALT+W)
2. Click on Map (ALT+M)
3. Select Airspeed (ALT+S)
4. Make a small alteration to the airspeed (e.g., 0 to 1, 2 to 1, etc)
5. Click OK

You'll note that upon clicking OK, the simulator will re-load and the ATC system will be reset back to a basic VFR mode. Next, we need to...

Load a Flight Plan

We now need to either create and load a return Flight Plan (e.g. an IFR flight plan from CYVR to KSEA), or load an existing Flight Plan.

Create a Flight Plan

To create a return IFR Flight Plan from Vancouver to Seattle, do the following:

- From the simulator's Main menu bar, click on Flights (ALT+F)
- Select Flight Planner (ALT+P)
- Choose departure location (ALT+S)
- Select Country/Region (ALT+C)
- Press the HOME key to select Any
- Select Airport ID (ALT+I)
- Enter CYVR
- Press the ENTER key

- Choose destination (ALT+E)
- Select Airport ID (ALT+I)
- Enter KSEA
- Press the ENTER key
- Select Instrument Flight Rules (ALT+I)
- Select High altitude airways (ALT+H)
- Select Find Route (ALT+F)
- Select Cruising Altitude (ALT+R)
- Enter 15000 feet

NOTE: If your magnetic course is 180 to 359 degrees, use even thousands of feet. e.g. 14000 feet, 16000 feet, Flight Level 180, Flight Level 200, etc. If your magnetic course is 0 to 179 degrees, use odd thousands of feet. e.g. 15000 feet, 17000 feet, Flight Level 190, Flight Level 210, etc.

- Select Save (ALT+A)

NOTE: The Microsoft simulator will assign the default name of the Flight Plan as:

IFR Vancouver Intl to Seattle-Tacoma Intl.PLN

- In FSX Press Save (ALT+S) - in FS9 select OK
- Press OK

A Pop-Up window will appear asking the following:

Do you want Flight Simulator to move your aircraft to the departure airport listed on the flight plan?

- Select **No** (ALT+N)

IMPORTANT:

It is important that you answer "**No**" to the pop-up question otherwise your aircraft will automatically be moved away from your existing gate by the simulator.

Load an Existing Flight Plan

If you have previously created and saved an IFR Flight Plan from Vancouver (CYVR) to Seattle (KSEA), then do the following:

- From the simulator's Main menu bar, click on Flights (ALT+F)
- Select Flight Planner (ALT+P)
- Select Load (ALT+L)
- Select your existing Flight Plan
(e.g. IFR Vancouver Intl to Seattle-Tacoma Intl.PLN)
- Press Open
- Press OK

A Pop-Up window will appear asking the following:

Do you want Flight Simulator to move your aircraft to the departure airport listed on the flight plan?

- Select **No** (ALT+N)

IMPORTANT:

It is important that you answer "**No**" to the pop-up question otherwise your aircraft will automatically be moved away from your existing gate by the simulator.

After creating and loading, or simply loading an existing Flight Plan, you'll note that you can now access Ground operations to obtain IFR Clearance to Seattle on the Microsoft ATC menu.

Assign a Flight Number

Please refer to the section entitled:

Setting up your Flight Number (Call Sign)

on PAGE 35 to set the Flight Number for the return leg. In this example, we'll use **Pacifica Flight Number 1124**.

Prepare the Aircraft

Say to Michelle/Mike,

"Prepare aircraft for Turn-Around."

This will automatically swap the origination and destination airports in IYP.

Michelle will respond with,

"Captain, the aircraft is ready. Please ensure that we have a properly assigned Flight Number and set the top of the climb altitude for this leg. If you'll be using the ACARS logging system on this flight, please bring up the ACARS window and provide the route information. Thank you."

Set Top of Climb Altitude (Cruising Altitude)

You need to tell your IYP Co-Pilot Michelle/Mike what your Cruising Level will be for this flight. So, say the following phrase:

"Make the top of climb altitude one five thousand."

Provide the Route Information for ACARS

In order to get the Route information, ask Michelle....

"Bring up G P S."

Click on the button **FPL** (Flight Plan). You will note that there are three entries:

**CYVR
SEA
KSEA**

The **CYVR** and **KSEA** are the airports themselves. These are not waypoints and should not be entered into the **Route** text box. **SEA** is the only waypoint in this example.

Instruct Michelle to bring up the ACARS window by saying...

"Bring up ACARS window."

This will show the departure ICAO as **CYVR** and the destination ICAO as **KSEA**. The Flight Number **1124** will be displayed in the Call Sign box. However, the **Route** information will be blank,

Ensuring Caps Lock is turned on, enter **SEA** into the **Route** text box and then say...

"Kill ACARS window"

After completing the foregoing steps, you will note that the APU is still running, the new passengers are being welcomed with Cabin Music, etc.

Michelle is likely nagging you

"Are we ready for the pre-flight checklist?"

If you are still performing the above steps and are not yet ready, say...

"Wait a minute."

After you have finished entering the Route information and are ready to continue, say...

"Please continue."

From here on your Turn-Around flight is performed just as usual.

Executing a Continuing Flight

You have just arrived at Vancouver's International airport (CYVR), Pacifica 1123, from Seattle, and you're sitting at your assigned gate. You executed the Parking checklist and have saved and uploaded your ACARS data to the IYP servers. Some of the passengers have disembarked; others are still seated onboard waiting for the aircraft to continue on the next leg of its flight to Calgary (CYYC).

You need to follow the same procedures used for Turn-Around flights. The only difference is that you say to Michelle,

"Prepare aircraft for departure to Charlie Yankee Yankee Charlie."

From here on in, your Continuing flight is performed as usual.

Having Michelle make a Visual Approach

Before the release of IYP Version 4.1.0.128, our Blind and Visually Impaired (BVI) pilots have had to land their aircraft on runways equipped with an ILS (Instrument Landing System). However, difficulties arise when ATC sometimes instructs pilots to land on runways that are not so equipped, and they are told to make a Visual Approach. Obviously, this has been an impossible manoeuvre for BVI pilots.

As of the release of IYP Version 4.1.0.128, Co-Pilots Michelle or Mike, sitting next to their BVI captain, can now perform a visual approach on ANY runway. Naturally, our sighted users can also use this new IYP facility.

NOTE: This feature is NOT available in the FREE IYP version.

How it Works!

Having Michelle or Mike perform a **Visual Approach** is accomplished much in the same manner as one currently executes an ILS approach. Here's the sequence.

Let's assume that ATC has assigned you runway 16 which is not equipped with ILS. As you approach the airport, ATC will instruct you to turn to a heading to intersect with runway 16 and will ask you to report when the runway is in sight. Obviously, this is problematic for a BVI pilot. Therefore, simply report that you have the runway in sight, then say to Michelle...

"Prepare to land on Runway 16."

or,

"Prepare to make a visual approach on Runway 16."

She will respond with something like...

"Captain, I've made the course 162, and I'm turning the aircraft towards the approach entry point."

At this point, you'd likely execute the Approach and Landing checklists by saying...

"Approach checklist."

As the aircraft reaches the approach entry point (basically lining up with the runway), Michelle will say...

"Captain. I'm making our turn towards final approach."

As the aircraft progresses towards the runway, Michelle will determine when the aircraft needs to start its descent, and you'll hear her say...

"Captain. We're starting our descent."

Michelle executes the rest of the approach and landing procedures in basically the same manner as with an ILS approach.

Entry Point

The Entry Point for a given runway is approximately 7 miles from the runway's threshold for General Aviation (GA) aircraft, and approximately 16 miles out for all other type of aircraft.. Therefore, it's a good idea to make your turn onto base about 12 miles out for GA aircraft and 20 miles out for all other. If you're less than the Entry Point distance from the runway, and you ask Michelle to make a Visual Approach, she will actually turn around and head back towards the Entry Point in order to begin the approach.

Approaching the Destination Airport Special Considerations

As you approach the destination airport, and you get to about 20 miles out, you'll can say, for example...

"Prepare to make a Visual Approach on Runway 12 left."

Michelle will indicate that she's set the Course and is turning the aircraft to capture the Entry Point. You'll then call for the Approach and Landing checklists.

It you are flying a commercial aircraft with passengers, then you are likely also flying IFR. Therefore, ATC will likely be telling you to turn left, or turn right, perhaps descend even further, etc. Acknowledge all of these commands from ATC, but...

DO NOT ACT ON THESE INSTRUCTIONS

Why? Because Michelle is on a mission to get the aircraft on the ground in her own manner, and she'll take care of everything.

VFR or Free-Flight

It's also worth noting that if you are not flying IFR, and as a result are not being directed towards an assigned runway by ATC, you can ask Michelle to make the Visual Approach from anywhere within a 50-mile distance from the chosen runway. She will guide the aircraft from its current location to the Entry Point and begin the approach. This is extremely handy if you find yourself lost in space!

Landing Modes

As is the case with an ILS approach, there are different ways you can land the aircraft...

1. Do not execute the Approach and Landing checklists
2. Execute the Approach and Landing checklists but decline Michelle's help
3. Execute the Approach and Landing checklists, accept Michelle's help but manage the touchdown yourself
4. Execute the Approach and Landing checklists, accept Michelle's help and have Michelle Auto-Land the aircraft

NOTE: You CANNOT use this Visual Approach feature in modes 1 or 2 above.

Using Mode 3 (above)

As the aircraft descends below 1,000 feet AGL, Michelle will say...

"Captain, you'll be doing the landing. It's your plane."

As the aircraft nears touchdown, Michelle will automatically disengage the Auto-Pilot and release the Auto-Throttle (Speed Selector) and it's up to you to put the aircraft on the center line!

Mode 3 is selected by saying...

"De-activate Auto-Landing"

NOTE: This setting is "remembered" and remains in effect on subsequent flights.

Using Mode 4 (above)

As the aircraft descends below 1,000 feet AGL, Michelle will say...

"Captain, I'll handle the landing. It's my plane."

As the aircraft nears touchdown, Michelle will automatically release the Auto-Throttle (Speed Selector) and then Auto-Land the aircraft.

NOTE: Look under the [Supported Aircraft](#) section of the IYP Website for a list of the aircraft that can be auto-landed; look for "**Yes**" under the column **AL**.

Mode 4 is selected by saying...

"Activate Auto-Landing"

NOTE: This setting is "remembered" and remains in effect on subsequent flights.

Auto-Landing Accuracy

The accuracy of Mode 4 Auto-Landings is highly dependent upon environmental conditions, CPU speed, and in particular, crosswinds. In addition, crosswinds will have a greater effect in knocking smaller aircraft off course than larger commercial jetliners.

NOTE: Unless you are landing with near minimal crosswinds, I would strongly suggest that "Deactivate Auto-Landing" and manually put the aircraft on the centre-line.

Local Database

Please keep in mind that your local database needs to be created **BEFORE** the Visual Approach feature can be properly used. This is because the Visual Approach facility requires additional airport/runway information not found in the default database. For information regarding the construction and/or updating of a Local Database, please refer to the section entitled:

Creating and Updating Local Airport Database

on PAGE 52 of the IYP User's Manual.

Starting your Descent and Calculating your Descent Rate

It is often said that making a good landing starts with making good approach. This section is therefore aimed at giving you a few pointers on how to perform a good approach.

In the early days of aviation, few aircraft were pressurized. A pilot who waited until the last minute to start his descent, naturally descended very rapidly. This caused his passengers a lot of discomfort due to the rapid pressure changes on their eardrums. Understandably, Captain Droplikearock became very unpopular!

Naturally, jetliners are pressurized to compensate for these rapid changes. Nonetheless, nowadays nearly all pilots have adopted the 300 feet per mile rate of descent with un-pressurized aircraft to give the passengers a break.

When do I start my descent?

Your rate of descent should be about 300 feet per mile, or if you prefer, about 3,000 feet per 10 miles. So, let's assume that you are flying into Vancouver (CYVR) where the airport is (for all intents and purposes) at sea level, and you're cruising at 30,000 feet. You should begin your descent into Vancouver 100 miles from the airport.

$$30,000 / 300 = 100 \text{ miles}$$

Similarly, if you're cruising at 9,000 feet, you should begin your descent 30 miles out.

$$9,000 / 300 = 30 \text{ miles}$$

If you're flying into Denver International where the elevation is 5,431 feet above sea level, and you're cruising at 30,000 feet, then you take 30,000 less the airport's altitude to get the amount of feet you need to descend. E.g.,

$$30,000 - 5,431 = 24,569$$

Call it 25,000... that's close enough for government work!

$$25,000 / 300 = 83 \text{ miles.}$$

Okay... that was easy!

Final Approach

As stated above, for a 3 degrees glide path on approach, the descent rate should be about 300 feet per mile. Therefore if you are 6 miles out when you turn onto final approach, you should be at about 1,800 feet above the airfield elevation (AGL) when intercepting the glide path. If you are 10 miles out when you turn on final approach, you should be about 3,000 feet AGL when intercepting the glide path, etc.

Calculating Your Descent Rate?

I'll first give you the more complex equations, followed by a much simpler way to calculate all of this stuff.

To get the rate of descent, you take the number of feet you need to descend (in hundreds of feet) and multiply that by your groundspeed in knots. Then, multiply that by 2 and divide by one less than your distance from the destination in miles. That's your descent rate!

Here's an example. You're flying your Baron 58 and you're cruising at a speed of 120 knots at an altitude of 9,000 feet and you want to descend to 3,000 feet. And, you want to do this over a distance of 20 miles.

This means that we need to descend 6,000 feet over a distance of 20 miles. Expressing the 6,000 feet in hundreds means dropping the last 2 digits, which gives us 60. We then multiply 60 times our groundspeed of 120 knots, which gives us 7,200. Now, we multiply by 2 and we get 14,400. Finally, we divide 14,400 by the distance and we get a descent rate of 722 feet per minute.

Whew!

Here's a Much Simpler Way!

Simply multiply your current airspeed by 6!

$$120 * 6 = 720$$

So, make your rate of descent 720 feet per minute!

NOTE:

Isn't it nice to know that if Michelle is controlling the airspeed, she not only tells you when to start your descent, she also automatically calculates the optimum rate of descent for you?

Thank you Michelle!

Update your FSX ATC Voice Pack

It would certainly be nice if when flying for **It's Your Plane Virtual Air (IYP-VA)**, ATC would refer to your aircraft as...

"It's Your Plane 518. Descend and maintain 5,000."

So, let's do that.

There's a terrific FREELY downloadable programme called **EditVoicepack** that offers a simple interface to edit the file containing the ATC communication used in Microsoft Flight Simulator. It is possible to change the phraseology as well as add airline call signs, airports, and aircraft types.

EditVoicepack already contains thousands of ready made entries and it allows you to accelerate the existing voices for a more realistic experience and better handling of traffic dense environments.

The Process

First, go to this page:

<http://www.editvoicepack.com/>

and carefully read the documentation. Then DOWNLOAD, SAVE, UN-ZIP and INSTALL the EditVoicepack application.

After installation, you'll find it located under:

All Programs > EditVoicepack X

STOP!!!

There are a couple of things we need to take care of before launching the EditVoicepack application.

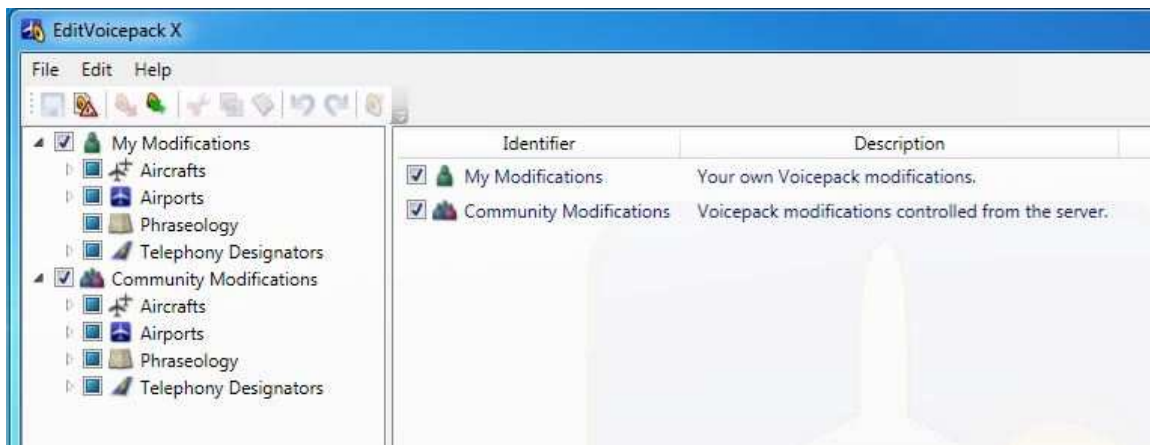
1. Ensure that **FSX** is **NOT RUNNING**. If FSX is running, close it!
2. You need the Voice Pack for **It's Your Plane**. You download it from here:

<http://www.itsyourplane.com/DB/iyvoicepack.zip>

DOWNLOAD and **UN-ZIP** this file into a folder you'll easily remember. The unzipped file is suitably called:

itsyourplane.evpmo

Great. Now, when you open the EditVoicepack programme (**All Programs > EditVoicepack X**), you'll see this:



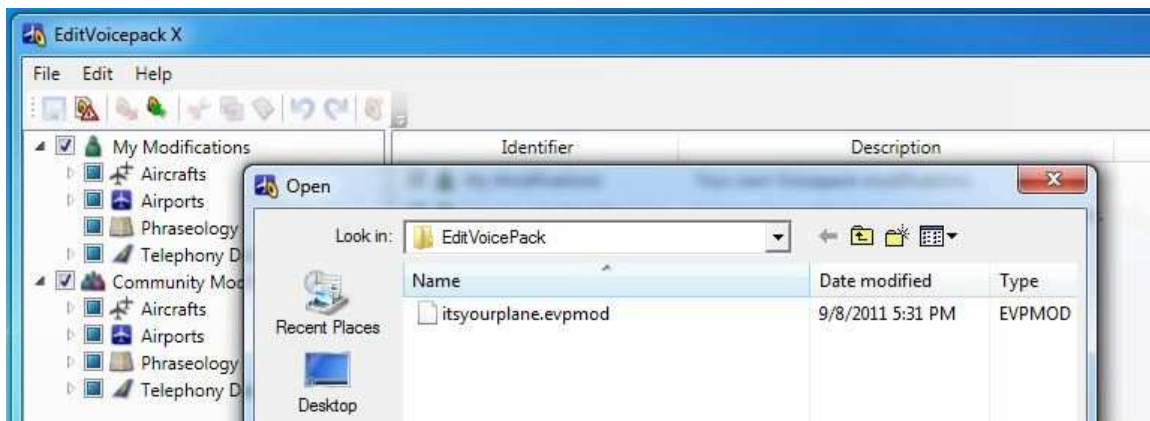
Now let's import the It's Your Plane Voice Pack.

Referring to the image above, click on **File**, then select **Import Modifications**.

The "Open" window will appear where you will locate the

itsyourplane.evpmod

file that you downloaded from the IYP site.



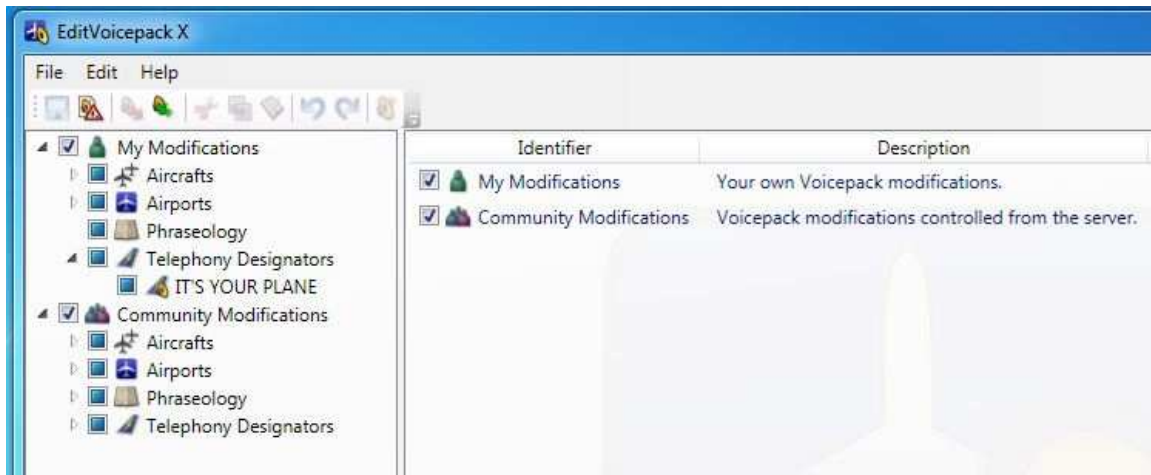
Select the file and press Open.

Verify that we've done the foregoing properly.

Click on the TINY ARROW next to the item called:

Telephony Designators

You should see IT'S YOUR PLANE listed under this heading as shown below...



Great!

Now click on the **File > Save**.

Finally, let's put it all together.

Click on **File > Update Voicepack**.

Options:

There are a number of options that you can use when compiling your newly created Voicepack. Please read the excellent documentation provided by the developer of this fine programme.

You're Done!

After the update has been processed, close **EditVoicepack X**, launch **IYP**, load your next It's Your Plane Virtual Air (IYP-VA) flight, and experienced the exciting difference!

Here's the User's Manual for EditVoicepack:

<http://www.editvoicepack.com/readme.html>

Have fun guys and girls!

Robert

PS. If you find that you no longer hear "**Experimental**", but rather now get "**real**" airline names, you can thank **Lars**... the developer of **EditVoicePack**. Please consider making a donation to support Lars' efforts as he constantly updates this fabulous FREE programme!

Altering a Runway's Threshold

ILS Approaches

Within the flight simulator, the ILS approach parameters (green funnels you observe in the Garmin GPS) that are used by the aircraft's auto-pilot to steer an aircraft to a runway's threshold on approach, are maintained within disparate scenery files, not actually synchronised with the runway scenery itself.

IYP Visual Approaches

When you ask Michelle (aka Mike) to perform a Visual Approach to a given runway, it is assumed that the destination runway is not equipped with ILS facilities. Naturally, you can still ask Michelle to perform a Visual Approach to a particular runway, even if it is ILS equipped.

How IYP Derives a Runway Threshold

IYP does not use disparate information for a Visual Approach, as is the case with an ILS approach. Rather, IYP grabs the Latitude and Longitude for the destination runway from the file called Local_IYPDB.XML located in the folder entitled IYPDB, under the root folder of your simulator. e.g.

```
C:\
  Program Files (x86)\
    Microsoft Games\
      Microsoft Flight Simulator X\
        IYPDB\
          Local_IYPDB.XML
```

The Local_IYPDB.XML file contains all of the information for every airport and their associated runways on a worldwide basis. This information is derived by extracting data from the simulator's actual scenery file... data used to actually "paint" the runway on the screen.

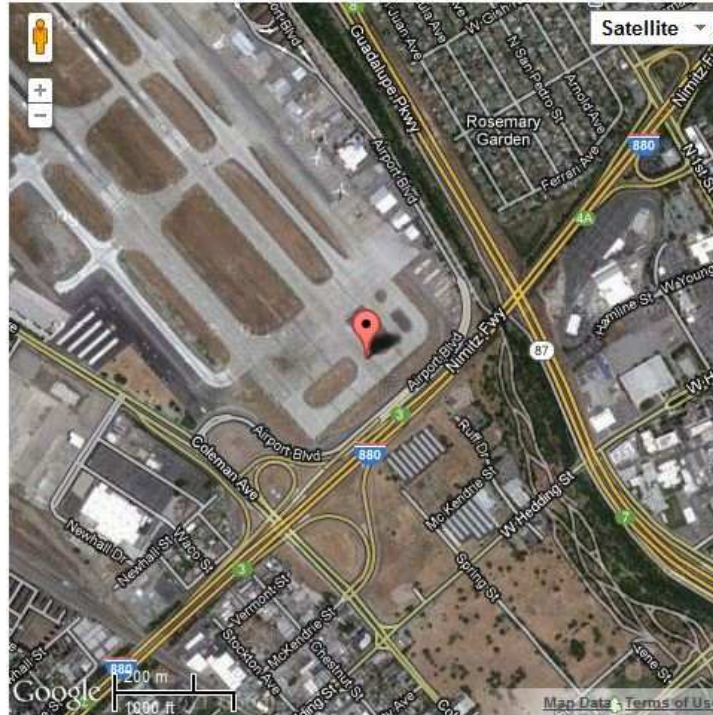
Every runway within this database contains the runway's Latitude and Longitude. Here's an example of the information for Runway 30R at KSJC, San Jose, California.

```
<Runway id="30R">
  <Len>11003</Len>
  <Hdg>302.890</Hdg>
  <Def>Concrete</Def>
  <ILSFreq></ILSFreq>
  <Lat>37.352692</Lat>
  <Lon>-121.915718</Lon>
</Runway>
```

The foregoing approach serves us well for the majority of runways worldwide. However, there are instances where the runway's threshold is displaced.

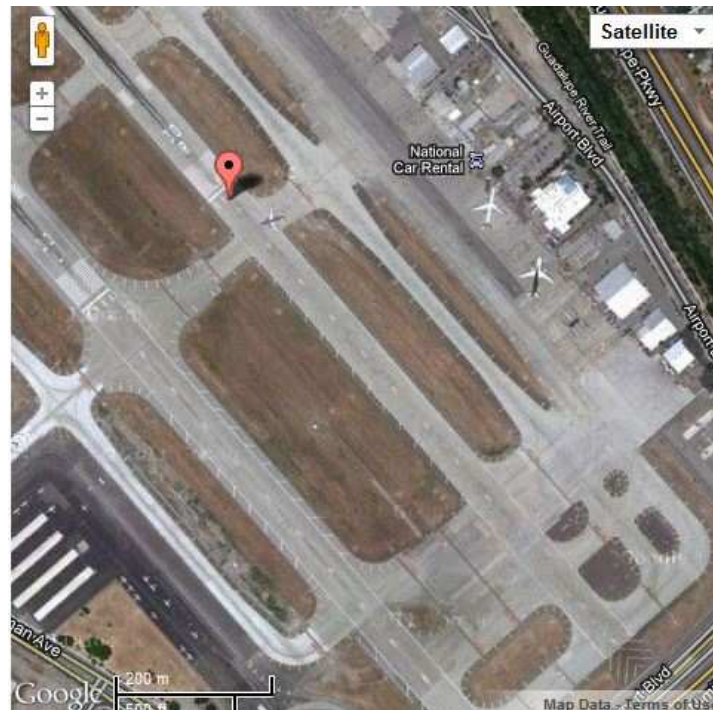
Displaced Thresholds

Runway 30R at KSJC is actually a perfect example of a runway where the threshold is displaced.



One can see that the runway's actual threshold (where 30L is displayed), is further down the runway, thereby shortening the actual runway. With the data unmodified, Michelle will touchdown well in advance of the displaced threshold.

We'd actually like to have Michelle use the proper threshold, down near the 30L markings. To wit...



Getting Latitude and Longitude for a Displaced Threshold

Using runway 30R at KSJC as an example, the simplest way to accomplish moving the runway's threshold is to create and/or load a flight plan where the origination airport is KSJC. Then using an IYP facility developed for our blind and visually impaired (BVI) pilots, say to Michelle...

"Michelle, let's taxi to and hold short of runway three zero right."

Michelle will SLEW the aircraft into position at the start of runway 30R.

Now, slowly taxi the aircraft down the runway to the displaced threshold location as displayed in the second image above.

Then say the phrase..

"Export aircraft position data"

Michelle will respond with...

"Your position data has been exported to a file called, IYPOSITIONDATA.TXT which can be found in the root folder of your simulator."

In the **IYPOSITIONDATA.TXT** file, you will observe two values representing the Latitude and Longitude of the aircraft's current position on the runway. e.g.:

37.3579874448638
-121.921528238242

Making Database Adjustments for a Displaced Threshold

Now you need to open the file called **Local_IYPDB.XML** located in the folder entitled IYPDB, under the root folder of your simulator. e.g.

`\\IYPDB\\Local_IYPDB.XML`

and (in this example) search for KSJC. Once you've located the airport data, scroll down to Runway 30R.

<Lat>37.352692</Lat>
<Lon>-121.915718</Lon>

Now carefully replace the existing **Lat** and **Lon** values with the data you've extracted from the **IYPOSITIONDATA.TXT** file, save your data, and close the file.

IMPORTANT NOTE: If you re-build your Local Database via the IYP Options Panel, the newly altered information will be overwritten. Therefore, please save the **IYPOSITIONDATA.TXT** data in a safe place so that you can easily replace these values after a re-build.

NOTE: In **WideFS** installations the Local_IYPDB.XML and IYPOSITIONDATA.TXT files are located on the **CLIENT** PC.

SmartStart[®] Enhancements

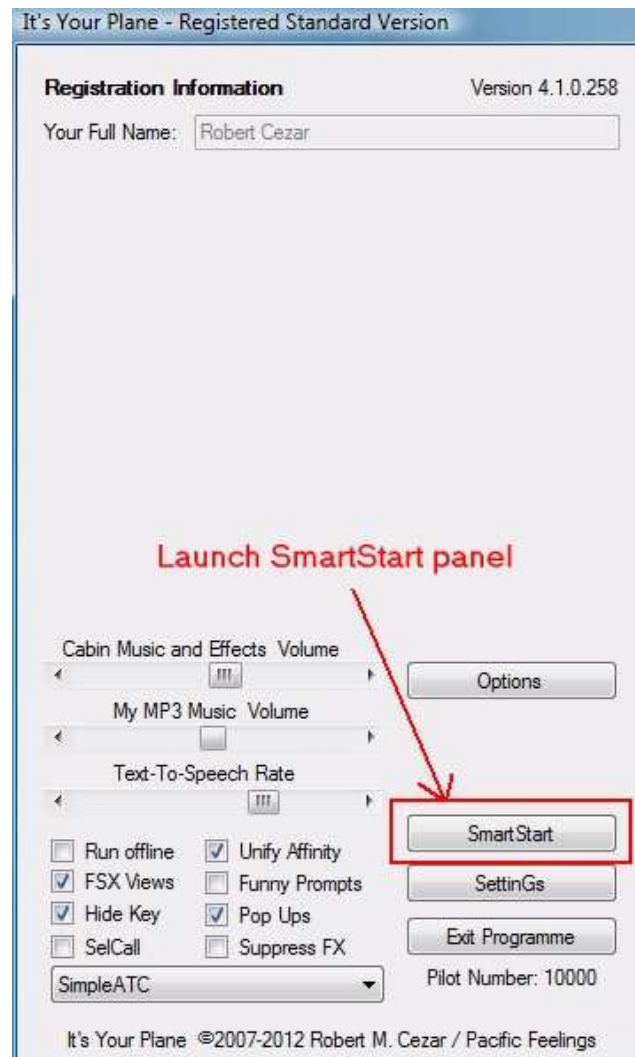
Overview

SmartStart is a remarkable facility that allows you to simplify the launching of applications and programmes for your flight session, including the ability to launch FS2002, FS2004 or FSX, Radar Contact, or any other programme you desire. Please refer to the section entitled **SmartStart** which can be found on PAGE 63 of the IYP Users' Manual for details.

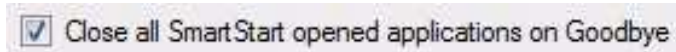
Shutting Down Programmes After IYP Session Closes

A number of IYP users have requested that the **SmartStart** feature built into IYP, also have the capability to automatically shut down all programmes that were opened by **SmartStart**. In addition, others have asked that **SmartStart** automatically launch a programme(s) when IYP closes.

With IYP running, minimise your simulator, then open the **SmartStart** panel by clicking on the **SmartStart** button on the IYP Control panel.



On the **SmartStart** panel, you will see a new checkbox entitled:



By placing a checkmark in this checkbox, when you...

say, **"Goodbye Michelle, and thank you"**

or...

say, **"Goodbye Mike, and thank you"**

or...

click on the **Exit Programme button** on the **IYP Control panel**

to end your IYP session, all applications that were opened by the **SmartStart** facility will be closed.

Launch Programme(s) After IYP Session Closes

Referring to the section entitled **SmartStart**, which can be found on PAGE 63 of the IYP Users' Manual, you will see an additional option under the **Open When** drop-down list entitled... **When IYP Closes**.



By selecting **When IYP Closes** the chosen programme will NOT be launched when IYP first runs, but rather when IYP closes.

This facility is useful for launching batch programmes (.BAT) to shut down other applications and/or processes that are running; ones that are no longer necessary after an IYP session is terminated. E.g., the Speech Recognition Engine (sapisvr.exe), etc.

Using 32-Bit Voice Fonts on 64-Bit Platforms

Start by installing your 32-Bit Voice Font (e.g. ATT DTNV1.4 Mike 16) per the instructions provided by the manufacturer of the Voice Font.

On both Vista 64 and Windows 7 64-Bit platforms, the computer's **Control Panel** applet for selecting the default voice only works with 64 bit voices (e.g. Anna).

In order to gain access to the 32 Bit Voices Fonts (e.g. ATT DTNV1.4 Mike 16), you need to gain access to the **32 Bit Speech Control Panel**.

To do this...

Press **Start > Run**

If the **Run** command is not visible in the list of commands, then...

Right click on the list
Select **Properties**
Select the **Start Menu** tab
Click on **Customize**
Scroll down to expose **Run Command**
Place a **check mark** in the box

In the **Run Command** dialog box, copy and paste the following in the **Open** list:

```
%windir%\SysWOW64\speech\SpeechUX\sapi.cpl
```

Press **OK**

The 32 Bit Control Panel applet will appear on the screen. Click on the...

Text to Speech

tab. From the...

Voice Selection

drop down list, select the 32 Bit Voice Font (e.g. ATT DTNV1.4 Mike 16)

Click on...

Preview Voice

to ensure that everything is working properly.

After doing so, launch your **simulator** and the **It's Your Plane** programme.

When you hear Michelle (aka Anna) say...

"Captain - It's Your Plane - We're ready to go."

minimise the simulator, to expose the IYP Control Panel. Click on button entitled

Options

Use the drop down list entitled:

Select Co-Pilot Voice Prompt

Select your 32-Bit Voice Font

Click on the button entitled:

Close Options Panel

The IYP programme will re-cycle and you will next hear your 32-bit Voice Font.

You're done!